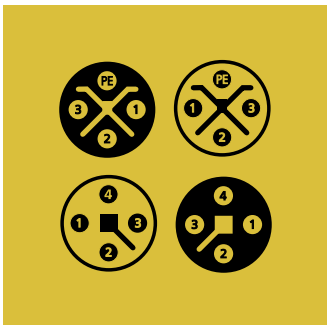
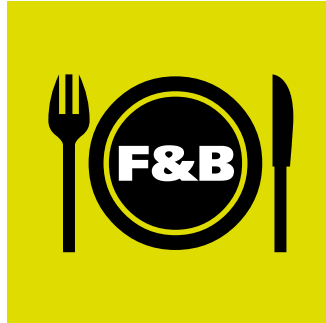
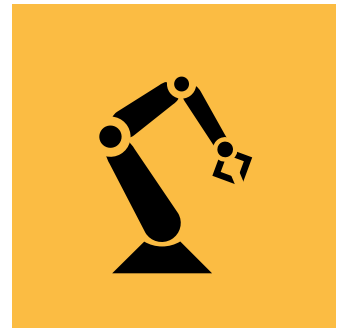
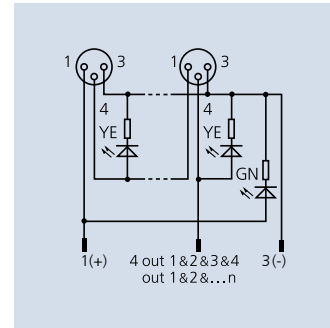
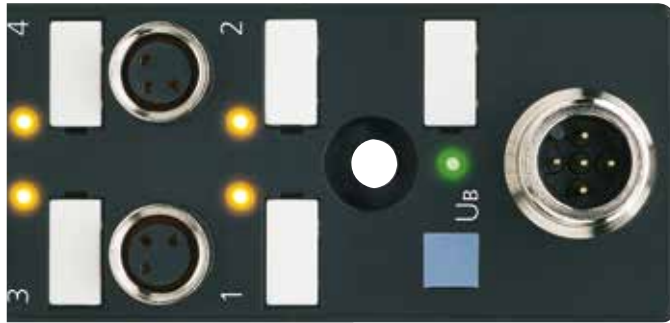




**10**  
Gbit/s

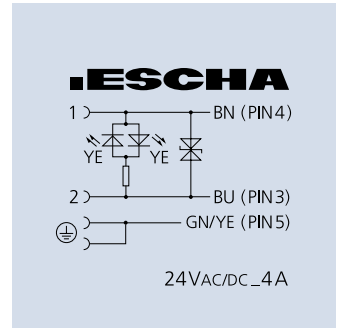
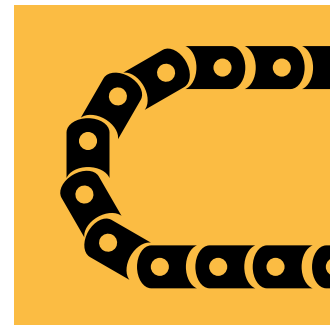


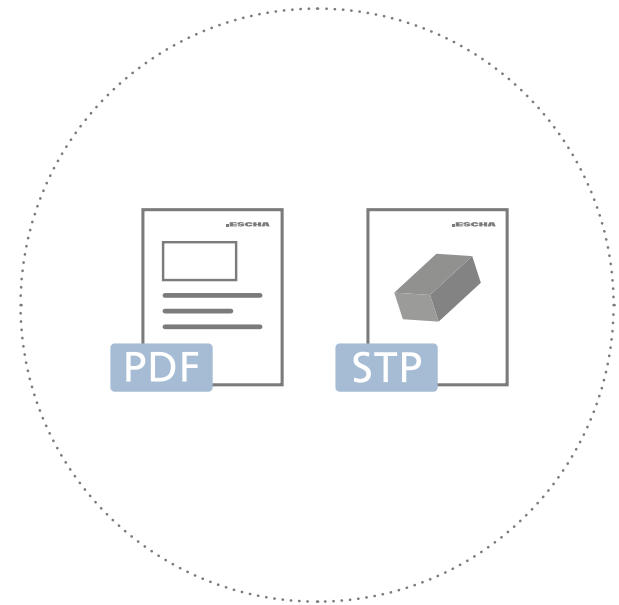
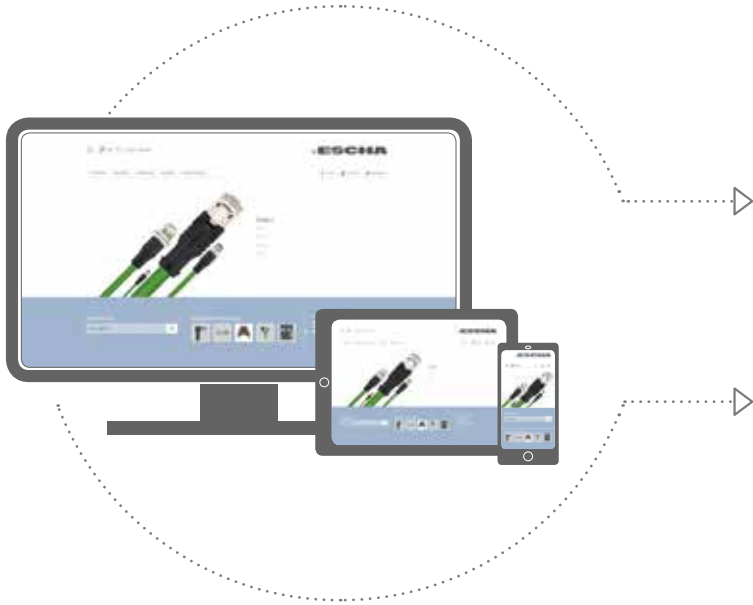
**ESCHA**

1) — 1  
2) — 2  
3) — 3  
PE) — PE  
1) — C1  
2) — C2  
3) — C3  
PE) — CPE

630VAC (UL: 600VAC)\_12A

**CAUTION** not for interrupting current!  
Ne pas utiliser pour couper le courant!





# E d i t o r i a l

## ESCHA cmpct: The all new catalog experience!

More products, more information, fewer pages and all that in multimedia. That's impossible? It's possible! Have a look at our new catalog – printed, on your PC or tablet.

With 'ESCHA cmpct' we are introducing an ESCHA catalog in contemporary style. You do not only recognize this through the remarkable and reader friendly landscape format adapted to modern viewing habits but also through the new color coding system, which navigates you through the world of our products. First and foremost, you recognize it, because we did away with antiquated traditions and reduced it to the essential.

In return, we basically overhauled our web-based product search and added new features to it. We made the search process even more comfortable and offer you various opportunities to enter the product search. You can download step-files for each item and the newly-shaped data sheets are available in four languages.

Due to the landscape format we can offer you a cross-channel catalog in a single design. This includes, for the first time, an interactive ePaper: All you have to do is click on the item number of the selected product and download the relevant data sheet.

Convince yourself of the new possibilities and let us have your feedback.

Your ESCHA catalog team

[cmpct@escha.net](mailto:cmpct@escha.net)



Our Catalog Team from left to right: Thomas Korb (Product Management), Harald Stief (Graphics Design), Jana Eilhardt (Concept & Layout), Jan-Patrick Förster (Product Database), Matthias Gärtner (Template Programming / eggheads GmbH)

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Nearly actual size




## base line

Technical data	M12x1
Insulation resistance	$\geq 10^8 \Omega$
Resistance	$\leq 5 m\Omega$
Ambient temperature product	-30°C...+90°C
Contact material	Metal, CuSn, gold-plated
Contact-carrier material	Plastic, TPU, BK
Grip body material	Plastic, TPU, BK
Coupling nut material	Metal, CuZn, nickel-plated
Sealing (female) material	FPM/FKM
Standards	IEC 61076-2-101
Degree of protection (mounted)	IP65, IP67, IP68
Mechanical life-cycle	>100 mating cycles
Degree of pollution	3



M12x1-connectors for everybody who buys 'standard' – no more, no less. base line connectors stand for: design to cost, focus on essential product variants and optimized production processes. They are available as 3-, 4-, and 5-pin version as well as with four different cable qualities (PVC or PUR). Due to UL-approved materials and cable qualities they can be used on the North American market. IP65, IP67 and IP68 requirements are fulfilled.

		Body				Cable			Item description	L = cable length*		
		Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
	Extension cable female, M12x1, straight	3	250V	4A		PUR	BK	•	BL-WAK3-L/S370	8047935	8047871	8048461
				4A		PUR	GY	•	BL-WAK3-L/S370GY	8058625	8058626	8058627
				4A		PVC	GY		BL-WAK3-L/P00	8048554	8047903	8048483
				4A		PVC	GY	•	BL-WAK3-L/P01	8050937	8050938	8050939
		4	250V	4A		PUR	BK	•	BL-WAK4-L/S370	8048462	8047872	8048463
				4A		PUR	GY	•	BL-WAK4-L/S370GY	8058718	8058719	8058720
				4A		PVC	GY		BL-WAK4-L/P00	8048555	8047904	8048484
				4A		PVC	GY	•	BL-WAK4-L/P01	8050941	8050940	8050942
		5	60V	4A		PUR	BK	•	BL-WAK4.5-L/S370	8048467	8047874	8048468
				4A		PVC	GY		BL-WAK4.5-L/P00	8048742	8047906	8048743
				4A		PVC	GY	•	BL-WAK4.5-L/P01	8050946	8050947	8050948
			Extension cable female, M12x1, angled	3	250V	4A		PUR	BK	•	BL-WWAK3-L/S370	8050702
4A						PUR	GY	•	BL-WWAK3-L/S370GY	8058739	8058740	8058741
4A						PVC	GY		BL-WWAK3-L/P00	8050793	8047908	8050794
4A						PVC	GY	•	BL-WWAK3-L/P01	8050952	8050953	8050954
4	250V			4A		PUR	BK	•	BL-WWAK4-L/S370	8050704	8047877	8050537
				4A		PUR	GY	•	BL-WWAK4-L/S370GY	8058742	8058743	8058744
				4A		PVC	GY		BL-WWAK4-L/P00	8050298	8047909	8050536
				4A		PVC	GY	•	BL-WWAK4-L/P01	8050955	8050956	8050957
5	60V			4A		PUR	BK	•	BL-WWAK4.5-L/S370	8050709	8047879	8050710
				4A		PVC	GY		BL-WWAK4.5-L/P00	8050799	8047911	8050803
				4A		PVC	GY	•	BL-WWAK4.5-L/P01	8050961	8050962	8050963
	Extension cable male, M12x1, straight			3	250V	4A		PUR	BK	•	BL-WAS3-L/S370	8048464
		4A				PUR	GY	•	BL-WAS3-L/S370GY	8058745	8058785	8058786
		4A				PVC	GY		BL-WAS3-L/P00	8050815	8047913	8050818
		4A				PVC	GY	•	BL-WAS3-L/P01	8050931	8050932	8050933
		4	250V	4A		PUR	BK	•	BL-WAS4-L/S370	8048173	8047882	8048466
				4A		PUR	GY	•	BL-WAS4-L/S370GY	8058748	8058749	8058750
				4A		PVC	GY		BL-WAS4-L/P00	8050821	8047914	8050823
				4A		PVC	GY	•	BL-WAS4-L/P01	8050934	8050935	8050936
		5	60V	4A		PUR	BK	•	BL-WAS4.5-L/S370	8048469	8047884	8048470
				4A		PVC	GY		BL-WAS4.5-L/P00	8050311	8047916	8050831
				4A		PVC	GY	•	BL-WAS4.5-L/P01	8050970	8050971	8050972

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

	Body				Cable			Item description	L = cable length*		
	Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
 <p>Extension cable male, M12x1, angled</p>	3	250V	4A		PUR	BK	•	BL-WWAS3-L/S370	8050717	8047886	8050718
			4A		PUR	GY	•	BL-WWAS3-L/S370GY	8058751	8058752	8058753
			4A		PVC	GY		BL-WWAS3-L/P00	8050837	8047918	8050839
			4A		PVC	GY	•	BL-WWAS3-L/P01	8050976	8050977	8050978
	4	250V	4A		PUR	BK	•	BL-WWAS4-L/S370	8050719	8047887	8050720
			4A		PUR	GY	•	BL-WWAS4-L/S370GY	8058754	8058755	8058756
			4A		PVC	GY		BL-WWAS4-L/P00	8050297	8047919	8050840
			4A		PVC	GY	•	BL-WWAS4-L/P01	8050979	8050980	8050981
	5	60V	4A		PUR	BK	•	BL-WWAS4.5-L/S370	8050723	8047889	8050724
			4A		PVC	GY		BL-WWAS4.5-L/P00	8050864	8047921	8050867
			4A		PVC	GY	•	BL-WWAS4.5-L/P01	8050985	8050986	8050987
	 <p>Connection cable female, M12x1, straight</p>	3	250V	4A		PUR	BK	•	BL-WAK3-L-BL-WAS3/S370	8052002	8047937
4A					PUR	GY	•	BL-WAK3-L-BL-WAS3/S370GY	8058721	8058722	8058723
4A					PVC	GY		BL-WAK3-L-BL-WAS3/P00	8052016	8050870	8047923
4A					PVC	GY	•	BL-WAK3-L-BL-WAS3/P01	8052030	8050992	8050993
4		250V	4A		PUR	BK	•	BL-WAK4-L-BL-WAS4/S370	8052003	8050728	8047892
			4A		PUR	GY	•	BL-WAK4-L-BL-WAS4/S370GY	8058757	8058758	8058759
			4A		PVC	GY		BL-WAK4-L-BL-WAS4/P00	8052017	8050871	8047924
			4A		PVC	GY	•	BL-WAK4-L-BL-WAS4/P01	8052031	8050995	8050996
5		60V	4A		PUR	BK	•	BL-WAK4.5-L-BL-WAS4.5/S370	8052005	8050136	8047893
			4A		PVC	GY		BL-WAK4.5-L-BL-WAS4.5/P00	8052018	8048906	8047925
			4A		PVC	GY	•	BL-WAK4.5-L-BL-WAS4.5/P01	8052033	8050998	8050999
 <p>Connection cable female, M12x1, straight</p>		3	250V	4A		PUR	BK	•	BL-WAK3-L-BL-WWAS3/S370	8052009	8050736
	4A				PUR	GY	•	BL-WAK3-L-BL-WWAS3/S370GY	8058760	8058761	8058762
	4A				PVC	GY		BL-WAK3-L-BL-WWAS3/P00	8052022	8050892	8047929
	4A				PVC	GY	•	BL-WAK3-L-BL-WWAS3/P01	8052038	8051010	8051011
	4	250V	4A		PUR	BK	•	BL-WAK4-L-BL-WWAS4/S370	8052010	8050738	8047898
			4A		PUR	GY	•	BL-WAK4-L-BL-WWAS4/S370GY	8058763	8058764	8058765
			4A		PVC	GY		BL-WAK4-L-BL-WWAS4/P00	8052023	8050894	8047930
			4A		PVC	GY	•	BL-WAK4-L-BL-WWAS4/P01	8052039	8051013	8051014
	5	60V	4A		PUR	BK	•	BL-WAK4.5-L-BL-WWAS4.5/S370	8052011	8050740	8047899
			4A		PVC	GY		BL-WAK4.5-L-BL-WWAS4.5/P00	8052024	8050896	8047931
			4A		PVC	GY	•	BL-WAK4.5-L-BL-WWAS4.5/P01	8052040	8051016	8051017

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

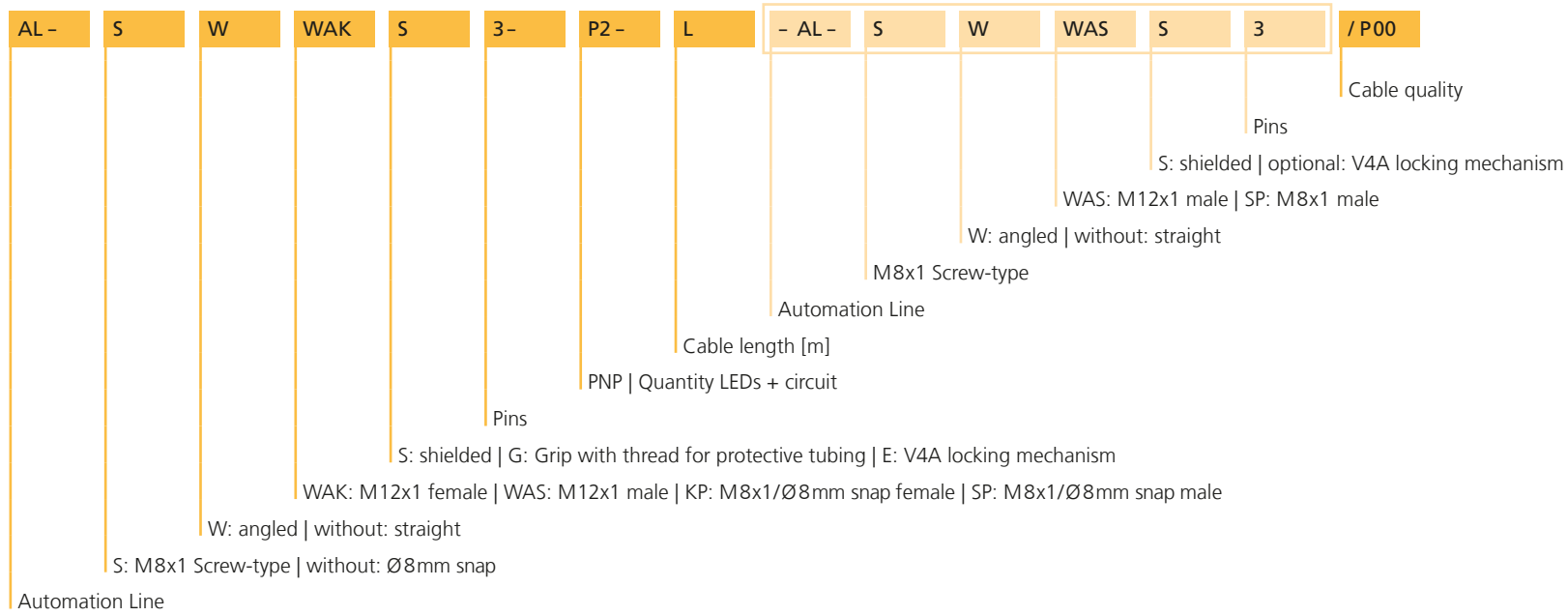
		Body				Cable				L = cable length*		
		Pins	U[max]	I[max]	LED	Material	Color	UL	Item description	2m / 1m	5m / 2m	10m / 5m
	Connection cable female, M12x1, angled male, M12x1, straight	3	250V	4A		PUR	BK	•	BL-WWAK3-L-BL-WAS3/S370	8052012	8050742	8047900
				4A		PUR	GY	•	BL-WWAK3-L-BL-WAS3/S370GY	8058766	8058813	8058814
				4A		PVC	GY		BL-WWAK3-L-BL-WAS3/P00	8052025	8047957	8047932
				4A		PVC	GY	•	BL-WWAK3-L-BL-WAS3/P01	8052041	8051019	8051020
		4	250V	4A		PUR	BK	•	BL-WWAK4-L-BL-WAS4/S370	8052013	8050744	8047901
				4A		PUR	GY	•	BL-WWAK4-L-BL-WAS4/S370GY	8058767	8058768	8058769
				4A		PVC	GY		BL-WWAK4-L-BL-WAS4/P00	8052026	8050903	8047933
				4A		PVC	GY	•	BL-WWAK4-L-BL-WAS4/P01	8052042	8051022	8051023
		5	60V	4A		PUR	BK	•	BL-WWAK4.5-L-BL-WAS4.5/S370	8052014	8050746	8047902
				4A		PVC	GY		BL-WWAK4.5-L-BL-WAS4.5/P00	8052029	8050911	8047934
				4A		PVC	GY	•	BL-WWAK4.5-L-BL-WAS4.5/P01	8052043	8051025	8051026
			Connection cable female, M12x1, angled male, M12x1, angled	3	250V	4A		PUR	BK	•	BL-WWAK3-L-BL-WWAS3/S370	8052006
4A						PUR	GY	•	BL-WWAK3-L-BL-WWAS3/S370GY	8058770	8058771	8058772
4A						PVC	GY		BL-WWAK3-L-BL-WWAS3/P00	8052019	8050886	8047926
4A						PVC	GY	•	BL-WWAK3-L-BL-WWAS3/P01	8052034	8051001	8051002
4	250V			4A		PUR	BK	•	BL-WWAK4-L-BL-WWAS4/S370	8052007	8050732	8047895
				4A		PUR	GY	•	BL-WWAK4-L-BL-WWAS4/S370GY	8058773	8058774	8058775
				4A		PVC	GY		BL-WWAK4-L-BL-WWAS4/P00	8052020	8050888	8047927
				4A		PVC	GY	•	BL-WWAK4-L-BL-WWAS4/P01	8052035	8051004	8051005
5	60V			4A		PUR	BK	•	BL-WWAK4.5-L-BL-WWAS4.5/S370	8052008	8050734	8047896
				4A		PVC	GY		BL-WWAK4.5-L-BL-WWAS4.5/P00	8052021	8050890	8047928
				4A		PVC	GY	•	BL-WWAK4.5-L-BL-WWAS4.5/P01	8052036	8051007	8051008

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.



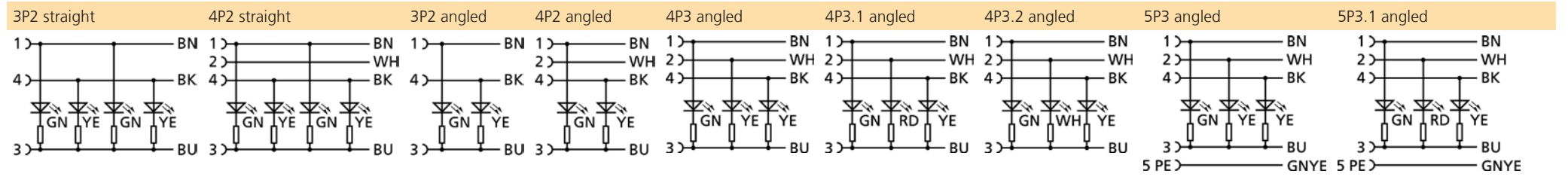


Nomenclature of patched connectors



\*not for P00, M12x1\_12pins, M8x1\_5pins, Ø8mm snap

Cable	Short description
P00   PVC	Flexible PVC/PVC sensor-/actuator control-cable for medium mechanical stresses. Conditioned oil- and chemical resistant.
P01   PVC	Flexible PVC/PVC sensor-/actuator control-cable for medium mechanical stresses. Conditioned oil- and chemical resistant, UL-style.
S370   PUR	Flexible PUR/PP sensor-/actuator control-cable for high mechanical stresses. Halogen-free, flame retardant, medium torsion- and drag-chain capability, oil- and chemical resistant, UL-style.
S370GY   PUR	Flexible PUR/PP sensor-/actuator control-cable for high mechanical stresses. Halogen-free, flame retardant, medium torsion- and drag-chain capability, oil- and chemical resistant, UL-style.
S7400   PUR	Flexible PUR/PP sensor-/actuator control-cable for high mechanical stresses. Halogen-free, flame retardant, high torsion- and drag-chain capability, oil- and chemical resistant, UL-style.







Nearly actual size



## Automation Line

Technical data	M12x1	M8x1	Ø8mm snap
Insulation resistance	≥10 <sup>8</sup> Ω	≥10 <sup>8</sup> Ω	≥10 <sup>8</sup> Ω
Resistance	≤ 5mΩ	≤ 5mΩ	≤ 5mΩ
Ambient temperature product	-30°C...+90°C	-30°C...+90°C	-30°C...+90°C
Contact material	Metal, gold-plated	Metal, gold-plated	Metal, gold-plated
Contact-carrier material	Plastic, TPU	Plastic, TPU	Plastic, TPU
Grip body material	Plastic, TPU	Plastic, TPU	Plastic, TPU
Coupling nut material	Metal, nickel-plated	Metal, nickel-plated	
Sealing (female) material	FPM/FKM	FPM/FKM	FPM/FKM
Standards	IEC 61076-2-101	IEC 61076-2-104	IEC 61076-2-104
Degree of protection (mounted)	IP65, IP67, IP68	IP65, IP67, IP68	IP65, IP67
Mechanical life-cycle	>100 mating cycles	>100 mating cycles	>100 mating cycles
Degree of pollution	3	3/2	3/2


Automation Line combines typical requirements of automation industry in one product: halogen-, PVC-, and silicone-free; drag-chain adapted; weld-field immune; chemicals-, oil-, microbes-, and hydrolysis resistant. Furthermore tight according to IP65, IP67 and IP68 as well as UL-approved. A comprehensive portfolio with: LED-versions; threaded grip for protective tubing; 360°-shielding through patented ESCHA 2SSK-technology. Available with three cable qualities: PVC, PUR, and PURrobotic with higher drag-chain adaption and torsion resistance.

	Body					Cable			Item description	L = cable length*		
	Pins	U[max]	I[max]	LED	Material	Color	UL	2m / 1m		5m / 2m	10m / 5m	
	3	250V	4A		PUR	BK	•	AL-WAK3-L/S370	8043798	8043799	8043800	
			4A		PUR	GY	•	AL-WAK3-L/S370GY	8058853	8058854	8058855	
			4A		PUR	OG	•	AL-WAK3-L/S7400	8058862	8058863	8058864	
			4A		PVC	GY		AL-WAK3-L/P00	8051043	8051044	8051045	
			4A		PVC	GY	•	AL-WAK3-L/P01	8051250	8051251	8051252	
	4	250V	4A		PUR	BK	•	AL-WAK4-L/S370	8043811	8043812	8043813	
			4A		PUR	GY	•	AL-WAK4-L/S370GY	8058856	8058857	8058858	
			4A		PUR	OG	•	AL-WAK4-L/S7400	8058865	8058866	8058867	
			4A		PVC	GY		AL-WAK4-L/P00	8049341	8051055	8051056	
			4A		PVC	GY	•	AL-WAK4-L/P01	8051262	8051263	8051264	
	4+PE	60V	4A		PUR	BK	•	AL-WAK5-L/S370	8045034	8045035	8046043	
			4A		PUR	GY	•	AL-WAK5-L/S370GY	8058859	8058860	8058861	
			4A		PUR	OG	•	AL-WAK5-L/S7400	8058868	8058869	8058870	
			4A		PVC	GY		AL-WAK5-L/P00	8051077	8051078	8051079	
			4A		PVC	GY	•	AL-WAK5-L/P01	8051286	8051287	8051288	
5	60V	4A		PUR	BK	•	AL-WAK4.5-L/S370	8043823	8043824	8043825		
		4A		PVC	GY		AL-WAK4.5-L/P00	8051067	8051068	8051069		
		4A		PVC	GY	•	AL-WAK4.5-L/P01	8051274	8051275	8051276		
8	30V	2A		PUR	BK	•	AL-WAK8-L/S370	8046903	8046904	8046905		
		2A		PVC	GY		AL-WAK8-L/P00	8051089	8051090	8051091		
		2A		PVC	GY	•	AL-WAK8-L/P01	8051298	8051299	8051300		
12	30V	1.5A		PUR	BK	•	AL-WAK12-L/S370	8046918	8046920	8046921		
		1.5A		PVC	GY		AL-WAK12-L/P00	8051101	8051102	8051103		
		1.5A		PVC	GY	•	AL-WAK12-L/P01	8051310	8051311	8051312		
	3	30V	4A	3P2	PUR	BK	•	AL-WAK3P2-L/S370	8044524	8045592	8047386	
			4A	3P2	PUR	GY	•	AL-WAK3P2-L/S370GY	8058922	8058923	8058924	
			4A	3P2	PUR	OG	•	AL-WAK3P2-L/S7400	8058928	8058929	8058930	
			4A	3P2	PVC	GY		AL-WAK3P2-L/P00	8052508	8052509	8052510	
			4A	3P2	PVC	GY	•	AL-WAK3P2-L/P01	8052511	8052512	8052513	
			4A	3P2	PVC	GY	•	AL-WAK3P2-L/P01	8052511	8052512	8052513	
	4	30V	4A	4P2	PUR	BK	•	AL-WAK4P2-L/S370	8048938	8048114	8048116	
			4A	4P2	PUR	GY	•	AL-WAK4P2-L/S370GY	8058925	8058926	8058927	
			4A	4P2	PUR	OG	•	AL-WAK4P2-L/S7400	8058931	8058932	8058933	
			4A	4P2	PVC	GY		AL-WAK4P2-L/P00	8052514	8052515	8052516	
			4A	4P2	PVC	GY	•	AL-WAK4P2-L/P01	8052517	8052518	8052519	
			4A	4P2	PVC	GY	•	AL-WAK4P2-L/P01	8052517	8052518	8052519	




\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

	Body					Cable			Item description	L = cable length*		
	Pins	U[max]	I[max]	LED	Material	Color	UL	2m / 1m		5m / 2m	10m / 5m	
 Extension cable female, M12x1, straight, grip body with thread for protective tubing	4	250V	4A		PUR	BK	•	AL-WAKG4-L/S370	8052820	8052821	8052822	
			4A		PUR	GY	•	AL-WAKG4-L/S370GY	8059086	8059087	8059088	
			4A		PUR	OG	•	AL-WAKG4-L/S7400	8059089	8059090	8059091	
			4A		PVC	GY		AL-WAKG4-L/P00	8052823	8052824	8052825	
			4A		PVC	GY	•	AL-WAKG4-L/P01	8052826	8052827	8052828	
 Extension cable female, M12x1, angled	3	250V	4A		PUR	BK	•	AL-WWAK3-L/S370	8043801	8043802	8043803	
			4A		PUR	GY	•	AL-WWAK3-L/S370GY	8058871	8058872	8058873	
			4A		PUR	OG	•	AL-WWAK3-L/S7400	8058880	8058881	8058882	
			4A		PVC	GY		AL-WWAK3-L/P00	8051046	8051047	8051048	
			4A		PVC	GY	•	AL-WWAK3-L/P01	8051253	8051254	8051255	
	4	250V	4A		PUR	BK	•	AL-WWAK4-L/S370	8043814	8043815	8043816	
			4A		PUR	GY	•	AL-WWAK4-L/S370GY	8058874	8058875	8058876	
			4A		PUR	OG	•	AL-WWAK4-L/S7400	8058883	8058884	8058885	
			4A		PVC	GY		AL-WWAK4-L/P00	8049342	8049343	8051057	
			4A		PVC	GY	•	AL-WWAK4-L/P01	8051265	8051266	8051267	
	4+PE	60V	4A		PUR	BK	•	AL-WWAK5-L/S370	8046021	8046022	8046023	
			4A		PUR	GY	•	AL-WWAK5-L/S370GY	8058877	8058878	8058879	
			4A		PUR	OG	•	AL-WWAK5-L/S7400	8058886	8058887	8058888	
			4A		PVC	GY		AL-WWAK5-L/P00	8051080	8051081	8051082	
			4A		PVC	GY	•	AL-WWAK5-L/P01	8051289	8051290	8051291	
	5	60V	4A		PUR	BK	•	AL-WWAK4.5-L/S370	8043826	8043827	8043828	
			4A		PVC	GY		AL-WWAK4.5-L/P00	8049344	8051070	8051071	
			4A		PVC	GY	•	AL-WWAK4.5-L/P01	8051277	8051278	8051279	
	8	30V	2A		PUR	BK	•	AL-WWAK8-L/S370	8046906	8046907	8046908	
			2A		PVC	GY		AL-WWAK8-L/P00	8051092	8051093	8051094	
2A				PVC	GY	•	AL-WWAK8-L/P01	8051301	8051302	8051303		
12	30V	1.5A		PUR	BK	•	AL-WWAK12-L/S370	8046923	8046924	8046925		
		1.5A		PVC	GY		AL-WWAK12-L/P00	8051104	8051105	8051106		
		1.5A		PVC	GY	•	AL-WWAK12-L/P01	8051313	8051314	8051315		



\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

	Body				Cable			UL	Item description	L = cable length*		
	Pins	U[max]	I[max]	LED	Material	Color	2m / 1m			5m / 2m	10m / 5m	
 Extension cable female, M12x1, angled, with LED	3	30V	4A	3P2	PUR	BK	•	AL-WWAK3P2-L/S370	8044219	8045217	8044523	
			4A	3P2	PUR	GY	•	AL-WWAK3P2-L/S370GY	8059930	8059931	8059932	
			4A	3P2	PUR	OG	•	AL-WWAK3P2-L/S7400	8058934	8058935	8058936	
			4A	3P2	PVC	GY		AL-WWAK3P2-L/P00	8051121	8051119	8051120	
			4A	3P2	PVC	GY	•	AL-WWAK3P2-L/P01	8051328	8051329	8051330	
	4	30V	4A	4P2	PUR	BK	•	AL-WWAK4P2-L/S370	8045237	8045238	8045239	
			4A	4P2	PUR	GY	•	AL-WWAK4P2-L/S370GY	8059933	8059934	8059935	
			4A	4P2	PUR	OG	•	AL-WWAK4P2-L/S7400	8058937	8058938	8058939	
			4A	4P2	PVC	GY		AL-WWAK4P2-L/P00	8051122	8051123	8051124	
			4A	4P2	PVC	GY	•	AL-WWAK4P2-L/P01	8051331	8051332	8051333	
			4A	4P3	PUR	BK	•	AL-WWAK4P3-L/S370	8044220	8044565	8044566	
			4A	4P3	PUR	GY	•	AL-WWAK4P3-L/S370GY	8059936	8059937	8059938	
			4A	4P3	PUR	OG	•	AL-WWAK4P3-L/S7400	8058940	8058941	8058942	
			4A	4P3	PVC	GY		AL-WWAK4P3-L/P00	8051125	8051126	8051127	
			4A	4P3	PVC	GY	•	AL-WWAK4P3-L/P01	8051334	8051335	8051336	
			4A	4P3.1	PUR	BK	•	AL-WWAK4P3.1-L/S370	8045911	8045912	8045913	
			4A	4P3.1	PUR	GY	•	AL-WWAK4P3.1-L/S370GY	8059939	8059940	8059941	
			4A	4P3.1	PUR	OG	•	AL-WWAK4P3.1-L/S7400	8058943	8058944	8058945	
			4A	4P3.1	PVC	GY		AL-WWAK4P3.1-L/P00	8051128	8051129	8051130	
			4A	4P3.1	PVC	GY	•	AL-WWAK4P3.1-L/P01	8051337	8051338	8051339	
			4A	4P3.2	PUR	BK	•	AL-WWAK4P3.2-L/S370	8045914	8045915	8045916	
			4A	4P3.2	PUR	GY	•	AL-WWAK4P3.2-L/S370GY	8059942	8059943	8059944	
			4A	4P3.2	PUR	OG	•	AL-WWAK4P3.2-L/S7400	8058946	8058947	8058948	
			4A	4P3.2	PVC	GY		AL-WWAK4P3.2-L/P00	8051131	8051132	8051133	
			4A	4P3.2	PVC	GY	•	AL-WWAK4P3.2-L/P01	8051340	8051341	8051342	
4+PE	30V	4A	5P3	PUR	BK	•	AL-WWAK5P3-L/S370	8044221	8045218	8045219		
		4A	5P3	PUR	GY	•	AL-WWAK5P3-L/S370GY	8059945	8059946	8059947		
		4A	5P3	PUR	OG	•	AL-WWAK5P3-L/S7400	8058949	8058950	8058951		
		4A	5P3	PVC	GY		AL-WWAK5P3-L/P00	8051134	8051135	8051136		
		4A	5P3	PVC	GY	•	AL-WWAK5P3-L/P01	8051343	8051344	8051345		
		4A	5P3.1	PUR	BK	•	AL-WWAK5P3.1-L/S370	8045917	8045918	8045919		
		4A	5P3.1	PUR	GY	•	AL-WWAK5P3.1-L/S370GY	8059948	8059949	8059950		
		4A	5P3.1	PUR	OG	•	AL-WWAK5P3.1-L/S7400	8058952	8058953	8058954		
		4A	5P3.1	PVC	GY		AL-WWAK5P3.1-L/P00	8051137	8051138	8051139		
4A	5P3.1	PVC	GY	•	AL-WWAK5P3.1-L/P01	8051346	8051347	8051348				

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.


	Body					Cable			Item description	L = cable length*		
	Pins	U[max]	I[max]	LED	Material	Color	UL	2m / 1m		5m / 2m	10m / 5m	
 <p>Extension cable female, M12x1, angled, grip body with thread for protective tubing</p>	4	250V	4A		PUR	BK	•	AL-WWAKG4-L/S370	8052829	8052830	8052831	
			4A		PUR	GY	•	AL-WWAKG4-L/S370GY	8059092	8059093	8059094	
			4A		PUR	OG	•	AL-WWAKG4-L/S7400	8059095	8059096	8059097	
			4A		PVC	GY		AL-WWAKG4-L/P00	8052832	8052833	8052834	
			4A		PVC	GY	•	AL-WWAKG4-L/P01	8052835	8052836	8052837	
 <p>Extension cable male, M12x1, straight</p>	3	250V	4A		PUR	BK	•	AL-WAS3-L/S370	8043804	8043805	8043806	
			4A		PUR	GY	•	AL-WAS3-L/S370GY	8058955	8058956	8058957	
			4A		PUR	OG	•	AL-WAS3-L/S7400	8058964	8058965	8058966	
			4A		PVC	GY		AL-WAS3-L/P00	8051049	8051050	8051051	
			4A		PVC	GY	•	AL-WAS3-L/P01	8051256	8051257	8051258	
	4	250V	4A		PUR	BK	•	AL-WAS4-L/S370	8043817	8043818	8043819	
			4A		PUR	GY	•	AL-WAS4-L/S370GY	8058958	8058959	8058960	
			4A		PUR	OG	•	AL-WAS4-L/S7400	8058967	8058968	8058969	
			4A		PVC	GY		AL-WAS4-L/P00	8049339	8051058	8051059	
			4A		PVC	GY	•	AL-WAS4-L/P01	8051268	8051269	8051270	
	4+PE	60V	4A		PUR	BK	•	AL-WAS5-L/S370	8046024	8046026	8046027	
			4A		PUR	GY	•	AL-WAS5-L/S370GY	8058961	8058962	8058963	
			4A		PUR	OG	•	AL-WAS5-L/S7400	8058970	8058971	8058972	
			4A		PVC	GY		AL-WAS5-L/P00	8051083	8051084	8051085	
			4A		PVC	GY	•	AL-WAS5-L/P01	8051292	8051293	8051294	
	5	60V	4A		PUR	BK	•	AL-WAS4.5-L/S370	8043829	8043830	8043831	
			4A		PVC	GY		AL-WAS4.5-L/P00	8051072	8051073	8049345	
			4A		PVC	GY	•	AL-WAS4.5-L/P01	8051280	8051281	8051282	
	8	30V	2A		PUR	BK	•	AL-WAS8-L/S370	8046909	8046910	8046911	
			2A		PVC	GY		AL-WAS8-L/P00	8051095	8051096	8051097	
2A				PVC	GY	•	AL-WAS8-L/P01	8051304	8051305	8051306		
12	30V	1.5A		PUR	BK	•	AL-WAS12-L/S370	8046926	8046927	8046928		
		1.5A		PVC	GY		AL-WAS12-L/P00	8051107	8051108	8051109		
		1.5A		PVC	GY	•	AL-WAS12-L/P01	8051316	8051317	8051318		
 <p>Extension cable male, M12x1, straight, grip body with thread for protective tubing</p>	4	250V	4A		PUR	BK	•	AL-WASG4-L/S370	8052838	8052839	8052840	
			4A		PUR	GY	•	AL-WASG4-L/S370GY	8059098	8059099	8059100	
			4A		PUR	OG	•	AL-WASG4-L/S7400	8059101	8059102	8059103	
			4A		PVC	GY		AL-WASG4-L/P00	8052841	8052842	8052843	
			4A		PVC	GY	•	AL-WASG4-L/P01	8052844	8052845	8052846	

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.





	Body				Cable			Item description	L = cable length*		
	Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
 <p>Extension cable male, M12x1, angled</p>	3	250V	4A		PUR	BK	•	AL-WWAS3-L/S370	8043808	8043809	8043810
			4A		PUR	GY	•	AL-WWAS3-L/S370GY	8058973	8058974	8058975
			4A		PUR	OG	•	AL-WWAS3-L/S7400	8058982	8058983	8058984
			4A		PVC	GY		AL-WWAS3-L/P00	8051052	8051053	8051054
			4A		PVC	GY	•	AL-WWAS3-L/P01	8051259	8051260	8051261
	4	250V	4A		PUR	BK	•	AL-WWAS4-L/S370	8043820	8043821	8043822
			4A		PUR	GY	•	AL-WWAS4-L/S370GY	8058976	8058977	8058978
			4A		PUR	OG	•	AL-WWAS4-L/S7400	8058985	8058986	8058987
			4A		PVC	GY		AL-WWAS4-L/P00	8051869	8051870	8051871
			4A		PVC	GY	•	AL-WWAS4-L/P01	8051271	8051272	8051273
	4+PE	60V	4A		PUR	BK	•	AL-WWAS5-L/S370	8046028	8046029	8046030
			4A		PUR	GY	•	AL-WWAS5-L/S370GY	8058979	8058980	8058981
			4A		PUR	OG	•	AL-WWAS5-L/S7400	8058988	8058989	8058990
			4A		PVC	GY		AL-WWAS5-L/P00	8051086	8051087	8051088
			4A		PVC	GY	•	AL-WWAS5-L/P01	8051295	8051296	8051297
5	60V	4A		PUR	BK	•	AL-WWAS4.5-L/S370	8043832	8043833	8043834	
		4A		PVC	GY		AL-WWAS4.5-L/P00	8051074	8051075	8051076	
		4A		PVC	GY	•	AL-WWAS4.5-L/P01	8051283	8051284	8051285	
8	30V	2A		PUR	BK	•	AL-WWAS8-L/S370	8046912	8046913	8046914	
		2A		PVC	GY		AL-WWAS8-L/P00	8051098	8051099	8051100	
		2A		PVC	GY	•	AL-WWAS8-L/P01	8051307	8051308	8051309	
12	30V	1.5A		PUR	BK	•	AL-WWAS12-L/S370	8046929	8046930	8046931	
		1.5A		PVC	GY		AL-WWAS12-L/P00	8051110	8051111	8051112	
		1.5A		PVC	GY	•	AL-WWAS12-L/P01	8051319	8051321	8051320	
 <p>Extension cable male, M12x1, angled, grip body with thread for protective tubing</p>	4	250V	4A		PUR	BK	•	AL-WWASG4-L/S370	8052847	8052848	8052849
			4A		PUR	GY	•	AL-WWASG4-L/S370GY	8059104	8059105	8059106
			4A		PUR	OG	•	AL-WWASG4-L/S7400	8059107	8059108	8059109
			4A		PVC	GY		AL-WWASG4-L/P00	8052850	8052851	8052852
			4A		PVC	GY	•	AL-WWASG4-L/P01	8052853	8052854	8052855

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.




	Body				Cable			Item description	L = cable length*		
	Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
 <p>Connection cable female, M12x1, straight male, M12x1, straight</p>	3	250V	4A		PUR	BK	•	AL-WAK3-L-AL-WAS3/S370	8044858	8044029	8044030
			4A		PUR	GY	•	AL-WAK3-L-AL-WAS3/S370GY	8058889	8058890	8058891
			4A		PUR	OG	•	AL-WAK3-L-AL-WAS3/S7400	8058921	8058898	8058899
			4A		PVC	GY		AL-WAK3-L-AL-WAS3/P00	8051459	8051460	8051461
			4A		PVC	GY	•	AL-WAK3-L-AL-WAS3/P01	8051667	8051668	8051669
	4	250V	4A		PUR	BK	•	AL-WAK4-L-AL-WAS4/S370	8044813	8044041	8044042
			4A		PUR	GY	•	AL-WAK4-L-AL-WAS4/S370GY	8058892	8058893	8058894
			4A		PUR	OG	•	AL-WAK4-L-AL-WAS4/S7400	8057296	8057322	8057324
			4A		PVC	GY		AL-WAK4-L-AL-WAS4/P00	8051471	8051472	8051473
			4A		PVC	GY	•	AL-WAK4-L-AL-WAS4/P01	8051679	8051680	8051681
	4+PE	60V	4A		PUR	BK	•	AL-WAK5-L-AL-WAS5/S370	8046647	8046031	8046032
			4A		PUR	GY	•	AL-WAK5-L-AL-WAS5/S370GY	8058895	8058896	8058897
			4A		PUR	OG	•	AL-WAK5-L-AL-WAS5/S7400	8058900	8058901	8058902
			4A		PVC	GY		AL-WAK5-L-AL-WAS5/P00	8051495	8051496	8051497
			4A		PVC	GY	•	AL-WAK5-L-AL-WAS5/P01	8051703	8051704	8051705
5	60V	4A		PUR	BK	•	AL-WAK4.5-L-AL-WAS4.5/S370	8050226	8044053	8044054	
		4A		PVC	GY		AL-WAK4.5-L-AL-WAS4.5/P00	8051483	8051484	8051485	
		4A		PVC	GY	•	AL-WAK4.5-L-AL-WAS4.5/P01	8051691	8051692	8051693	
8	30V	2A		PUR	BK	•	AL-WAK8-L-AL-WAS8/S370	8049781	8046932	8046933	
		2A		PVC	GY		AL-WAK8-L-AL-WAS8/P00	8051507	8051508	8051509	
		2A		PVC	GY	•	AL-WAK8-L-AL-WAS8/P01	8051715	8051716	8051717	
12	30V	1.5A		PUR	BK	•	AL-WAK12-L-AL-WAS12/S370	8051872	8046944	8046945	
		1.5A		PVC	GY		AL-WAK12-L-AL-WAS12/P00	8051519	8051520	8051521	
		1.5A		PVC	GY	•	AL-WAK12-L-AL-WAS12/P01	8051727	8051728	8051729	


\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

	Body					Cable			Item description	L = cable length*		
	Pins	U[max]	I[max]	LED	Material	Color	UL	2m / 1m		5m / 2m	10m / 5m	
 Connection cable female, M12x1, straight  Connection cable male, M12x1, angled	3	250V	4A		PUR	BK	•	AL-WAK3-L-AL-WWAS3/S370	8051873	8044035	8044036	
			4A		PUR	GY	•	AL-WAK3-L-AL-WWAS3/S370GY	8058903	8058904	8058905	
			4A		PUR	OG	•	AL-WAK3-L-AL-WWAS3/S7400	8058912	8058913	8058914	
			4A		PVC	GY		AL-WAK3-L-AL-WWAS3/P00	8051465	8051466	8051467	
			4A		PVC	GY	•	AL-WAK3-L-AL-WWAS3/P01	8051673	8051674	8051675	
	4	250V	4A		PUR	BK	•	AL-WAK4-L-AL-WWAS4/S370	8051874	8044047	8044048	
			4A		PUR	GY	•	AL-WAK4-L-AL-WWAS4/S370GY	8058906	8058907	8058908	
			4A		PUR	OG	•	AL-WAK4-L-AL-WWAS4/S7400	8058915	8058916	8058917	
			4A		PVC	GY		AL-WAK4-L-AL-WWAS4/P00	8051477	8051478	8051479	
			4A		PVC	GY	•	AL-WAK4-L-AL-WWAS4/P01	8051685	8051686	8051687	
	4+PE	60V	4A		PUR	BK	•	AL-WAK5-L-AL-WWAS5/S370	8046056	8046037	8046038	
			4A		PUR	GY	•	AL-WAK5-L-AL-WWAS5/S370GY	8058909	8058910	8058911	
			4A		PUR	OG	•	AL-WAK5-L-AL-WWAS5/S7400	8058918	8058919	8058920	
			4A		PVC	GY		AL-WAK5-L-AL-WWAS5/P00	8051501	8051502	8051503	
			4A		PVC	GY	•	AL-WAK5-L-AL-WWAS5/P01	8051709	8051710	8051711	
5	60V	4A		PUR	BK	•	AL-WAK4.5-L-AL-WWAS4.5/S370	8051875	8044059	8044060		
		4A		PVC	GY		AL-WAK4.5-L-AL-WWAS4.5/P00	8051489	8051490	8051491		
		4A		PVC	GY	•	AL-WAK4.5-L-AL-WWAS4.5/P01	8051697	8051698	8051699		
8	30V	2A		PUR	BK	•	AL-WAK8-L-AL-WWAS8/S370	8051876	8046938	8046939		
		2A		PVC	GY		AL-WAK8-L-AL-WWAS8/P00	8051513	8051514	8051515		
		2A		PVC	GY	•	AL-WAK8-L-AL-WWAS8/P01	8051721	8051722	8051723		
12	30V	1.5A		PUR	BK	•	AL-WAK12-L-AL-WWAS12/S370	8051877	8046950	8046951		
		1.5A		PVC	GY		AL-WAK12-L-AL-WWAS12/P00	8051525	8051526	8051527		
		1.5A		PVC	GY	•	AL-WAK12-L-AL-WWAS12/P01	8051733	8051734	8051735		
 Connection cable female, M12x1, straight, with LED  Connection cable male, M12x1, straight	3	250V	4A	3P2	PUR	BK	•	AL-WAK3P2-L-AL-WAS3/S370	8052751	8049895	8049896	
			4A	3P2	PUR	GY	•	AL-WAK3P2-L-AL-WAS3/S370GY	8059034	8059035	8059036	
			4A	3P2	PUR	OG	•	AL-WAK3P2-L-AL-WAS3/S7400	8059040	8059041	8059042	
			4A	3P2	PVC	GY		AL-WAK3P2-L-AL-WAS3/P00	8052745	8052747	8052746	
			4A	3P2	PVC	GY	•	AL-WAK3P2-L-AL-WAS3/P01	8052749	8052748	8052750	
	4	250V	4A	4P2	PUR	BK	•	AL-WAK4P2-L-AL-WAS4/S370	8049946	8052064	8052065	
			4A	4P2	PUR	GY	•	AL-WAK4P2-L-AL-WAS4/S370GY	8059037	8059038	8059039	
			4A	4P2	PUR	OG	•	AL-WAK4P2-L-AL-WAS4/S7400	8059043	8059044	8059045	
			4A	4P2	PVC	GY		AL-WAK4P2-L-AL-WAS4/P00	8052520	8052521	8052522	
			4A	4P2	PVC	GY	•	AL-WAK4P2-L-AL-WAS4/P01	8052523	8052524	8052525	



\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

	Body				Cable			Item description	L = cable length*		
	Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
 <p>Connection cable female, M12x1, angled male, M12x1, straight</p>	3	250V	4A		PUR	BK	•	AL-WWAK3-L-AL-WAS3/S370	8047133	8044038	8044039
			4A		PUR	GY	•	AL-WWAK3-L-AL-WAS3/S370GY	8058998	8058999	8059000
			4A		PUR	OG	•	AL-WWAK3-L-AL-WAS3/S7400	8059007	8059008	8059009
			4A		PVC	GY		AL-WWAK3-L-AL-WAS3/P00	8051468	8051469	8051470
			4A		PVC	GY	•	AL-WWAK3-L-AL-WAS3/P01	8051676	8051677	8051678
	4	250V	4A		PUR	BK	•	AL-WWAK4-L-AL-WAS4/S370	8044664	8044050	8044051
			4A		PUR	GY	•	AL-WWAK4-L-AL-WAS4/S370GY	8059001	8059002	8059003
			4A		PUR	OG	•	AL-WWAK4-L-AL-WAS4/S7400	8059010	8059011	8059012
			4A		PVC	GY		AL-WWAK4-L-AL-WAS4/P00	8051480	8051481	8051482
			4A		PVC	GY	•	AL-WWAK4-L-AL-WAS4/P01	8051688	8051689	8051690
	4+PE	60V	4A		PUR	BK	•	AL-WWAK5-L-AL-WAS5/S370	8046055	8046040	8046041
			4A		PUR	GY	•	AL-WWAK5-L-AL-WAS5/S370GY	8059004	8059005	8059006
			4A		PUR	OG	•	AL-WWAK5-L-AL-WAS5/S7400	8059013	8059014	8059015
			4A		PVC	GY		AL-WWAK5-L-AL-WAS5/P00	8051504	8051505	8051506
			4A		PVC	GY	•	AL-WWAK5-L-AL-WAS5/P01	8051712	8051713	8051714
5	60V	4A		PUR	BK	•	AL-WWAK4.5-L-AL-WAS4.5/S370	8050444	8044062	8044063	
		4A		PVC	GY		AL-WWAK4.5-L-AL-WAS4.5/P00	8051492	8051493	8051494	
		4A		PVC	GY	•	AL-WWAK4.5-L-AL-WAS4.5/P01	8051700	8051701	8051702	
8	30V	2A		PUR	BK	•	AL-WWAK8-L-AL-WAS8/S370	8048889	8046941	8046942	
		2A		PVC	GY		AL-WWAK8-L-AL-WAS8/P00	8051516	8051517	8051518	
		2A		PVC	GY	•	AL-WWAK8-L-AL-WAS8/P01	8051724	8051725	8051726	
12	30V	1.5A		PUR	BK	•	AL-WWAK12-L-AL-WAS12/S370	8051878	8046953	8046954	
		1.5A		PVC	GY		AL-WWAK12-L-AL-WAS12/P00	8051528	8051529	8051530	
		1.5A		PVC	GY	•	AL-WWAK12-L-AL-WAS12/P01	8051736	8051737	8051738	



\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

	Body				Cable			Item description	L = cable length*			
	Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m	
 <p>Connection cable female, M12x1, angled male, M12x1, angled</p>	3	250V	4A		PUR	BK	•	AL-WWAK3-L-AL-WWAS3/S370	8049108	8044032	8044033	
			4A		PUR	GY	•	AL-WWAK3-L-AL-WWAS3/S370GY	8059016	8059017	8059018	
			4A		PUR	OG	•	AL-WWAK3-L-AL-WWAS3/S7400	8059025	8059026	8059027	
			4A		PVC	GY		AL-WWAK3-L-AL-WWAS3/P00	8051462	8051463	8051464	
			4A		PVC	GY	•	AL-WWAK3-L-AL-WWAS3/P01	8051671	8051670	8051672	
			4	250V	4A		PUR	BK	•	AL-WWAK4-L-AL-WWAS4/S370	8051879	8044044
			4A		PUR	GY	•	AL-WWAK4-L-AL-WWAS4/S370GY	8059019	8059020	8059021	
			4A		PUR	OG	•	AL-WWAK4-L-AL-WWAS4/S7400	8059028	8059029	8059030	
			4A		PVC	GY		AL-WWAK4-L-AL-WWAS4/P00	8051474	8051475	8051476	
			4A		PVC	GY	•	AL-WWAK4-L-AL-WWAS4/P01	8051682	8051683	8051684	
		4+PE	60V	4A		PUR	BK	•	AL-WWAK5-L-AL-WWAS5/S370	8051881	8046034	8046035
				4A		PUR	GY	•	AL-WWAK5-L-AL-WWAS5/S370GY	8059022	8059023	8059024
				4A		PUR	OG	•	AL-WWAK5-L-AL-WWAS5/S7400	8059031	8059032	8059033
				4A		PVC	GY		AL-WWAK5-L-AL-WWAS5/P00	8051498	8051499	8051500
				4A		PVC	GY	•	AL-WWAK5-L-AL-WWAS5/P01	8051706	8051707	8051708
		5	60V	4A		PUR	BK	•	AL-WWAK4.5-L-AL-WWAS4.5/S370	8051880	8044056	8044057
				4A		PVC	GY		AL-WWAK4.5-L-AL-WWAS4.5/P00	8051486	8051487	8051488
				4A		PVC	GY	•	AL-WWAK4.5-L-AL-WWAS4.5/P01	8051694	8051695	8051696
	8	30V	2A		PUR	BK	•	AL-WWAK8-L-AL-WWAS8/S370	8051882	8046935	8046936	
			2A		PVC	GY		AL-WWAK8-L-AL-WWAS8/P00	8051510	8051511	8051512	
			2A		PVC	GY	•	AL-WWAK8-L-AL-WWAS8/P01	8051718	8051719	8051720	
	12	30V	1.5A		PUR	BK	•	AL-WWAK12-L-AL-WWAS12/S370	8051883	8046947	8046948	
			1.5A		PVC	GY		AL-WWAK12-L-AL-WWAS12/P00	8051522	8051523	8051524	
			1.5A		PVC	GY	•	AL-WWAK12-L-AL-WWAS12/P01	8051730	8051731	8051732	



\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

		Body				Cable				L = cable length*				
		Pins	U[max]	I[max]	LED	Material	Color	UL	Item description	2m / 1m	5m / 2m	10m / 5m		
 Connection cable female, M12x1, angled, with LED	 male, M12x1, straight	3	250V	4A	3P2	PUR	BK	•	AL-WWAK3P2-L-AL-WAS3/S370	8048160	8045579	8045503		
				4A	3P2	PUR	GY	•	AL-WWAK3P2-L-AL-WAS3/S370GY	8059046	8059047	8059048		
				4A	3P2	PUR	OG	•	AL-WWAK3P2-L-AL-WAS3/S7400	8059067	8059068	8059069		
				4A	3P2	PVC	GY		AL-WWAK3P2-L-AL-WAS3/P00	8051537	8051538	8051539		
				4A	3P2	PVC	GY	•	AL-WWAK3P2-L-AL-WAS3/P01	8051745	8051746	8051747		
		4	250V	4A	4P2	PUR	BK	•	AL-WWAK4P2-L-AL-WAS4/S370	8043925	8045920	8045921		
				4A	4P2	PUR	GY	•	AL-WWAK4P2-L-AL-WAS4/S370GY	8059049	8059050	8059051		
				4A	4P2	PUR	OG	•	AL-WWAK4P2-L-AL-WAS4/S7400	8059070	8059071	8059072		
				4A	4P2	PVC	GY		AL-WWAK4P2-L-AL-WAS4/P00	8051540	8051541	8051542		
				4A	4P2	PVC	GY	•	AL-WWAK4P2-L-AL-WAS4/P01	8051748	8051749	8051750		
				4A	4P3	PUR	BK	•	AL-WWAK4P3-L-AL-WAS4/S370	8049739	8045923	8045924		
				4A	4P3	PUR	GY	•	AL-WWAK4P3-L-AL-WAS4/S370GY	8059052	8059053	8059054		
				4A	4P3	PUR	OG	•	AL-WWAK4P3-L-AL-WAS4/S7400	8058054	8057297	8057321		
				4A	4P3	PVC	GY		AL-WWAK4P3-L-AL-WAS4/P00	8051543	8051545	8051544		
				4A	4P3	PVC	GY	•	AL-WWAK4P3-L-AL-WAS4/P01	8051751	8051752	8051753		
				4A	4P3.1	PUR	BK	•	AL-WWAK4P3.1-L-AL-WAS4/S370	8051884	8045926	8045927		
				4A	4P3.1	PUR	GY	•	AL-WWAK4P3.1-L-AL-WAS4/S370GY	8059055	8059056	8059057		
				4A	4P3.1	PUR	OG	•	AL-WWAK4P3.1-L-AL-WAS4/S7400	8059073	8059074	8059075		
				4A	4P3.1	PVC	GY		AL-WWAK4P3.1-L-AL-WAS4/P00	8051546	8051547	8051548		
				4A	4P3.1	PVC	GY	•	AL-WWAK4P3.1-L-AL-WAS4/P01	8051754	8051755	8051756		
				4A	4P3.2	PUR	BK	•	AL-WWAK4P3.2-L-AL-WAS4/S370	8048140	8045929	8045930		
				4A	4P3.2	PUR	GY	•	AL-WWAK4P3.2-L-AL-WAS4/S370GY	8059058	8059059	8059060		
				4A	4P3.2	PUR	OG	•	AL-WWAK4P3.2-L-AL-WAS4/S7400	8059076	8059077	8059078		
				4A	4P3.2	PVC	GY		AL-WWAK4P3.2-L-AL-WAS4/P00	8051549	8051550	8051551		
				4A	4P3.2	PVC	GY	•	AL-WWAK4P3.2-L-AL-WAS4/P01	8051757	8051758	8051759		
				4+PE	60V	4A	5P3	PUR	BK	•	AL-WWAK5P3-L-AL-WAS5/S370	8051885	8045581	8045583
						4A	5P3	PUR	GY	•	AL-WWAK5P3-L-AL-WAS5/S370GY	8059061	8059062	8059063
						4A	5P3	PUR	OG	•	AL-WWAK5P3-L-AL-WAS5/S7400	8059079	8059080	8059081
						4A	5P3	PVC	GY		AL-WWAK5P3-L-AL-WAS5/P00	8051552	8051553	8051554
		4A	5P3			PVC	GY	•	AL-WWAK5P3-L-AL-WAS5/P01	8051760	8051761	8051762		
		4A	5P3.1			PUR	BK	•	AL-WWAK5P3.1-L-AL-WAS5/S370	8045017	8045661	8045662		
		4A	5P3.1			PUR	GY	•	AL-WWAK5P3.1-L-AL-WAS5/S370GY	8059064	8059065	8059066		
		4A	5P3.1			PUR	OG	•	AL-WWAK5P3.1-L-AL-WAS5/S7400	8059082	8059083	8059084		
		4A	5P3.1			PVC	GY		AL-WWAK5P3.1-L-AL-WAS5/P00	8051555	8051556	8051557		
		4A	5P3.1			PVC	GY	•	AL-WWAK5P3.1-L-AL-WAS5/P01	8051763	8051764	8051765		



\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

	Pins	U[max]	Body		Cable			Item description	L = cable length*		
			I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
 Extension cable female, M12x1, straight shielded	3	250V	4A		PUR	BK	•	AL-WAKS3-L/S370	8046217	8046218	8046219
					PVC	GY		AL-WAKS3-L/P00	8051164	8051165	8051166
					PVC	GY	•	AL-WAKS3-L/P01	8051374	8051375	8051376
	4	250V	4A		PUR	BK	•	AL-WAKS4-L/S370	8046229	8046230	8046231
					PVC	GY		AL-WAKS4-L/P00	8051176	8051177	8051178
					PVC	GY	•	AL-WAKS4-L/P01	8051386	8051387	8051388
	5	60V	4A		PUR	BK	•	AL-WAKS4.5-L/S370	8045557	8046239	8046240
					PVC	GY		AL-WAKS4.5-L/P00	8051188	8051189	8051190
					PVC	GY	•	AL-WAKS4.5-L/P01	8051398	8051399	8051400
	8	30V	2A		PUR	BK	•	AL-WAKS8-L/S370	8046990	8046991	8046992
					PVC	GY		AL-WAKS8-L/P00	8051200	8051201	8051202
					PVC	GY	•	AL-WAKS8-L/P01	8051410	8051411	8051412
12	30V	1.5A		PUR	BK	•	AL-WAKS12-L/S370	8047001	8047002	8047003	
				PVC	GY		AL-WAKS12-L/P00	8051212	8051213	8051214	
				PVC	GY	•	AL-WAKS12-L/P01	8051422	8051423	8051424	
 Extension cable female, M12x1, angled shielded	3	250V	4A		PUR	BK	•	AL-WWAKS3-L/S370	8046220	8046221	8046222
					PVC	GY		AL-WWAKS3-L/P00	8051167	8051168	8051169
					PVC	GY	•	AL-WWAKS3-L/P01	8051377	8051378	8051379
	4	250V	4A		PUR	BK	•	AL-WWAKS4-L/S370	8046232	8045279	8045280
					PVC	GY		AL-WWAKS4-L/P00	8051179	8051180	8051181
					PVC	GY	•	AL-WWAKS4-L/P01	8051389	8051390	8051391
	5	60V	4A		PUR	BK	•	AL-WWAKS4.5-L/S370	8045558	8046242	8046243
					PVC	GY		AL-WWAKS4.5-L/P00	8051191	8051192	8051193
					PVC	GY	•	AL-WWAKS4.5-L/P01	8051401	8051402	8051403
	8	30V	2A		PUR	BK	•	AL-WWAKS8-L/S370	8046993	8046994	8046995
					PVC	GY		AL-WWAKS8-L/P00	8051203	8051204	8051205
					PVC	GY	•	AL-WWAKS8-L/P01	8051413	8051414	8051415
12	30V	1.5A		PUR	BK	•	AL-WWAKS12-L/S370	8047004	8047005	8047006	
				PVC	GY		AL-WWAKS12-L/P00	8051216	8051217	8051218	
				PVC	GY	•	AL-WWAKS12-L/P01	8051425	8051426	8051427	

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.





	Body				Cable			Item description	L = cable length*		
	Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
 Extension cable male, M12x1, straight shielded	3	250V	4A		PUR	BK	•	AL-WASS3-L/S370	8046223	8046224	8046225
			4A		PVC	GY		AL-WASS3-L/P00	8051170	8051171	8051172
			4A		PVC	GY	•	AL-WASS3-L/P01	8051380	8051381	8051382
	4	250V	4A		PUR	BK	•	AL-WASS4-L/S370	8046233	8046234	8046235
			4A		PVC	GY		AL-WASS4-L/P00	8051182	8051183	8051184
			4A		PVC	GY	•	AL-WASS4-L/P01	8051392	8051393	8051394
	5	60V	4A		PUR	BK	•	AL-WASS4.5-L/S370	8045559	8046244	8046245
			4A		PVC	GY		AL-WASS4.5-L/P00	8051194	8051195	8051196
			4A		PVC	GY	•	AL-WASS4.5-L/P01	8051404	8051405	8051406
	8	30V	2A		PUR	BK	•	AL-WASS8-L/S370	8046807	8046996	8046997
			2A		PVC	GY		AL-WASS8-L/P00	8051206	8051207	8051208
			2A		PVC	GY	•	AL-WASS8-L/P01	8051416	8051417	8051418
12	30V	1.5A		PUR	BK	•	AL-WASS12-L/S370	8047007	8047008	8047009	
		1.5A		PVC	GY		AL-WASS12-L/P00	8051219	8051220	8051221	
		1.5A		PVC	GY	•	AL-WASS12-L/P01	8051428	8051429	8051430	
 Extension cable male, M12x1, angled shielded	3	250V	4A		PUR	BK	•	AL-WWASS3-L/S370	8046226	8046227	8046228
			4A		PVC	GY		AL-WWASS3-L/P00	8051173	8051174	8051175
			4A		PVC	GY	•	AL-WWASS3-L/P01	8051383	8051384	8051385
	4	250V	4A		PUR	BK	•	AL-WWASS4-L/S370	8046236	8046237	8046238
			4A		PVC	GY		AL-WWASS4-L/P00	8051185	8051186	8051187
			4A		PVC	GY	•	AL-WWASS4-L/P01	8051395	8051396	8051397
	5	60V	4A		PUR	BK	•	AL-WWASS4.5-L/S370	8045560	8044617	8044618
			4A		PVC	GY		AL-WWASS4.5-L/P00	8051198	8051197	8051199
			4A		PVC	GY	•	AL-WWASS4.5-L/P01	8051407	8051408	8051409
	8	30V	2A		PUR	BK	•	AL-WWASS8-L/S370	8046998	8046999	8047000
			2A		PVC	GY		AL-WWASS8-L/P00	8051209	8051210	8051211
			2A		PVC	GY	•	AL-WWASS8-L/P01	8051419	8051420	8051421
12	30V	1.5A		PUR	BK	•	AL-WWASS12-L/S370	8047010	8047011	8047012	
		1.5A		PVC	GY		AL-WWASS12-L/P00	8051222	8051223	8051224	
		1.5A		PVC	GY	•	AL-WWASS12-L/P01	8051431	8051432	8051433	

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.




	Body				Cable			Item description	L = cable length*				
	Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m		
 Connection cable female, M12x1, straight	3	250V	4A		PUR	BK	•	AL-WAKS3-L-AL-WASS3/S370	8051886	8046270	8046271		
			4A		PVC	GY		AL-WAKS3-L-AL-WASS3/P00	8051582	8051583	8051584		
			4A		PVC	GY	•	AL-WAKS3-L-AL-WASS3/P01	8051790	8051791	8051792		
			4	250V	4A		PUR	BK	•	AL-WAKS4-L-AL-WASS4/S370	8048241	8046282	8046283
					4A		PVC	GY		AL-WAKS4-L-AL-WASS4/P00	8051594	8051595	8051596
					4A		PVC	GY	•	AL-WAKS4-L-AL-WASS4/P01	8051802	8051803	8051804
	5	60V	4A		PUR	BK	•	AL-WAKS4.5-L-AL-WASS4.5/S370	8047973	8046294	8046295		
			4A		PVC	GY		AL-WAKS4.5-L-AL-WASS4.5/P00	8051606	8051607	8051608		
			4A		PVC	GY	•	AL-WAKS4.5-L-AL-WASS4.5/P01	8051814	8051815	8051816		
	8	30V	2A		PUR	BK	•	AL-WAKS8-L-AL-WASS8/S370	8051887	8046968	8047013		
			2A		PVC	GY		AL-WAKS8-L-AL-WASS8/P00	8051618	8051619	8051620		
			2A		PVC	GY	•	AL-WAKS8-L-AL-WASS8/P01	8051826	8051827	8051828		
12	30V	1.5A		PUR	BK	•	AL-WAKS12-L-AL-WASS12/S370	8051888	8047024	8047025			
		1.5A		PVC	GY		AL-WAKS12-L-AL-WASS12/P00	8051630	8051631	8051632			
		1.5A		PVC	GY	•	AL-WAKS12-L-AL-WASS12/P01	8051838	8051839	8051840			
 Connection cable female, M12x1, straight	3	250V	4A		PUR	BK	•	AL-WAKS3-L-AL-WWASS3/S370	8051889	8046276	8046277		
			4A		PVC	GY		AL-WAKS3-L-AL-WWASS3/P00	8051588	8051589	8051590		
			4A		PVC	GY	•	AL-WAKS3-L-AL-WWASS3/P01	8051796	8051797	8051798		
	4	250V	4A		PUR	BK	•	AL-WAKS4-L-AL-WWASS4/S370	8048802	8046288	8046289		
			4A		PVC	GY		AL-WAKS4-L-AL-WWASS4/P00	8051600	8051601	8051602		
			4A		PVC	GY	•	AL-WAKS4-L-AL-WWASS4/P01	8051808	8051809	8051810		
	5	60V	4A		PUR	BK	•	AL-WAKS4.5-L-AL-WWASS4.5/S370	8051890	8046300	8046301		
			4A		PVC	GY		AL-WAKS4.5-L-AL-WWASS4.5/P00	8051612	8051613	8051614		
			4A		PVC	GY	•	AL-WAKS4.5-L-AL-WWASS4.5/P01	8051820	8051821	8051822		
	8	30V	2A		PUR	BK	•	AL-WAKS8-L-AL-WWASS8/S370	8051891	8047018	8047019		
			2A		PVC	GY		AL-WAKS8-L-AL-WWASS8/P00	8051624	8051625	8051626		
			2A		PVC	GY	•	AL-WAKS8-L-AL-WWASS8/P01	8051832	8051833	8051834		
	12	30V	1.5A		PUR	BK	•	AL-WAKS12-L-AL-WWASS12/S370	8051892	8047030	8047031		
			1.5A		PVC	GY		AL-WAKS12-L-AL-WWASS12/P00	8051636	8051637	8051638		
			1.5A		PVC	GY	•	AL-WAKS12-L-AL-WWASS12/P01	8051844	8051845	8051846		

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.





	Body				Cable			Item description	L = cable length*		
	Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
  Connection cable female, M12x1, angled male, M12x1, straight shielded	3	250V	4A		PUR	BK	•	AL-WWAKS3-L-AL-WASS3/S370	8051904	8046279	8046280
			4A		PVC	GY		AL-WWAKS3-L-AL-WASS3/P00	8051591	8051592	8051593
			4A		PVC	GY	•	AL-WWAKS3-L-AL-WASS3/P01	8051799	8051800	8051801
	4	250V	4A		PUR	BK	•	AL-WWAKS4-L-AL-WASS4/S370	8049426	8046291	8046292
			4A		PVC	GY		AL-WWAKS4-L-AL-WASS4/P00	8051603	8051604	8051605
			4A		PVC	GY	•	AL-WWAKS4-L-AL-WASS4/P01	8051811	8051812	8051813
	5	60V	4A		PUR	BK	•	AL-WWAKS4.5-L-AL-WASS4.5/S370	8051897	8046303	8046304
			4A		PVC	GY		AL-WWAKS4.5-L-AL-WASS4.5/P00	8051615	8051616	8051617
			4A		PVC	GY	•	AL-WWAKS4.5-L-AL-WASS4.5/P01	8051823	8051824	8051825
	8	30V	2A		PUR	BK	•	AL-WWAKS8-L-AL-WASS8/S370	8051898	8047021	8047022
			2A		PVC	GY		AL-WWAKS8-L-AL-WASS8/P00	8051627	8051628	8051629
			2A		PVC	GY	•	AL-WWAKS8-L-AL-WASS8/P01	8051835	8051836	8051837
12	30V	1.5A		PUR	BK	•	AL-WWAKS12-L-AL-WASS12/S370	8051899	8047033	8047034	
		1.5A		PVC	GY		AL-WWAKS12-L-AL-WASS12/P00	8051639	8051640	8051641	
		1.5A		PVC	GY	•	AL-WWAKS12-L-AL-WASS12/P01	8051847	8051848	8051849	
  Connection cable female, M12x1, angled male, M12x1, angled shielded	3	250V	4A		PUR	BK	•	AL-WWAKS3-L-AL-WWASS3/S370	8051900	8046273	8046274
			4A		PVC	GY		AL-WWAKS3-L-AL-WWASS3/P00	8051585	8051586	8051587
			4A		PVC	GY	•	AL-WWAKS3-L-AL-WWASS3/P01	8051793	8051794	8051795
	4	250V	4A		PUR	BK	•	AL-WWAKS4-L-AL-WWASS4/S370	8051901	8046285	8046286
			4A		PVC	GY		AL-WWAKS4-L-AL-WWASS4/P00	8051597	8051598	8051599
			4A		PVC	GY	•	AL-WWAKS4-L-AL-WWASS4/P01	8051805	8051806	8051807
	5	60V	4A		PUR	BK	•	AL-WWAKS4.5-L-AL-WWASS4.5/S370	8051902	8046297	8046298
			4A		PVC	GY		AL-WWAKS4.5-L-AL-WWASS4.5/P00	8051609	8051610	8051611
			4A		PVC	GY	•	AL-WWAKS4.5-L-AL-WWASS4.5/P01	8051817	8051818	8051819
	8	30V	2A		PUR	BK	•	AL-WWAKS8-L-AL-WWASS8/S370	8048908	8047015	8047016
			2A		PVC	GY		AL-WWAKS8-L-AL-WWASS8/P00	8051621	8051622	8051623
			2A		PVC	GY	•	AL-WWAKS8-L-AL-WWASS8/P01	8051829	8051830	8051831
12	30V	1.5A		PUR	BK	•	AL-WWAKS12-L-AL-WWASS12/S370	8051903	8047027	8047028	
		1.5A		PVC	GY		AL-WWAKS12-L-AL-WWASS12/P00	8051633	8051634	8051635	
		1.5A		PVC	GY	•	AL-WWAKS12-L-AL-WWASS12/P01	8051841	8051842	8051843	




\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

		Body				Cable			Item description	L = cable length*				
		Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m		
	Extension cable female, M8x1, straight	3	60V	4A		PUR	BK	•	AL-SKP3-L/S370	8043748	8043749	8043750		
				4A		PUR	GY	•	AL-SKP3-L/S370GY	8059110	8059111	8059112		
				4A		PUR	OG	•	AL-SKP3-L/S7400	8059113	8059114	8059115		
				4A		PVC	GY		AL-SKP3-L/P00	8048639	8048640	8048641		
				4A		PVC	GY	•	AL-SKP3-L/P01	8051226	8051227	8051228		
		4	60V	4A		PUR	BK	•	AL-SKP4-L/S370	8043760	8043761	8043762		
				4A		PUR	GY	•	AL-SKP4-L/S370GY	8067754	8067755	8067756		
				4A		PUR	OG	•	AL-SKP4-L/S7400	8066417	8067456	8067457		
				4A		PVC	GY		AL-SKP4-L/P00	8048645	8048646	8048647		
				4A		PVC	GY	•	AL-SKP4-L/P01	8051238	8051239	8051240		
		5	30V	3A		PUR	BK	•	AL-SKP4.5-L/S370	8051859	8051858	8051860		
				3A		PVC	GY		AL-SKP4.5-L/P00	8047045	8051850	8051851		
			Extension cable female, M8x1, angled	3	60V	4A		PUR	BK	•	AL-SWKP3-L/S370	8043751	8043752	8043753
						4A		PUR	GY	•	AL-SWKP3-L/S370GY	8059116	8059117	8059118
						4A		PUR	OG	•	AL-SWKP3-L/S7400	8059119	8059120	8059121
4A						PVC	GY		AL-SWKP3-L/P00	8048642	8048643	8048644		
4A						PVC	GY	•	AL-SWKP3-L/P01	8051229	8051230	8051231		
4	60V			4A		PUR	BK	•	AL-SWKP4-L/S370	8043763	8043764	8043765		
				4A		PUR	GY	•	AL-SWKP4-L/S370GY	8067770	8067774	8067775		
				4A		PUR	OG	•	AL-SWKP4-L/S7400	8067467	8067468	8067469		
				4A		PVC	GY		AL-SWKP4-L/P00	8048648	8048649	8048650		
				4A		PVC	GY	•	AL-SWKP4-L/P01	8051241	8051242	8051243		
5	30V			3A		PUR	BK	•	AL-SWKP4.5-L/S370	8051861	8051862	8051863		
				3A		PVC	GY		AL-SWKP4.5-L/P00	8047049	8051852	8051853		
	Extension cable female, M8x1, angled, with LED			3	30V	3A	3P2	PUR	BK	•	AL-SWKP3P2-L/S370	8045344	8045419	8045420
						3A	3P2	PUR	GY	•	AL-SWKP3P2-L/S370GY	8059122	8059123	8059124
						3A	3P2	PUR	OG	•	AL-SWKP3P2-L/S7400	8059125	8059126	8059127
		3A	3P2			PVC	GY		AL-SWKP3P2-L/P00	8051113	8051114	8051115		
		3A	3P2			PVC	GY	•	AL-SWKP3P2-L/P01	8051322	8051323	8051324		
		4	30V	3A	4P2	PUR	BK	•	AL-SWKP4P2-L/S370	8045345	8045421	8045422		
				3A	4P2	PUR	GY	•	AL-SWKP4P2-L/S370GY	8067809	8067810	8067811		
				3A	4P2	PUR	OG	•	AL-SWKP4P2-L/S7400	8067532	8067533	8067534		
				3A	4P2	PVC	GY		AL-SWKP4P2-L/P00	8051116	8051117	8051118		
				3A	4P2	PVC	GY	•	AL-SWKP4P2-L/P01	8051325	8051326	8051327		




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	Body				Cable			Item description	L = cable length*		
	Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
 Extension cable male, M8x1, straight	3	60V	4A		PUR	BK	•	AL-SSP3-L/S370	8043754	8043755	8043756
			4A		PUR	GY	•	AL-SSP3-L/S370GY	8059152	8059153	8059154
			4A		PUR	OG	•	AL-SSP3-L/S7400	8059155	8059156	8059157
			4A		PVC	GY		AL-SSP3-L/P00	8051031	8051032	8051033
			4A		PVC	GY	•	AL-SSP3-L/P01	8051232	8051233	8051234
	4	60V	4A		PUR	BK	•	AL-SSP4-L/S370	8043766	8043767	8043768
			4A		PUR	GY	•	AL-SSP4-L/S370GY	8067758	8067760	8067762
			4A		PUR	OG	•	AL-SSP4-L/S7400	8067458	8067460	8067461
			4A		PVC	GY		AL-SSP4-L/P00	8051037	8051038	8051039
			4A		PVC	GY	•	AL-SSP4-L/P01	8051244	8051245	8051246
5	30V	3A		PUR	BK	•	AL-SSP4.5-L/S370	8050052	8050053	8050054	
		3A		PVC	GY		AL-SSP4.5-L/P00	8047066	8050044	8050045	
 Extension cable male, M8x1, angled	3	60V	4A		PUR	BK	•	AL-SWSP3-L/S370	8043757	8043758	8043759
			4A		PUR	GY	•	AL-SWSP3-L/S370GY	8059158	8059159	8059160
			4A		PUR	OG	•	AL-SWSP3-L/S7400	8059161	8059162	8059163
			4A		PVC	GY		AL-SWSP3-L/P00	8051034	8051035	8051036
			4A		PVC	GY	•	AL-SWSP3-L/P01	8051235	8051236	8051237
	4	60V	4A		PUR	BK	•	AL-SWSP4-L/S370	8043769	8043770	8043771
			4A		PUR	GY	•	AL-SWSP4-L/S370GY	8067763	8067764	8067768
			4A		PUR	OG	•	AL-SWSP4-L/S7400	8067462	8067463	8067464
			4A		PVC	GY		AL-SWSP4-L/P00	8051040	8051041	8051042
			4A		PVC	GY	•	AL-SWSP4-L/P01	8051247	8051248	8051249
	5	30V	3A		PUR	BK	•	AL-SWSP4.5-L/S370	8050055	8050056	8050057
			3A		PVC	GY		AL-SWSP4.5-L/P00	8047050	8050046	8050047





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		Body				Cable				L = cable length*		
		Pins	U[max]	I[max]	LED	Material	Color	UL	Item description	2m / 1m	5m / 2m	10m / 5m
	Connection cable female, M8x1, straight	3	60V	4A		PUR	BK	•	AL-SKP3-L-AL-SSP3/S370	8044811	8044002	8044003
				4A		PUR	GY	•	AL-SKP3-L-AL-SSP3/S370GY	8059176	8059177	8059178
				4A		PUR	OG	•	AL-SKP3-L-AL-SSP3/S7400	8059179	8059180	8059181
				4A		PVC	GY		AL-SKP3-L-AL-SSP3/P00	8051434	8051435	8051436
				4A		PVC	GY	•	AL-SKP3-L-AL-SSP3/P01	8051642	8051643	8051644
		4	60V	4A		PUR	BK	•	AL-SKP4-L-AL-SSP4/S370	8045944	8044017	8044018
				4A		PUR	GY	•	AL-SKP4-L-AL-SSP4/S370GY	8067813	8067904	8067909
				4A		PUR	OG	•	AL-SKP4-L-AL-SSP4/S7400	8067535	8067537	8067549
				4A		PVC	GY		AL-SKP4-L-AL-SSP4/P00	8051447	8051448	8051449
				4A		PVC	GY	•	AL-SKP4-L-AL-SSP4/P01	8051655	8051656	8051657
5	30V	3A		PUR	BK	•	AL-SKP4.5-L-AL-SSP4.5/S370	8052755	8052756	8052757		
		3A		PVC	GY		AL-SKP4.5-L-AL-SSP4.5/P00	8052860	8042846	8042848		
 	Connection cable female, M8x1, straight male, M8x1, angled	3	60V	4A		PUR	BK	•	AL-SKP3-L-AL-SWSP3/S370	8051913	8044011	8044012
				4A		PUR	GY	•	AL-SKP3-L-AL-SWSP3/S370GY	8059182	8059183	8059184
				4A		PUR	OG	•	AL-SKP3-L-AL-SWSP3/S7400	8059185	8059186	8059188
				4A		PVC	GY		AL-SKP3-L-AL-SWSP3/P00	8051440	8051441	8051442
				4A		PVC	GY	•	AL-SKP3-L-AL-SWSP3/P01	8051649	8051650	8051651
		4	60V	4A		PUR	BK	•	AL-SKP4-L-AL-SWSP4/S370	8046587	8044023	8044024
				4A		PUR	GY	•	AL-SKP4-L-AL-SWSP4/S370GY	8067914	8067915	8067917
				4A		PUR	OG	•	AL-SKP4-L-AL-SWSP4/S7400	8067559	8067560	8067633
				4A		PVC	GY		AL-SKP4-L-AL-SWSP4/P00	8051453	8051454	8051455
				4A		PVC	GY	•	AL-SKP4-L-AL-SWSP4/P01	8051661	8051662	8051663
5	30V	3A		PUR	BK	•	AL-SKP4.5-L-AL-SWSP4.5/S370	8052764	8052765	8052766		
		3A		PVC	GY		AL-SKP4.5-L-AL-SWSP4.5/P00	8042859	8042860	8042861		





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		Body				Cable			Item description	L = cable length*		
		Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
	Connection cable female, M8x1, angled	3	60V	4A		PUR	BK	•	AL-SWKP3-L-AL-SSP3/S370	8044842	8044014	8044015
				4A		PUR	GY	•	AL-SWKP3-L-AL-SSP3/S370GY	8059189	8059190	8059191
				4A		PUR	OG	•	AL-SWKP3-L-AL-SSP3/S7400	8059192	8059193	8059194
				4A		PVC	GY		AL-SWKP3-L-AL-SSP3/P00	8051444	8051445	8051446
				4A		PVC	GY	•	AL-SWKP3-L-AL-SSP3/P01	8051652	8051653	8051654
		4	60V	4A		PUR	BK	•	AL-SWKP4-L-AL-SSP4/S370	8046576	8044026	8044027
				4A		PUR	GY	•	AL-SWKP4-L-AL-SSP4/S370GY	8067918	8067920	8067967
				4A		PUR	OG	•	AL-SWKP4-L-AL-SSP4/S7400	8067634	8067641	8067648
				4A		PVC	GY		AL-SWKP4-L-AL-SSP4/P00	8051456	8051457	8051458
				4A		PVC	GY	•	AL-SWKP4-L-AL-SSP4/P01	8051664	8051665	8051666
5	30V	3A		PUR	BK	•	AL-SWKP4.5-L-AL-SSP4.5/S370	8052761	8052762	8052763		
		3A		PVC	GY		AL-SWKP4.5-L-AL-SSP4.5/P00	8042855	8050039	8042857		
	Connection cable female, M8x1, angled	3	60V	4A		PUR	BK	•	AL-SWKP3-L-AL-SWSP3/S370	8046572	8044008	8044009
				4A		PUR	GY	•	AL-SWKP3-L-AL-SWSP3/S370GY	8059195	8059196	8059197
				4A		PUR	OG	•	AL-SWKP3-L-AL-SWSP3/S7400	8059198	8059199	8059200
				4A		PVC	GY		AL-SWKP3-L-AL-SWSP3/P00	8051437	8051438	8051439
				4A		PVC	GY	•	AL-SWKP3-L-AL-SWSP3/P01	8051646	8051647	8051648
		4	60V	4A		PUR	BK	•	AL-SWKP4-L-AL-SWSP4/S370	8046573	8044020	8044021
				4A		PUR	GY	•	AL-SWKP4-L-AL-SWSP4/S370GY	8067910	8067912	8067913
				4A		PUR	OG	•	AL-SWKP4-L-AL-SWSP4/S7400	8067554	8067555	8067556
				4A		PVC	GY		AL-SWKP4-L-AL-SWSP4/P00	8051450	8051451	8051452
				4A		PVC	GY	•	AL-SWKP4-L-AL-SWSP4/P01	8051658	8051659	8051660
5	30V	3A		PUR	BK	•	AL-SWKP4.5-L-AL-SWSP4.5/S370	8052758	8052759	8052760		
		3A		PVC	GY		AL-SWKP4.5-L-AL-SWSP4.5/P00	8042850	8050038	8042852		
	Connection cable female, M8x1, angled, with LED	3	60V	3A	3P2	PUR	BK	•	AL-SWKP3P2-L-AL-SSP3/S370	8047130	8045932	8045933
				3A	3P2	PUR	GY	•	AL-SWKP3P2-L-AL-SSP3/S370GY	8059201	8059202	8059203
				3A	3P2	PUR	OG	•	AL-SWKP3P2-L-AL-SSP3/S7400	8059204	8059205	8059206
				3A	3P2	PVC	GY		AL-SWKP3P2-L-AL-SSP3/P00	8051531	8051532	8051533
				3A	3P2	PVC	GY	•	AL-SWKP3P2-L-AL-SSP3/P01	8051739	8051740	8051741
		4	60V	3A	4P2	PUR	BK	•	AL-SWKP4P2-L-AL-SSP4/S370	8049863	8045935	8045936
				3A	4P2	PUR	GY	•	AL-SWKP4P2-L-AL-SSP4/S370GY	8067968	8067969	8067970
				3A	4P2	PUR	OG	•	AL-SWKP4P2-L-AL-SSP4/S7400	8067649	8067703	8067704
				3A	4P2	PVC	GY		AL-SWKP4P2-L-AL-SSP4/P00	8051534	8051535	8051536
				3A	4P2	PVC	GY	•	AL-SWKP4P2-L-AL-SSP4/P01	8051742	8051743	8051744



\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

		Body				Cable			Item description	L = cable length*		
		Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
	Extension cable female, M8x1, straight shielded	3	60V	4A		PUR	BK	•	AL-SKPS3-L/S370	8046192	8046193	8046194
				4A		PVC	GY		AL-SKPS3-L/P00	8051140	8051141	8051142
				4A		PVC	GY	•	AL-SKPS3-L/P01	8051349	8051350	8051351
		4	60V	4A		PUR	BK	•	AL-SKPS4-L/S370	8046204	8046205	8046206
				4A		PVC	GY		AL-SKPS4-L/P00	8051152	8051153	8051154
				4A		PVC	GY	•	AL-SKPS4-L/P01	8051362	8051363	8051364
		5	30V	3A		PUR	BK	•	AL-SKPS4.5-L/S370	8047058	8051864	8051865
				3A		PVC	GY		AL-SKPS4.5-L/P00	8047046	8051854	8051855
			Extension cable female, M8x1, angled shielded	3	60V	4A		PUR	BK	•	AL-SWKPS3-L/S370	8046195
4A						PVC	GY		AL-SWKPS3-L/P00	8051143	8051144	8051145
4A						PVC	GY	•	AL-SWKPS3-L/P01	8051353	8051354	8051355
4	60V			4A		PUR	BK	•	AL-SWKPS4-L/S370	8046207	8046208	8046209
				4A		PVC	GY		AL-SWKPS4-L/P00	8051155	8051156	8051157
				4A		PVC	GY	•	AL-SWKPS4-L/P01	8051365	8051366	8051367
5	30V			3A		PUR	BK	•	AL-SWKPS4.5-L/S370	8047060	8051866	8051867
				3A		PVC	GY		AL-SWKPS4.5-L/P00	8047051	8051856	8051857
	Extension cable male, M8x1, straight shielded			3	60V	4A		PUR	BK	•	AL-SSPS3-L/S370	8046198
		4A				PVC	GY		AL-SSPS3-L/P00	8051146	8051147	8051148
		4A				PVC	GY	•	AL-SSPS3-L/P01	8051356	8051357	8051358
		4	60V	4A		PUR	BK	•	AL-SSPS4-L/S370	8046210	8046211	8046212
				4A		PVC	GY		AL-SSPS4-L/P00	8051158	8051159	8051160
				4A		PVC	GY	•	AL-SSPS4-L/P01	8051368	8051369	8051370
		5	30V	3A		PUR	BK	•	AL-SSPS4.5-L/S370	8047061	8050058	8050059
				3A		PVC	GY		AL-SSPS4.5-L/P00	8047048	8050048	8050049
			Extension cable male, M8x1, angled shielded	3	60V	4A		PUR	BK	•	AL-SWSPS3-L/S370	8046201
4A						PVC	GY		AL-SWSPS3-L/P00	8051149	8051150	8051151
4A						PVC	GY	•	AL-SWSPS3-L/P01	8051359	8051360	8051361
4	60V			4A		PUR	BK	•	AL-SWSPS4-L/S370	8046214	8046215	8046216
				4A		PVC	GY		AL-SWSPS4-L/P00	8051161	8051162	8051163
				4A		PVC	GY	•	AL-SWSPS4-L/P01	8051371	8051372	8051373
5	30V			3A		PUR	BK	•	AL-SWSPS4.5-L/S370	8047062	8050060	8050061
				3A		PVC	GY		AL-SWSPS4.5-L/P00	8047052	8050050	8050051

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.



		Body				Cable			Item description	L = cable length*		
		Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
	Connection cable female, M8x1, straight	3	60V	4A	PUR	BK	•	AL-SKPS3-L-AL-SSPS3/S370	8051896	8046246	8046247	
				4A	PVC	GY		AL-SKPS3-L-AL-SSPS3/P00	8051558	8051559	8051560	
				4A	PVC	GY	•	AL-SKPS3-L-AL-SSPS3/P01	8051766	8051767	8051768	
		4	60V	4A	PUR	BK	•	AL-SKPS4-L-AL-SSPS4/S370	8051914	8046258	8046259	
				4A	PVC	GY		AL-SKPS4-L-AL-SSPS4/P00	8051570	8051571	8051572	
				4A	PVC	GY	•	AL-SKPS4-L-AL-SSPS4/P01	8051778	8051779	8051780	
		5	30V	3A	PUR	BK	•	AL-SKPS4.5-L-AL-SSPS4.5/S370	8052768	8052769	8052770	
				3A	PVC	GY		AL-SKPS4.5-L-AL-SSPS4.5/P00	8042863	8042864	8042865	
			Connection cable female, M8x1, straight male, M8x1, straight shielded	3	60V	4A	PUR	BK	•	AL-SKPS3-L-AL-SWSPS3/S370	8051915	8046252
4A	PVC					GY		AL-SKPS3-L-AL-SWSPS3/P00	8051564	8051565	8051566	
4A	PVC					GY	•	AL-SKPS3-L-AL-SWSPS3/P01	8051772	8051773	8051774	
4	60V			4A	PUR	BK	•	AL-SKPS4-L-AL-SWSPS4/S370	8051916	8046264	8046265	
				4A	PVC	GY		AL-SKPS4-L-AL-SWSPS4/P00	8051576	8051577	8051578	
				4A	PVC	GY	•	AL-SKPS4-L-AL-SWSPS4/P01	8051784	8051785	8051786	
5	30V			3A	PUR	BK	•	AL-SKPS4.5-L-AL-SWSPS4.5/S370	8052777	8052778	8052779	
				3A	PVC	GY		AL-SKPS4.5-L-AL-SWSPS4.5/P00	8042876	8042877	8042878	
	Connection cable female, M8x1, angled male, M8x1, straight shielded			3	60V	4A	PUR	BK	•	AL-SWKPS3-L-AL-SSPS3/S370	8051917	8046255
		4A	PVC			GY		AL-SWKPS3-L-AL-SSPS3/P00	8051567	8051568	8051569	
		4A	PVC			GY	•	AL-SWKPS3-L-AL-SSPS3/P01	8051775	8051776	8051777	
		4	60V	4A	PUR	BK	•	AL-SWKPS4-L-AL-SSPS4/S370	8051918	8046267	8046268	
				4A	PVC	GY		AL-SWKPS4-L-AL-SSPS4/P00	8051579	8051580	8051581	
				4A	PVC	GY	•	AL-SWKPS4-L-AL-SSPS4/P01	8051787	8051788	8051789	
		5	30V	3A	PUR	BK	•	AL-SWKPS4.5-L-AL-SSPS4.5/S370	8052774	8052775	8052776	
				3A	PVC	GY		AL-SWKPS4.5-L-AL-SSPS4.5/P00	8042872	8042873	8042874	
			Connection cable female, M8x1, angled male, M8x1, angled shielded	3	60V	4A	PUR	BK	•	AL-SWKPS3-L-AL-SWSPS3/S370	8051919	8046249
4A	PVC					GY		AL-SWKPS3-L-AL-SWSPS3/P00	8051561	8051562	8051563	
4A	PVC					GY	•	AL-SWKPS3-L-AL-SWSPS3/P01	8051769	8051770	8051771	
4	60V			4A	PUR	BK	•	AL-SWKPS4-L-AL-SWSPS4/S370	8051920	8046261	8046262	
				4A	PVC	GY		AL-SWKPS4-L-AL-SWSPS4/P00	8051573	8051574	8051575	
				4A	PVC	GY	•	AL-SWKPS4-L-AL-SWSPS4/P01	8051781	8051782	8051783	
5	30V			3A	PUR	BK	•	AL-SWKPS4.5-L-AL-SWSPS4.5/S370	8052771	8052772	8052773	
				3A	PVC	GY		AL-SWKPS4.5-L-AL-SWSPS4.5/P00	8042868	8042869	8042870	

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.



		Body				Cable			Item description	L = cable length*			
		Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m	
	Extension cable female, Ø8mm snap, straight	3	60V	4A	PUR	BK	•	AL-KP3-L/S370	8051894	8044517	8051895		
				4A	PUR	GY	•	AL-KP3-L/S370GY	8059128	8059129	8059130		
				4A	PUR	OG	•	AL-KP3-L/S7400	8059131	8059132	8059133		
				4A	PVC	GY		AL-KP3-L/P00	8052490	8052491	8052492		
				4A	PVC	GY	•	AL-KP3-L/P01	8052493	8052494	8052495		
		4	60V	4A	PUR	BK	•	AL-KP4-L/S370	8043940	8045033	8052669		
				4A	PUR	GY	•	AL-KP4-L/S370GY	8067979	8067981	8067982		
				4A	PUR	OG	•	AL-KP4-L/S7400	8067709	8067708	8067710		
				4A	PVC	GY		AL-KP4-L/P00	8052690	8052691	8052692		
				4A	PVC	GY	•	AL-KP4-L/P01	8052717	8052718	8052719		
		5	30V	3A	PUR	BK	•	AL-KP4.5-L/S370	8050016	8050017	8050018		
				3A	PVC	GY		AL-KP4.5-L/P00	8043847	8050005	8050006		
			Extension cable female, Ø8mm snap, straight, with locking mechanism	3	60V	4A	PUR	BK	•	AL-ZKP3-L/S370	8052680	8052681	8052682
						4A	PUR	GY	•	AL-ZKP3-L/S370GY	8059140	8059141	8059142
						4A	PUR	OG	•	AL-ZKP3-L/S7400	8059143	8059144	8059145
4A	PVC					GY		AL-ZKP3-L/P00	8052705	8052706	8052707		
4A	PVC					GY	•	AL-ZKP3-L/P01	8052733	8052734	8052735		
4	60V			4A	PUR	BK	•	AL-ZKP4-L/S370	8046076	8051911	8051912		
				4A	PUR	GY	•	AL-ZKP4-L/S370GY	8068026	8068027	8068028		
				4A	PUR	OG	•	AL-ZKP4-L/S7400	8067747	8067749	8067750		
				4A	PVC	GY		AL-ZKP4-L/P00	8052708	8052709	8052710		
				4A	PVC	GY	•	AL-ZKP4-L/P01	8052736	8052737	8052738		
5	30V			3A	PUR	BK	•	AL-ZKP4.5-L/S370	8050025	8050026	8050027		
				3A	PVC	GY		AL-ZKP4.5-L/P00	8049768	8050009	8050010		

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.



		Body				Cable			Item description	L = cable length*			
		Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m	
	Extension cable female, Ø8mm snap, angled	3	60V	4A	PUR	BK	•	AL-WKP3-L/S370	8052670	8044518	8052671		
				4A	PUR	GY	•	AL-WKP3-L/S370GY	8059134	8059135	8059136		
				4A	PUR	OG	•	AL-WKP3-L/S7400	8059137	8059138	8059139		
				4A	PVC	GY		AL-WKP3-L/P00	8052693	8052694	8052695		
				4A	PVC	GY	•	AL-WKP3-L/P01	8052724	8052725	8052726		
		4	60V	4A	PUR	BK	•	AL-WKP4-L/S370	8052672	8045620	8052673		
				4A	PUR	GY	•	AL-WKP4-L/S370GY	8068015	8068022	8068023		
				4A	PUR	OG	•	AL-WKP4-L/S7400	8067716	8067745	8067746		
				4A	PVC	GY		AL-WKP4-L/P00	8052696	8052697	8052698		
				4A	PVC	GY	•	AL-WKP4-L/P01	8052720	8052721	8052722		
		5	30V	3A	PUR	BK	•	AL-WKP4.5-L/S370	8050022	8050023	8050024		
				3A	PVC	GY		AL-WKP4.5-L/P00	8049767	8050007	8050008		
			Extension cable female, Ø8mm snap, angled, with locking mechanism	3	60V	4A	PUR	BK	•	AL-ZWKP3-L/S370	8052683	8052684	8052685
						4A	PUR	GY	•	AL-ZWKP3-L/S370GY	8059146	8059147	8059148
						4A	PUR	OG	•	AL-ZWKP3-L/S7400	8059149	8059150	8059151
4A	PVC					GY		AL-ZWKP3-L/P00	8052711	8052712	8052713		
4A	PVC					GY	•	AL-ZWKP3-L/P01	8052739	8052740	8052741		
4	60V			4A	PUR	BK	•	AL-ZWKP4-L/S370	8046075	8052686	8052687		
				4A	PUR	GY	•	AL-ZWKP4-L/S370GY	8068035	8068036	8068037		
				4A	PUR	OG	•	AL-ZWKP4-L/S7400	8067751	8067752	8067753		
				4A	PVC	GY		AL-ZWKP4-L/P00	8052714	8052715	8052716		
				4A	PVC	GY	•	AL-ZWKP4-L/P01	8052742	8052743	8052744		
5	30V			3A	PUR	BK	•	AL-ZWKP4.5-L/S370	8050028	8050029	8050030		
				3A	PVC	GY		AL-ZWKP4.5-L/P00	8049769	8050011	8050012		

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

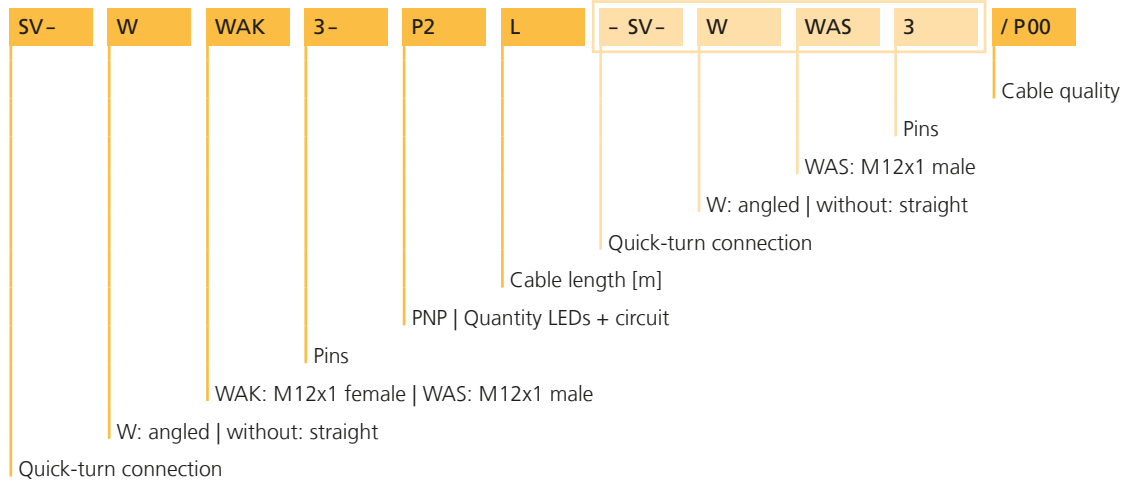
		Body				Cable			Item description	L = cable length*			
		Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m	
	Extension cable male, Ø8mm snap, straight	3	60V	4A	PUR	BK	•	AL-SP3-L/S370	8051905	8051906	8051907		
				4A	PUR	GY	•	AL-SP3-L/S370GY	8059164	8059165	8059166		
				4A	PUR	OG	•	AL-SP3-L/S7400	8059167	8059168	8059169		
				4A	PVC	GY		AL-SP3-L/P00	8052496	8052497	8052498		
				4A	PVC	GY	•	AL-SP3-L/P01	8052499	8052500	8052501		
		4	60V	4A	PUR	BK	•	AL-SP4-L/S370	8052674	8052675	8052676		
				4A	PUR	GY	•	AL-SP4-L/S370GY	8067972	8067973	8067978		
				4A	PUR	OG	•	AL-SP4-L/S7400	8067705	8067706	8067707		
				4A	PVC	GY		AL-SP4-L/P00	8052699	8052700	8052701		
				4A	PVC	GY	•	AL-SP4-L/P01	8052727	8052728	8052729		
		5	30V	3A	PUR	BK	•	AL-SP4.5-L/S370	8050013	8050014	8050015		
				3A	PVC	GY		AL-SP4.5-L/P00	8050000	8050001	8050002		
			Extension cable male, Ø8mm snap, angled	3	60V	4A	PUR	BK	•	AL-WSP3-L/S370	8051908	8051909	8051910
						4A	PUR	GY	•	AL-WSP3-L/S370GY	8059170	8059171	8059172
						4A	PUR	OG	•	AL-WSP3-L/S7400	8059173	8059174	8059175
4A	PVC					GY		AL-WSP3-L/P00	8052502	8052503	8052504		
4A	PVC					GY	•	AL-WSP3-L/P01	8052505	8052506	8052507		
4	60V			4A	PUR	BK	•	AL-WSP4-L/S370	8052677	8052678	8052679		
				4A	PUR	GY	•	AL-WSP4-L/S370GY	8068011	8068012	8068014		
				4A	PUR	OG	•	AL-WSP4-L/S7400	8067711	8067712	8067713		
				4A	PVC	GY		AL-WSP4-L/P00	8052702	8052703	8052704		
				4A	PVC	GY	•	AL-WSP4-L/P01	8052730	8052731	8052732		
5	30V			3A	PUR	BK	•	AL-WSP4.5-L/S370	8050019	8050020	8050021		
				3A	PVC	GY		AL-WSP4.5-L/P00	8043900	8050003	8050004		

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.



Nomenclature of patched connectors

Connection cable



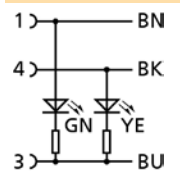
Quick-turn connection



**Cable**      **Short description**

P00   PVC	Flexible PVC/PVC sensor-/actuator control-cable for medium mechanical stresses. Conditioned oil- and chemical resistant.
S370   PUR	Flexible PUR/PP sensor-/actuator control-cable for high mechanical stresses. Halogen-free, flame retardant, medium torsion- and drag-chain capability, oil- and chemical resistant, UL-style.

**3P2 angled**












Nearly actual size


## Quick-turn connection

Technical data	M12x1
Insulation resistance	$\geq 10^8 \Omega$
Resistance	$\leq 5 m\Omega$
Ambient temperature product	-30°C...+80°C
Contact material	Metal, gold-plated
Contact-carrier material	Plastic, TPU
Grip body material	Plastic, TPU
Coupling nut material	Plastic, PBT, BK
Sealing (female) material	FPM/FKM
Standards	IEC 61076-2-101
Degree of protection (mounted)	IP65, IP67
Mechanical life-cycle	>50 mating cycles
Degree of pollution	3

Our S12x1-connectors with quick-turn connection provide full compatibility for your terminal devices with M12x1 thread. S12x1-connectors need 85% less installation time without adjustment of the opposite contour. High cohesion as well as an acoustic and haptic indication-signal stands for a safe and industrial-suited locking according to IP65 and IP67.

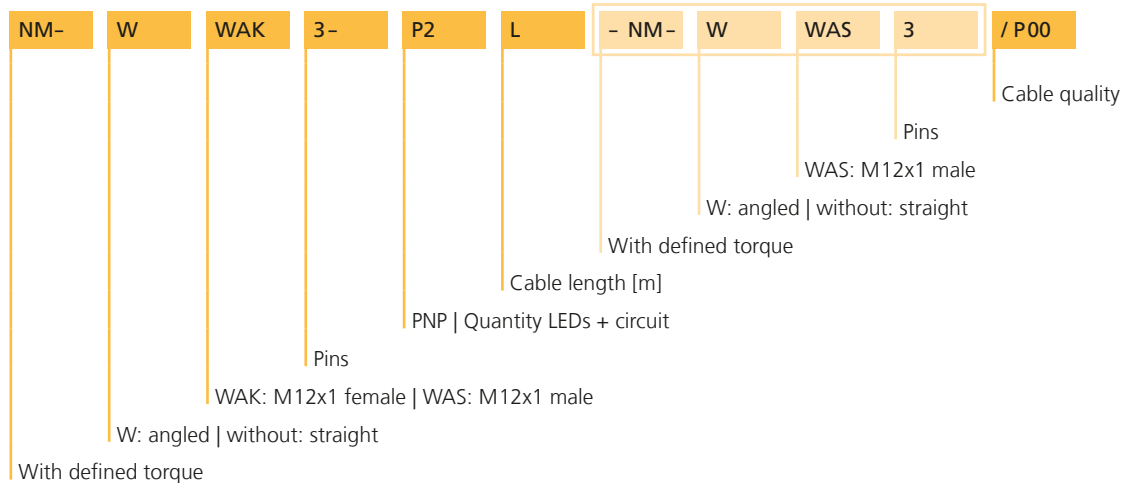
		Body				Cable			Item description	L = cable length*		
		Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
	Extension cable female, M12x1, straight, with quick-turn connection	3	250V	4A		PUR	BK	•	SV-WAK3-L/S370	8052092	8052093	8052094
				4A		PVC	GY		SV-WAK3-L/P00	8052152	8052153	8052154
		4	250V	4A		PUR	BK	•	SV-WAK4-L/S370	8052095	8052097	8052098
				4A		PVC	GY		SV-WAK4-L/P00	8039816	8038584	8039896
		4+PE	60V	4A		PUR	BK	•	SV-WAK5-L/S370	8052099	8052100	8045149
4A				PVC	GY		SV-WAK5-L/P00	8052193	8052194	8041337		
	Extension cable female, M12x1, angled, with quick-turn connection	3	250V	4A		PUR	BK	•	SV-WWAK3-L/S370	8052190	8050532	8052191
				4A		PVC	GY		SV-WWAK3-L/P00	8052196	8041334	8041335
		4	250V	4A		PUR	BK	•	SV-WWAK4-L/S370	8048009	8048010	8048011
				4A		PVC	GY		SV-WWAK4-L/P00	8039817	8039818	8039897
		4+PE	60V	4A		PUR	BK	•	SV-WWAK5-L/S370	8052105	8052106	8052107
4A				PVC	GY		SV-WWAK5-L/P00	8052155	8052156	8052157		
	Extension cable female, M12x1, angled, with LED, with quick-turn connection	3	30V	4A	3P2	PUR	BK	•	SV-WWAK3P2-L/S370	8052108	8052109	8052110
				4A	3P2	PVC	GY		SV-WWAK3P2-L/P00	8052158	8052159	8052160
	Extension cable male, M12x1, straight, with quick-turn connection	3	250V	4A		PUR	BK	•	SV-WAS3-L/S370	8052111	8052112	8052113
				4A		PVC	GY		SV-WAS3-L/P00	8052161	8052162	8052163
		4	250V	4A		PUR	BK	•	SV-WAS4-L/S370	8052114	8052115	8052116
				4A		PVC	GY		SV-WAS4-L/P00	8052164	8042592	8052165
		4+PE	60V	4A		PUR	BK	•	SV-WAS5-L/S370	8052117	8052118	8052119
4A				PVC	GY		SV-WAS5-L/P00	8052166	8052167	8052168		
	Extension cable male, M12x1, angled, with quick-turn connection	3	250V	4A		PUR	BK	•	SV-WWAS3-L/S370	8052120	8052121	8052122
				4A		PVC	GY		SV-WWAS3-L/P00	8052169	8052170	8052171
		4	250V	4A		PUR	BK	•	SV-WWAS4-L/S370	8052123	8052124	8052125
				4A		PVC	GY		SV-WWAS4-L/P00	8052172	8052173	8052174
		4+PE	60V	4A		PUR	BK	•	SV-WWAS5-L/S370	8052126	8052127	8052128
4A				PVC	GY		SV-WWAS5-L/P00	8052175	8052176	8052177		
 	Connection cable female, M12x1, straight, with quick-turn connection male, M12x1, straight, with quick-turn connection	3	250V	4A		PUR	BK	•	SV-WAK3-L-SV-WAS3/S370	8052129	8052130	8052131
				4A		PVC	GY		SV-WAK3-L-SV-WAS3/P00	8041340	8041341	8041342
		4	250V	4A		PUR	BK	•	SV-WAK4-L-SV-WAS4/S370	8052132	8052133	8052134
				4A		PVC	GY		SV-WAK4-L-SV-WAS4/P00	8046120	8047582	8040520
		4+PE	60V	4A		PUR	BK	•	SV-WAK5-L-SV-WAS5/S370	8052135	8052136	8052137
4A				PVC	GY		SV-WAK5-L-SV-WAS5/P00	8052178	8052179	8052180		

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

	Body				Cable			Item description	L = cable length*		
	Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
 <p>Connection cable female, M12x1, angled, with quick-turn connection male, M12x1, angled, with quick-turn connection</p>	3	250V	4A		PUR	BK	•	SV-WWAK3-L-SV-WWAS3/S370	8052138	8052139	8052140
			4A		PVC	GY		SV-WWAK3-L-SV-WWAS3/P00	8052181	8052182	8052183
	4	250V	4A		PUR	BK	•	SV-WWAK4-L-SV-WWAS4/S370	8052141	8052142	8052143
			4A		PVC	GY		SV-WWAK4-L-SV-WWAS4/P00	8052184	8052185	8052186
	4+PE	60V	4A		PUR	BK	•	SV-WWAK5-L-SV-WWAS5/S370	8052144	8052145	8052146
			4A		PVC	GY		SV-WWAK5-L-SV-WWAS5/P00	8052187	8052188	8052189

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

Nomenclature of patched connectors



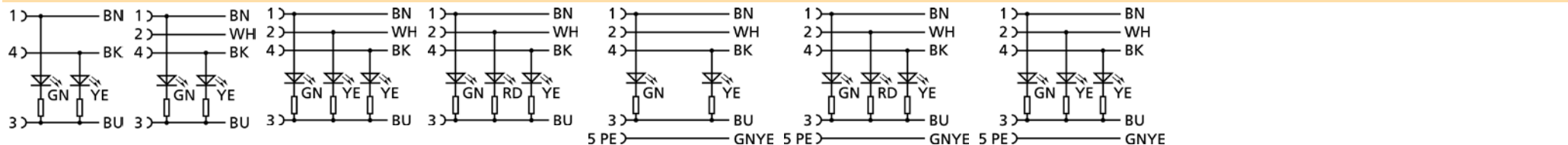
With defined torque



Cable	Short description
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P00   PVC	Flexible PVC/PVC sensor-/actuator control-cable for medium mechanical stresses. Conditioned oil- and chemical resistant.
S370   PUR	Flexible PUR/PP sensor-/actuator control-cable for high mechanical stresses. Halogen-free, flame retardant, medium torsion- and drag-chain capability, oil- and chemical resistant, UL-style.

3P2 angled	4P2 angled	4P3 angled	4P3.1 angled	5P2 angled	5P3.1 angled	5P3 angled
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Nearly actual size







With defined torque






### with defined torque

Even without a tool, M12x1-connectors with defined torque give a signal when they are tight. The integrated torque control-system ensures the connectors to seal in accordance with the IP65 and IP67 protection classes. As soon as the pre-defined torque has been reached, the locking-nut rotates freely and signalizes an industrial-suited connection to the user.

Technical data	M12x1
Insulation resistance	$\geq 10^8 \Omega$
Resistance	$\leq 5 m\Omega$
Ambient temperature product	-30°C...+80°C
Contact material	Metal, gold-plated
Contact-carrier material	Plastic, TPU
Grip body material	Plastic, TPU
Coupling nut material	Plastic, PA, BK
Sealing (female) material	FPM/FKM
Standards	referring to IEC 61076-2-101
Degree of protection (mounted)	IP65, IP67
Mechanical life-cycle	>100 mating cycles
Degree of pollution	3

		Body				Cable			L = cable length*					
		Pins	U[max]	I[max]	LED	Material	Color	UL	Item description			2m / 1m	5m / 2m	10m / 5m
	Extension cable female, M12x1, straight, with defined torque	3	250V	4A		PUR	BK	•	NM-WAK3-L/S370			8052350	8052351	8052353
				4A		PVC	GY		NM-WAK3-L/P00			8052411	8052412	8052413
		4	250V	4A		PUR	BK	•	NM-WAK4-L/S370			8052356	8052357	8045007
				4A		PVC	GY		NM-WAK4-L/P00			8052414	8052415	8052416
		4+PE	60V	4A		PUR	BK	•	NM-WAK5-L/S370			8052358	8052359	8052360
4A				PVC	GY		NM-WAK5-L/P00			8052417	8052418	8052419		
	Extension cable female, M12x1, angled, with defined torque	3	250V	4A		PUR	BK	•	NM-WWAK3-L/S370			8052361	8052362	8052363
				4A		PVC	GY		NM-WWAK3-L/P00			8052420	8052421	8052422
		4	250V	4A		PUR	BK	•	NM-WWAK4-L/S370			8052367	8052368	8052369
				4A		PVC	GY		NM-WWAK4-L/P00			8052426	8052427	8052428
		4+PE	60V	4A		PUR	BK	•	NM-WWAK5-L/S370			8052380	8052381	8052382
4A				PVC	GY		NM-WWAK5-L/P00			8052438	8052439	8052440		
	Extension cable female, M12x1, angled, with LED, with defined torque	3	30V	4A	3P2	PUR	BK	•	NM-WWAK3P2-L/S370			8052364	8052365	8052366
				4A	3P2	PVC	GY		NM-WWAK3P2-L/P00			8052423	8052424	8052425
		4	30V	4A	4P2	PUR	BK	•	NM-WWAK4P2-L/S370			8052370	8052371	8052373
				4A	4P2	PVC	GY		NM-WWAK4P2-L/P00			8052429	8052430	8052431
				4A	4P3	PUR	BK	•	NM-WWAK4P3-L/S370			8052374	8052375	8052376
				4A	4P3	PVC	GY		NM-WWAK4P3-L/P00			8052432	8052433	8052434
				4A	4P3.1	PUR	BK	•	NM-WWAK4P3.1-L/S370			8052377	8052378	8052379
				4A	4P3.1	PVC	GY		NM-WWAK4P3.1-L/P00			8052435	8052436	8052437
		4+PE	30V	4A	5P2	PUR	BK	•	NM-WWAK5P2-L/S370			8052383	8052384	8052385
				4A	5P2	PVC	GY		NM-WWAK5P2-L/P00			8052441	8052442	8052443
				4A	5P3	PUR	BK	•	NM-WWAK5P3-L/S370			8052386	8052387	8052388
				4A	5P3	PVC	GY		NM-WWAK5P3-L/P00			8052444	8052447	8052446
				4A	5P3.1	PUR	BK	•	NM-WWAK5P3.1-L/S370			8052389	8052390	8052391
4A	5P3.1	PVC	GY		NM-WWAK5P3.1-L/P00			8052448	8052449	8052450				
	Extension cable male, M12x1, straight, with defined torque	3	250V	4A		PUR	BK	•	NM-WAS3-L/S370			8052392	8052393	8052394
				4A		PVC	GY		NM-WAS3-L/P00			8052452	8052451	8052453
		4	250V	4A		PUR	BK	•	NM-WAS4-L/S370			8052395	8052397	8052396
				4A		PVC	GY		NM-WAS4-L/P00			8052454	8052455	8052456
		4+PE	60V	4A		PUR	BK	•	NM-WAS5-L/S370			8052398	8052399	8052400
4A				PVC	GY		NM-WAS5-L/P00			8052457	8052458	8052459		

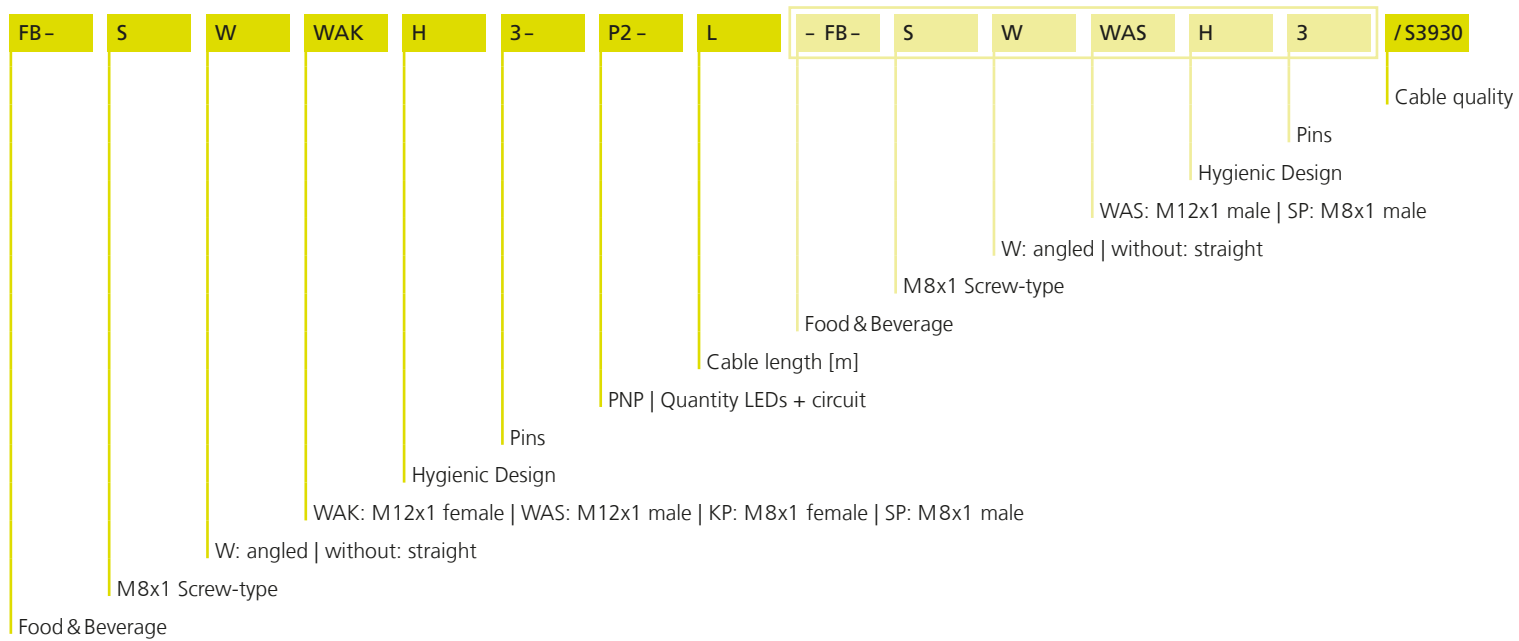
\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

		Body				Cable			Item description	L = cable length*		
		Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
 <p>Extension cable male, M12x1, angled, with defined torque</p>	3	250V	4A	PUR	BK	•	NM-WWAS3-L/S370	8052401	8052402	8052403		
			4A	PVC	GY		NM-WWAS3-L/P00	8052460	8052461	8052462		
	4	250V	4A	PUR	BK	•	NM-WWAS4-L/S370	8052404	8052405	8052406		
			4A	PVC	GY		NM-WWAS4-L/P00	8052463	8052464	8052465		
	4+PE	60V	4A	PUR	BK	•	NM-WWAS5-L/S370	8052407	8052408	8052409		
			4A	PVC	GY		NM-WWAS5-L/P00	8052466	8052467	8052468		
  <p>Connection cable female, M12x1, straight, with defined torque male, M12x1, straight, with defined torque</p>	3	250V	4A	PUR	BK	•	NM-WAK3-L-NM-WAS3/S370	8052560	8052561	8052562		
			4A	PVC	GY		NM-WAK3-L-NM-WAS3/P00	8052572	8052573	8052574		
	4	250V	4A	PUR	BK	•	NM-WAK4-L-NM-WAS4/S370	8045377	8045009	8045010		
			4A	PVC	GY		NM-WAK4-L-NM-WAS4/P00	8052575	8052576	8052577		
	4+PE	60V	4A	PUR	BK	•	NM-WAK5-L-NM-WAS5/S370	8052593	8052594	8052595		
			4A	PVC	GY		NM-WAK5-L-NM-WAS5/P00	8052589	8052590	8052591		
  <p>Connection cable female, M12x1, angled, with defined torque male, M12x1, angled, with defined torque</p>	3	250V	4A	PUR	BK	•	NM-WWAK3-L-NM-WWAS3/S370	8052563	8052564	8068457		
			4A	PVC	GY		NM-WWAK3-L-NM-WWAS3/P00	8052578	8052579	8052587		
	4	250V	4A	PUR	BK	•	NM-WWAK4-L-NM-WWAS4/S370	8052566	8052567	8068459		
			4A	PVC	GY		NM-WWAK4-L-NM-WWAS4/P00	8052581	8052582	8052588		
	4+PE	60V	4A	PUR	BK	•	NM-WWAK5-L-NM-WWAS5/S370	8052569	8052570	8068458		
			4A	PVC	GY		NM-WWAK5-L-NM-WWAS5/P00	8052584	8052585	8052586		

With defined torque

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

Nomenclature of patched connectors



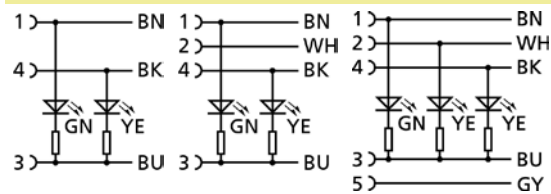
Food & Beverage



**Cable**      **Short description**

P00   PVC	Flexible PVC/PVC sensor-/actuator control-cable for medium mechanical stresses. Conditioned oil- and chemical resistant.
P01   PVC	Flexible PVC/PVC sensor-/actuator control-cable for medium mechanical stresses. Conditioned oil- and chemical resistant, UL-style.
S3930   TPE	Flexible TPE/TPE sensor-/actuator control-cable für food-applications. Good microbes- and chemical resistant, FDA-approves materials.

**3P2 angled**      **4P2 angled**      **4.5P3 angled**








Nearly actual size





## Food & Beverage

Technical data	M12x1	M8x1	Receptacle	Field-wireable
Insulation resistance	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$
Resistance	$\leq 5 m\Omega$	$\leq 5 m\Omega$	$\leq 5 m\Omega$	$\leq 5 m\Omega$
Ambient temperature product	-40°C...+105°C	-40°C...+105°C	-40°C...+105°C	-40°C...+85°C
Contact material	Metal, gold-plated	Metal, gold-plated	Metal, gold-plated	Metal, gold-plated
Contact-carrier material	Plastic, PP	Plastic, PP	Plastic, PP	Plastic, PA
Grip body material	Plastic, PP	Plastic, PP		Zinc die-cast, nickel-plated
Coupling nut material	Stainless steel, V4A	Stainless steel, V4A	Stainless steel, V4A	Stainless steel, V4A
Sealing (female) material	EPDM	EPDM	FPM/FKM	
Material of external sealing			NBR	
Receptacle housing material			V4A	
Standards	IEC 61076-2-101	IEC 61076-2-104	IEC 61076-2-101	IEC 61076-2-101
Degree of protection (mounted)	IP65, IP67, IP68, IP69	IP65, IP67, IP68, IP69	IP65, IP67, IP68, IP69	IP67
Mechanical life-cycle	>100 mating cycles	>100 mating cycles	>100 mating cycles	>100 mating cycles
Degree of pollution	3	3/2	3	3
Clamping area				4...6mm
Connecting cross-section				max. 0.75mm <sup>2</sup>










Our Food&Beverage connectors in 'Hygienic Design' refer to EHEDG directives. FDA-compliant materials guarantee a high resistance to sour and alkaline cleaning- and disinfectant agents. All M8x1- and M12x1-components are dust- and water-proof as well as protected against water with high pressure and steam-jet cleaning (IP65, IP67, IP68 and IP69). With PVC and PTE we offer the right cable qualities for your application.

	Body				Cable			Item description	L = cable length*		
	Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
 Extension cable female, M12x1, straight	3	250V	4A		PVC	GY		FB-WAKH3-L/P00	8063805	8063806	8063807
			4A		PVC	GY	•	FB-WAKH3-L/P01	8063748	8063749	8063752
			4A		TPE	GY		FB-WAKH3-L/S3930	8050462	8058555	8058556
	4	250V	4A		PVC	GY		FB-WAKH4-L/P00	8063811	8063812	8063813
			4A		PVC	GY	•	FB-WAKH4-L/P01	8063724	8063725	8063728
			4A		TPE	GY		FB-WAKH4-L/S3930	8050464	8058557	8058558
	5	60V	4A		PVC	GY		FB-WAKH4.5-L/P00	8063817	8063818	8063819
			4A		PVC	GY	•	FB-WAKH4.5-L/P01	8063739	8063740	8063741
			4A		TPE	GY		FB-WAKH4.5-L/S3930	8063882	8063883	8063884
 Extension cable female, M12x1, angled	3	250V	4A		PVC	GY		FB-WWAKH3-L/P00	8063834	8063835	8063836
			4A		PVC	GY	•	FB-WWAKH3-L/P01	8063703	8063704	8063705
			4A		TPE	GY		FB-WWAKH3-L/S3930	8050463	8058559	8058560
	4	250V	4A		PVC	GY		FB-WWAKH4-L/P00	8063799	8063800	8063801
			4A		PVC	GY	•	FB-WWAKH4-L/P01	8063672	8063673	8063674
			4A		TPE	GY		FB-WWAKH4-L/S3930	8050465	8058561	8058562
	5	60V	4A		PVC	GY		FB-WWAKH4.5-L/P00	8063823	8063824	8063825
			4A		PVC	GY	•	FB-WWAKH4.5-L/P01	8063687	8063688	8063689
			4A		TPE	GY		FB-WWAKH4.5-L/S3930	8063885	8063886	8063887
 Extension cable female, M12x1, angled, with LED	3	30V	3A	3P2	PVC	GY		FB-WWAKH3P2-L/P00	8063826	8063827	8063828
			3A	3P2	PVC	GY	•	FB-WWAKH3P2-L/P01	8063692	8063693	8063694
			3A	3P2	TPE	GY		FB-WWAKH3P2-L/S3930	8058611	8058612	8058613
	4	30V	3A	4P2	PVC	GY		FB-WWAKH4P2-L/P00	8063787	8063788	8063789
			3A	4P2	PVC	GY	•	FB-WWAKH4P2-L/P01	8063666	8063667	8063668
			3A	4P2	TPE	GY		FB-WWAKH4P2-L/S3930	8058614	8058615	8058616
	5	30V	3A	5P3	PVC	GY		FB-WWAKH4.5P3-L/P00	8063808	8063809	8063810
			3A	5P3	PVC	GY	•	FB-WWAKH4.5P3-L/P01	8063678	8063679	8063680
			3A	5P3	TPE	GY		FB-WWAKH4.5P3-L/S3930	8063802	8063803	8063804

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.






		Body				Cable			L = cable length*			
		Pins	U[max]	I[max]	LED	Material	Color	UL	Item description	2m / 1m	5m / 2m	10m / 5m
	Extension cable male, M12x1, straight	3	250V	4A		PVC	GY		FB-WASH3-L/P00	8063843	8063844	8063845
				4A		PVC	GY	•	FB-WASH3-L/P01	8063715	8063716	8063717
				4A		TPE	GY		FB-WASH3-L/S3930	8050468	8058563	8058564
		4	250V	4A		PVC	GY		FB-WASH4-L/P00	8063837	8063838	8063839
				4A		PVC	GY	•	FB-WASH4-L/P01	8063706	8063707	8063708
				4A		TPE	GY		FB-WASH4-L/S3930	8050470	8058565	8058566
		5	60V	4A		PVC	GY		FB-WASH4.5-L/P00	8063840	8063841	8063842
				4A		PVC	GY	•	FB-WASH4.5-L/P01	8063709	8063710	8063711
				4A		TPE	GY		FB-WASH4.5-L/S3930	8063888	8063889	8063890
	Extension cable male, M12x1, angled	3	250V	4A		PVC	GY		FB-WWASH3-L/P00	8063781	8063782	8063783
				4A		PVC	GY	•	FB-WWASH3-L/P01	8063663	8063664	8063665
				4A		TPE	GY		FB-WWASH3-L/S3930	8050469	8058567	8058568
		4	250V	4A		PVC	GY		FB-WWASH4-L/P00	8063775	8063776	8063777
				4A		PVC	GY	•	FB-WWASH4-L/P01	8063655	8063656	8063657
				4A		TPE	GY		FB-WWASH4-L/S3930	8050471	8058569	8058570
		5	60V	4A		PVC	GY		FB-WWASH4.5-L/P00	8063675	8063676	8063677
				4A		PVC	GY	•	FB-WWASH4.5-L/P01	8063660	8063661	8063662
				4A		TPE	GY		FB-WWASH4.5-L/S3930	8063891	8063892	8063893
 	Connection cable female, M12x1, straight male, M12x1, straight	3	250V	4A		PVC	GY		FB-WAKH3-L-FB-WASH3/P00	8063852	8063853	8063854
				4A		PVC	GY	•	FB-WAKH3-L-FB-WASH3/P01	8063742	8063744	8063747
				4A		TPE	GY		FB-WAKH3-L-FB-WASH3/S3930	8058587	8058588	8058589
		4	250V	4A		PVC	GY		FB-WAKH4-L-FB-WASH4/P00	8063846	8063847	8063848
				4A		PVC	GY	•	FB-WAKH4-L-FB-WASH4/P01	8063721	8063722	8063723
				4A		TPE	GY		FB-WAKH4-L-FB-WASH4/S3930	8058590	8058591	8058592
		5	60V	4A		PVC	GY		FB-WAKH4.5-L-FB-WASH4.5/P00	8063849	8063850	8063851
				4A		PVC	GY	•	FB-WAKH4.5-L-FB-WASH4.5/P01	8063733	8063734	8063735
				4A		TPE	GY		FB-WAKH4.5-L-FB-WASH4.5/S3930	8063681	8063682	8063683

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.





		Body				Cable			Item description	L = cable length*			
		Pins	U[max]	I[max]	LED	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m	
	Connection cable female, M12x1, angled male, M12x1, angled	3	250V	4A		PVC	GY		FB-WWAKH3-L-FB-WWASH3/P00	8063831	8063832	8063833	
				4A		PVC	GY	•	FB-WWAKH3-L-FB-WWASH3/P01	8063697	8063698	8063699	
				4A		TPE	GY		FB-WWAKH3-L-FB-WWASH3/S3930	8058593	8058594	8058595	
			4	250V	4A		PVC	GY		FB-WWAKH4-L-FB-WWASH4/P00	8063793	8063794	8063795
					4A		PVC	GY	•	FB-WWAKH4-L-FB-WWASH4/P01	8063669	8063670	8063671
					4A		TPE	GY		FB-WWAKH4-L-FB-WWASH4/S3930	8058596	8058597	8058598
			5	60V	4A		PVC	GY		FB-WWAKH4.5-L-FB-WWASH4.5/P00	8063820	8063821	8063822
					4A		PVC	GY	•	FB-WWAKH4.5-L-FB-WWASH4.5/P01	8063684	8063685	8063686
					4A		TPE	GY		FB-WWAKH4.5-L-FB-WWASH4.5/S3930	8063814	8063815	8063816
	Receptacle female, M12x1, straight Soldering contact Front wall-mounting	4	250V	4A					FB-FVM12KUA4-L/PG9	8068276			
				5	60V	4A					FB-FVM12KUA4.5-L/PG9	8068277	
	Receptacle female, M12x1, straight Wire contact Front wall-mounting	4	250V	4A					FB-FVM12KUA4-0,5/PG9	8068278			
				5	60V	4A					FB-FVM12KUA4.5-0,5/PG9	8068279	
	Receptacle male, M12x1, straight Soldering contact Front wall-mounting	4	250V	4A					FB-FVM12SUA4-L/PG9	8068272			
				5	60V	4A					FB-FVM12SUA4.5-L/PG9	8068273	
	Receptacle male, M12x1, straight Wire contact Front wall-mounting	4	250V	4A					FB-FVM12SUA4-0,5/PG9	8068274			
				5	60V	4A					FB-FVM12SUA4.5-0,5/PG9	8068275	
	Connector field-wireable female, M12x1, straight Screw-/clamp contact	5	125V	4A					WAKCE5K	8063393			
	Connector field-wireable female, M12x1, angled Screw-/clamp contact	5	125V	4A					WWAKCE5K	8063395			
	Connector field-wireable male, M12x1, straight Screw-/clamp contact	5	125V	4A					WASCE5K	8063394			
	Connector field-wireable male, M12x1, angled Screw-/clamp contact	5	125V	4A					WWASCE5K	8063396			

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.



		Body				Cable			L = cable length*			
		Pins	U[max]	I[max]	LED	Material	Color	UL	Item description	2m / 1m	5m / 2m	10m / 5m
	Extension cable female, M8x1, straight	3	60V	4A		PVC	GY		FB-SKPH3-L/P00	8063690	8063653	8063691
				4A		PVC	GY	•	FB-SKPH3-L/P01	8063700	8063701	8063702
				4A		TPE	GY		FB-SKPH3-L/S3930	8050454	8058571	8058572
		4	60V	4A		PVC	GY		FB-SKPH4-L/P00	8063652	8063695	8063696
				4A		PVC	GY	•	FB-SKPH4-L/P01	8063712	8063713	8063714
				4A		TPE	GY		FB-SKPH4-L/S3930	8050455	8058573	8058574
	Extension cable female, M8x1, angled	3	60V	4A		PVC	GY		FB-SWKPH3-L/P00	8063718	8063719	8063720
				4A		PVC	GY	•	FB-SWKPH3-L/P01	8063730	8063731	8063732
				4A		TPE	GY		FB-SWKPH3-L/S3930	8050456	8058575	8058576
		4	60V	4A		PVC	GY		FB-SWKPH4-L/P00	8063726	8063727	8063729
				4A		PVC	GY	•	FB-SWKPH4-L/P01	8063736	8063737	8063738
				4A		TPE	GY		FB-SWKPH4-L/S3930	8050457	8058577	8058578
	Extension cable female, M8x1, angled, with LED	3	30V	3A	3P2	PVC	GY		FB-SWKPH3P2-L/P00	8063743	8063745	8063746
				3A	3P2	PVC	GY	•	FB-SWKPH3P2-L/P01	8063761	8063763	8063765
				3A	3P2	TPE	GY		FB-SWKPH3P2-L/S3930	8058619	8058620	8058621
		4	30V	3A	4P2	PVC	GY		FB-SWKPH4P2-L/P00	8063750	8063751	8063753
				3A	4P2	PVC	GY	•	FB-SWKPH4P2-L/P01	8063760	8063762	8063764
				3A	4P2	TPE	GY		FB-SWKPH4P2-L/S3930	8058622	8058623	8058624
	Extension cable male, M8x1, straight	3	60V	4A		PVC	GY		FB-SSPH3-L/P00	8063769	8063770	8063771
				4A		PVC	GY	•	FB-SSPH3-L/P01	8063778	8063779	8063780
				4A		TPE	GY		FB-SSPH3-L/S3930	8050458	8058579	8058580
		4	60V	4A		PVC	GY		FB-SSPH4-L/P00	8063772	8063773	8063774
				4A		PVC	GY	•	FB-SSPH4-L/P01	8063784	8063785	8063786
				4A		TPE	GY		FB-SSPH4-L/S3930	8050459	8058581	8058582
	Extension cable male, M8x1, angled	3	60V	4A		PVC	GY		FB-SWSPH3-L/P00	8063790	8063791	8063792
				4A		PVC	GY	•	FB-SWSPH3-L/P01	8063757	8063758	8063759
				4A		TPE	GY		FB-SWSPH3-L/S3930	8050460	8058583	8058584
		4	60V	4A		PVC	GY		FB-SWSPH4-L/P00	8063796	8063797	8063798
				4A		PVC	GY	•	FB-SWSPH4-L/P01	8063754	8063755	8063756
				4A		TPE	GY		FB-SWSPH4-L/S3930	8050461	8058585	8058586

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

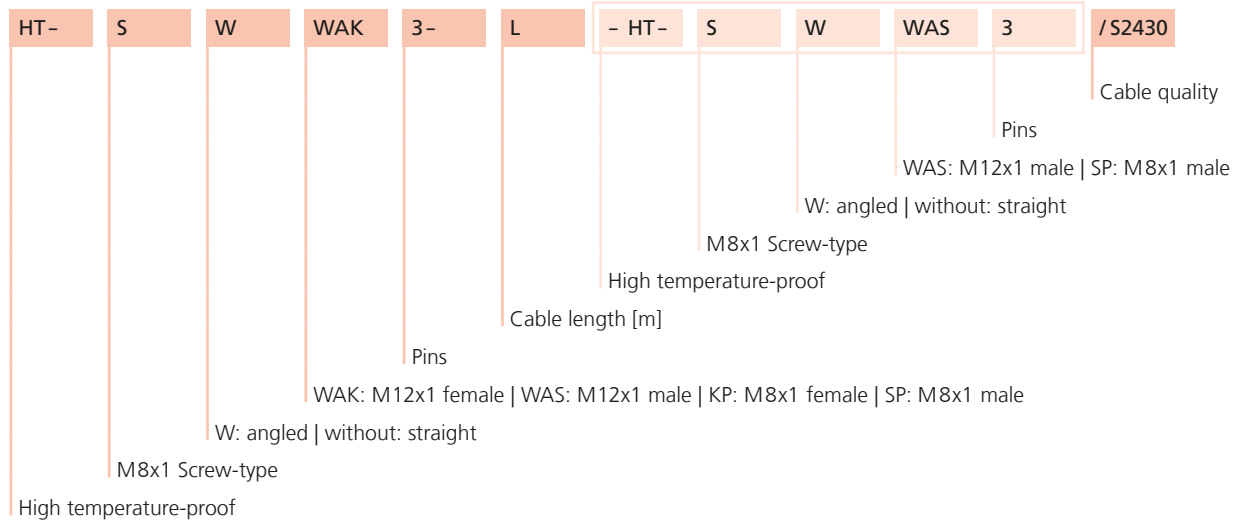
		Body				Cable			L = cable length*				
		Pins	U[max]	I[max]	LED	Material	Color	UL	Item description				
									2m / 1m	5m / 2m	10m / 5m		
	Connection cable female, M8x1, straight	3	60V	4A		PVC	GY		FB-SKPH3-L-FB-SSPH3/P00	8063875	8063876	8063877	
				4A		PVC	GY	•	FB-SKPH3-L-FB-SSPH3/P01	8063864	8063865	8063866	
				4A		TPE	GY		FB-SKPH3-L-FB-SSPH3/S3930	8058599	8058600	8058601	
			4	60V	4A		PVC	GY		FB-SKPH4-L-FB-SSPH4/P00	8063861	8063862	8063863
					4A		PVC	GY	•	FB-SKPH4-L-FB-SSPH4/P01	8063867	8063868	8063869
					4A		TPE	GY		FB-SKPH4-L-FB-SSPH4/S3930	8058602	8058603	8058604
	Connection cable female, M8x1, angled	3	60V	4A		PVC	GY		FB-SWKPH3-L-FB-SWSPH3/P00	8063858	8063859	8063860	
				4A		PVC	GY	•	FB-SWKPH3-L-FB-SWSPH3/P01	8063871	8063872	8063873	
				4A		TPE	GY		FB-SWKPH3-L-FB-SWSPH3/S3930	8058605	8058606	8058607	
			4	60V	4A		PVC	GY		FB-SWKPH4-L-FB-SWSPH4/P00	8063855	8063856	8063857
					4A		PVC	GY	•	FB-SWKPH4-L-FB-SWSPH4/P01	8063766	8063767	8063768
					4A		TPE	GY		FB-SWKPH4-L-FB-SWSPH4/S3930	8058608	8058609	8058610

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.



Nomenclature of patched connectors

Connection cable



Cable	Short description
S2430   PTFE	Flexible PTFE/PTFE sensor-/actuator signal-cable for high-temperature applications. Good oil- and chemical resistant, flame retardant.

High temperature-proof











Nearly actual size









## High temperature-proof

Technical data	M12x1	M8x1	Receptacles
Insulation resistance	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$
Resistance	$\leq 5 m\Omega$	$\leq 5 m\Omega$	$\leq 5 m\Omega$
Ambient temperature product	-20°C...+150°C	-20°C...+150°C	-20°C...+150°C
Contact material	Metal, gold-plated	Metal, gold-plated	Metal, gold-plated
Contact-carrier material	Plastic, PBT GF	Plastic, PBT GF	Plastic, PBT GF
Grip body material	Plastic, PBT GF	Plastic, PBT GF	
Coupling nut material	Metal, CuZn, nickel-plated	Metal, CuZn, nickel-plated	
Sealing (female) material	FPM/FKM	FPM/FKM	FPM/FKM
Material of external sealing			FPM/FKM
Receptacle housing material			Metal, CuZn, nickel-plated
Standards	IEC 61076-2-101	IEC 61076-2-104	IEC 61076-2-101
Degree of protection (mounted)	IP65	IP65	IP65, IP67, IP68
Mechanical life-cycle	>100 mating cycles	>100 mating cycles	>100 mating cycles
Degree of pollution	3	3	3

Due to high-temperature proof materials, our M8x1- and M12x1-connectors guarantee a reliable operating-mode even in extraordinary high-temperature applications. Permanent operating temperatures of -20°C to +150°C and a short term maximum operating temperature of +200°C do not state a problem to this product line.

		Body				Cable			Item description	L = cable length*		
		Pins	U[max]	I[max]	Special	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
	Extension cable female, M12x1, straight	3	250V	4A		PTFE	WH		HT-WAK3-L/S2430	8039210	8036085	8039211
		4	250V	4A		PTFE	WH		HT-WAK4-L/S2430	8036518	8036086	8036154
		5	60V	4A		PTFE	WH		HT-WAK4.5-L/S2430	8039212	8036087	8039213
		8	30V	2A		PTFE	WH		HT-WAK8-L/S2430	8039214	8039215	8039216
		12	30V	1.5A		PTFE	WH		HT-WAK12-L/S2430	8039711	8039712	8039713
	Extension cable female, M12x1, angled	3	250V	4A		PTFE	WH		HT-WWAK3-L/S2430	8039224	8036088	8039225
		4	250V	4A		PTFE	WH		HT-WWAK4-L/S2430	8039226	8036089	8037214
		5	60V	4A		PTFE	WH		HT-WWAK4.5-L/S2430	8039227	8036090	8039228
		8	30V	2A		PTFE	WH		HT-WWAK8-L/S2430	8039229	8037024	8039230
		12	30V	1.5A		PTFE	WH		HT-WWAK12-L/S2430	8039940	8039941	8039942
	Extension cable male, M12x1, straight	3	250V	4A		PTFE	WH		HT-WAS3-L/S2430	8039231	8036091	8039232
		4	250V	4A		PTFE	WH		HT-WAS4-L/S2430	8039233	8036092	8039234
		5	60V	4A		PTFE	WH		HT-WAS4.5-L/S2430	8039235	8036093	8038342
		8	30V	2A		PTFE	WH		HT-WAS8-L/S2430	8039236	8039237	8039238
		12	30V	1.5A		PTFE	WH		HT-WAS12-L/S2430	8039943	8039944	8039945
	Extension cable male, M12x1, angled	3	250V	4A		PTFE	WH		HT-WWAS3-L/S2430	8039467	8036094	8039468
		4	250V	4A		PTFE	WH		HT-WWAS4-L/S2430	8039469	8036095	8039470
		5	60V	4A		PTFE	WH		HT-WWAS4.5-L/S2430	8039471	8036096	8039472
		8	30V	2A		PTFE	WH		HT-WWAS8-L/S2430	8039473	8039474	8039475
		12	30V	1.5A		PTFE	WH		HT-WWAS12-L/S2430	8039476	8039477	8039478
 	Connection cable female, M12x1, straight male, M12x1, straight	3	250V	4A		PTFE	WH		HT-WAK3-L-HT-WAS3/S2430	8036254	8039479	8039480
		4	250V	4A		PTFE	WH		HT-WAK4-L-HT-WAS4/S2430	8038667	8038668	8038669
		5	60V	4A		PTFE	WH		HT-WAK4.5-L-HT-WAS4.5/S2430	8051958	8039949	8039950
		8	30V	2A		PTFE	WH		HT-WAK8-L-HT-WAS8/S2430	8051960	8039952	8039953
		12	30V	1.5A		PTFE	WH		HT-WAK12-L-HT-WAS12/S2430	8051962	8039955	8039956
 	Connection cable female, M12x1, angled male, M12x1, angled	3	250V	4A		PTFE	WH		HT-WWAK3-L-HT-WWAS3/S2430	8051956	8039958	8039959
		4	250V	4A		PTFE	WH		HT-WWAK4-L-HT-WWAS4/S2430	8051957	8039961	8039137
		5	60V	4A		PTFE	WH		HT-WWAK4.5-L-HT-WWAS4.5/S2430	8051959	8039963	8039964
		8	30V	2A		PTFE	WH		HT-WWAK8-L-HT-WWAS8/S2430	8051961	8039966	8039967
		12	30V	1.5A		PTFE	WH		HT-WWAK12-L-HT-WWAS12/S2430	8051963	8039969	8039970

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

		Body				Cable			Item description	L = cable length*		
		Pins	U[max]	I[max]	Special	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
	Receptacle female, M12x1, straight Wire contact Front wall-mounting	3	250V	4A					HT-FK3-0,5/16/S2470	8037311		
		4	250V	4A					HT-FK4-0,5/16/S2470	8037322		
		5	60V	4A					HT-FK4.5-0,5/16/S2470	8037323		
		8	30V	2A					HT-FK8-0,5/16/S2470	8037324		
		12	30V	1.5A					HT-FK12-0,5/16/S2470	8037325		
	Receptacle male, M12x1, straight Wire contact Front wall-mounting	3	250V	4A					HT-FS3-0,5/16/S2470	8037288		
		4	250V	4A					HT-FS4-0,5/16/S2470	8037292		
		5	60V	4A					HT-FS4.5-0,5/16/S2470	8037293		
		8	30V	2A					HT-FS8-0,5/16/S2470	8037294		
		12	30V	1.5A					HT-FS12-0,5/16/S2470	8037295		
	Extension cable female, M8x1, straight	3	60V	4A		PTFE	WH		HT-SKP3-L/S2430	8036605	8036097	8039482
		4	60V	4A		PTFE	WH		HT-SKP4-L/S2430	8039483	8036098	8037215
	Extension cable female, M8x1, angled	3	60V	4A		PTFE	WH		HT-SWKP3-L/S2430	8039484	8036099	8039485
		4	60V	4A		PTFE	WH		HT-SWKP4-L/S2430	8039486	8036100	8037216
	Extension cable male, M8x1, straight	3	60V	4A		PTFE	WH		HT-SSP3-L/S2430	8039487	8036101	8039488
		4	60V	4A		PTFE	WH		HT-SSP4-L/S2430	8039489	8036102	8039490
	Extension cable male, M8x1, angled	3	60V	4A		PTFE	WH		HT-SWSP3-L/S2430	8039491	8036103	8039492
		4	60V	4A		PTFE	WH		HT-SWSP4-L/S2430	8039493	8036104	8039494
	Connection cable female, M8x1, straight	3	60V	4A		PTFE	WH		HT-SKP3-L-HT-SSP3/S2430	8043355	8039972	8039973
		4	60V	4A		PTFE	WH		HT-SKP4-L-HT-SSP4/S2430	8051990	8039975	8039976
	Connection cable female, M8x1, angled	3	60V	4A		PTFE	WH		HT-SWKP3-L-HT-SWSP3/S2430	8051991	8039978	8039979
		4	60V	4A		PTFE	WH		HT-SWKP4-L-HT-SWSP4/S2430	8051992	8039981	8039982

High temperature-proof

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

Nomenclature

IE-	W	FK	F	D	E	S	X	8-	F	L	/ 16	/ S3500	/ S3525

Product line

W: angled | without: straight

FK: female | FS: male

F: M12x1 Threaded front (Back-wall mounting) | S: M8x1: Screw-type

D: Adjustable

E: Stainless steel 1.4404 | without: CuZn, nickel-plated

S: Shielded

X: Coding

8-: Pins

F: M8x1 Threaded front (Back-wall mounting)

L: Cable length/Wire-length [m]

/ 16: Screw in thread 16: M16x1.5 | 12: M12x1

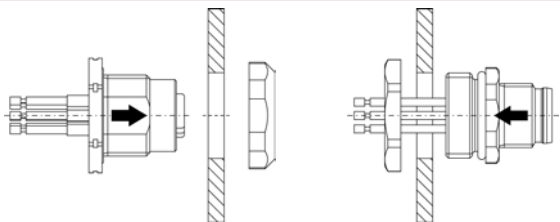
/ S3500: Cable quality

/ S3525: Extra: e.g wall-thickness compensation or colored contact-carrier



Back wall-mounting

Front wall-mounting

























Nearly actual size \*










## Panel connectors | Receptacles










Technical data	Receptacle M12x1	Receptacle M8x1	Panel connector M12x1	Panel connector M8x1	Panel connector Ø8mm snap
Insulation resistance	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$
Resistance	$\leq 5 \text{ m}\Omega$	$\leq 5 \text{ m}\Omega$	$\leq 5 \text{ m}\Omega$	$\leq 5 \text{ m}\Omega$	$\leq 5 \text{ m}\Omega$
Ambient temperature product	-30°C...+90°C (*+70°C)	-30°C...+90°C	-30°C...+90°C	-30°C...+90°C	-30°C...+90°C
Contact material	Metal, CuZn, gold-plated	Metal, CuZn, gold-plated	Metal, gold-plated	Metal, gold-plated	Metal, gold-plated
Contact-carrier material	Plastic	Plastic	Plastic	Plastic	Plastic, PA
Sealing (female) material	FPM/FKM	FPM/FKM			
Material of external sealing	NBR	NBR			
Receptacle housing material	Metal   Stainless steel	Metal   Stainless steel			
Standards	IEC 61076-2-101	IEC 61076-2-104	IEC 61076-2-101	IEC 61076-2-104	IEC 61076-2-104
Degree of protection (mounted)	IP65, IP67, IP68	IP65, IP67, IP68	IP65, IP67, IP68	IP65, IP67, IP68	IP65, IP67, IP68
Mechanical life-cycle	>100 mating cycles	>100 mating cycles	>100 mating cycles	>100 mating cycles	>100 mating cycles
Degree of pollution	3	3/2	3	3/2	3/2











		Connecting type	Screw-in thread	Pins	Cod	U[max]	I[max]	Δh[mm]	UL	L [m]	Item description	Item-No.
	Receptacle female, M12x1, straight Front wall-mounting	Soldering contact	M16x1.5	3	A	250V	4A		•		EC-FK3-L/16	8027566
				4	A	250V	4A		•		EC-FK4-L/16	8027569
				4+PE	A	60V	4A		•		EC-FK5-L/16	8027570
				5	A	60V	4A		•		EC-FK4.5-L/16	8052079
				8	A	30V	2A		•		EC-FK8-L/16	8028122
				12	A	30V	1.5A				EC-FK12-L/16	8028124
	Receptacle female, M12x1, straight Front wall-mounting	Wire contact	M16x1.5	3	A	250V	4A		•	0.5	EC-FK3-0,5/16	8027515
				4	A	250V	4A		•	0.5	EC-FK4-0,5/16	8027516
				4+PE	A	60V	4A		•	0.5	EC-FK5-0,5/16	8027520
				5	A	60V	4A		•	0.5	EC-FK4.5-0,5/16	8027519
				8	A	30V	2A		•	0.5	EC-FK8-0,5/16	8028110
				12	A	30V	1.5A			0.5	EC-FK12-0,5/16	8028116
	Receptacle female, M12x1, straight Front wall-mounting Stainless steel	Soldering contact	M16x1.5	3	A	250V	4A		•		EC-FKE3-L/16	8029169
				4	A	250V	4A		•		EC-FKE4-L/16	8029170
				4+PE	A	60V	4A		•		EC-FKE5-L/16	8029171
				5	A	60V	4A		•		EC-FKE4.5-L/16	8052080
				8	A	30V	2A		•		EC-FKE8-L/16	8029016
				12	A	30V	1.5A				EC-FKE12-L/16	8029701
	Receptacle female, M12x1, straight Front wall-mounting Stainless steel	Wire contact	M16x1.5	3	A	250V	4A		•	0.5	EC-FKE3-0,5/16	8028126
				4	A	250V	4A		•	0.5	EC-FKE4-0,5/16	8028127
				4+PE	A	60V	4A		•	0.5	EC-FKE5-0,5/16	8028131
				5	A	60V	4A		•	0.5	EC-FKE4.5-0,5/16	8028128
				8	A	30V	2A		•	0.5	EC-FKE8-0,5/16	8029015
				12	A	30V	1.5A			0.5	EC-FKE12-0,5/16	8029696
	Receptacle female, M12x1, straight Front wall-mounting Adjustable fixing screw	Wire contact	M16x1.5	3	A	250V	4A		•	0.5	EC-FKD3-0,5/16	8027526
				4	A	250V	4A		•	0.5	EC-FKD4-0,5/16	8027527
				4+PE	A	60V	4A		•	0.5	EC-FKD5-0,5/16	8027529
				5	A	60V	4A		•	0.5	EC-FKD4.5-0,5/16	8027528
				8	A	30V	2A		•	0.5	EC-FKD8-0,5/16	8028111
				12	A	30V	1.5A			0.5	EC-FKD12-0,5/16	8028117
	Receptacle male, M12x1, straight Front wall-mounting	Soldering contact	M16x1.5	3	A	250V	4A		•		EC-FS3-L/16	8029545
				4	A	250V	4A		•		EC-FS4-L/16	8029546
				4+PE	A	60V	4A		•		EC-FS5-L/16	8029548
				5	A	60V	4A		•		EC-FS4.5-L/16	8029547
				8	A	30V	2A		•		EC-FS8-L/16	8029551
				12	A	30V	1.5A				EC-FS12-L/16	8029552












		Connecting type	Screw-in thread	Pins	Cod	U[max]	I[max]	Δh[mm]	UL	L [m]	Item description	Item-No.
	Receptacle male, M12x1, straight Front wall-mounting	Wire contact	M16x1.5	3	A	250V	4A		•	0.5	EC-FS3-0,5/16	8027382
				4	A	250V	4A		•	0.5	EC-FS4-0,5/16	8027383
				4+PE	A	60V	4A		•	0.5	EC-FS5-0,5/16	8027393
				5	A	60V	4A		•	0.5	EC-FS4.5-0,5/16	8027394
				8	A	30V	2A		•	0.5	EC-FS8-0,5/16	8028072
				12	A	30V	1.5A			0.5	EC-FS12-0,5/16	8028073
	Receptacle male, M12x1, straight Front wall-mounting Stainless steel	Soldering contact	M16x1.5	3	A	250V	4A		•		EC-FSE3-L/16	8029553
				4	A	250V	4A		•		EC-FSE4-L/16	8029554
				4+PE	A	60V	4A		•		EC-FSE5-L/16	8029556
				5	A	60V	4A		•		EC-FSE4.5-L/16	8029555
				8	A	30V	2A		•		EC-FSE8-L/16	8029557
				12	A	30V	1.5A				EC-FSE12-L/16	8029558
	Receptacle male, M12x1, straight Front wall-mounting Stainless steel	Wire contact	M16x1.5	3	A	250V	4A		•	0.5	EC-FSE3-0,5/16	8028145
				4	A	250V	4A		•	0.5	EC-FSE4-0,5/16	8028147
				4+PE	A	60V	4A		•	0.5	EC-FSE5-0,5/16	8028149
				5	A	60V	4A		•	0.5	EC-FSE4.5-0,5/16	8028148
				8	A	30V	2A		•	0.5	EC-FSE8-0,5/16	8029083
				12	A	30V	1.5A			0.5	EC-FSE12-0,5/16	8029344
	Receptacle male, M12x1, straight Front wall-mounting Adjustable fixing screw	Wire contact	M16x1.5	3	A	250V	4A		•	0.5	EC-FSD3-0,5/16	8027467
				4	A	250V	4A		•	0.5	EC-FSD4-0,5/16	8027469
				4+PE	A	60V	4A		•	0.5	EC-FSD5-0,5/16	8027471
				5	A	60V	4A		•	0.5	EC-FSD4.5-0,5/16	8027470
				8	A	30V	2A		•	0.5	EC-FSD8-0,5/16	8028074
				12	A	30V	1.5A			0.5	EC-FSD12-0,5/16	8028077
	Receptacle female, M12x1, straight Back wall-mounting Adjustable fixing screw	Print contact	M16x1.5	3	A	250V	4A		•		EC-FKFD3-P/16	8029476
				4	A	250V	4A		•		EC-FKFD4-P/16	8029477
				4+PE	A	60V	4A		•		EC-FKFD5-P/16	8029478
				8	A	30V	2A		•		EC-FKFD8-P/16	8029479
				12	A	30V	1.5A				EC-FKFD12-P/16	8029480
					Receptacle female, M12x1, straight Back wall-mounting Adjustable fixing screw	Wire contact	M16x1.5	3	A	250V	4A	
4	A	250V	4A						•	0.5	EC-FKFD4-0,5/16	8027548
4+PE	A	60V	4A						•	0.5	EC-FKFD5-0,5/16	8027550
5	A	60V	4A						•	0.5	EC-FKFD4.5-0,5/16	8027549
8	A	30V	2A						•	0.5	EC-FKFD8-0,5/16	8028120
12	A	30V	1.5A							0.5	EC-FKFD12-0,5/16	8028121

		Connecting type	Screw-in thread	Pins	Cod	U[max]	I[max]	Δh[mm]	UL	L [m]	Item description	Item-No.
	Receptacle female, M12x1, straight Back wall-mounting Adjustable fixing screw Stainless steel	Print contact	M16x1.5	3	A	250V	4A		•		EC-FKFDE3-P/16	8029695
				4	A	250V	4A		•		EC-FKFDE4-P/16	8029508
				4+PE	A	60V	4A		•		EC-FKFDE5-P/16	8029509
				8	A	30V	2A		•		EC-FKFDE8-P/16	8029510
				12	A	30V	1.5A				EC-FKFDE12-P/16	8029512
	Receptacle female, M12x1, straight Back wall-mounting Adjustable fixing screw Stainless steel	Wire contact	M16x1.5	3	A	250V	4A		•	0.5	EC-FKFDE3-0,5/16	8029175
				4	A	250V	4A		•	0.5	EC-FKFDE4-0,5/16	8029176
				4+PE	A	60V	4A		•	0.5	EC-FKFDE5-0,5/16	8029189
				5	A	60V	4A		•	0.5	EC-FKFDE4.5-0,5/16	8029752
				8	A	30V	2A		•	0.5	EC-FKFDE8-0,5/16	8029160
				12	A	30V	1.5A			0.5	EC-FKFDE12-0,5/16	8029700
	Receptacle female, M12x1, angled Back wall-mounting	Print contact		4	A	250V	4A	1.0...2.5	•		EC-WFKF4-P/12/S3525	8050275
				4	A	250V	4A	2.5...4.0	•		EC-WFKF4-P/12/S3540	8050274
				4	A	250V	4A	4.0...5.0	•		EC-WFKF4-P/12/S3550	8045188
				4+PE	A	60V	4A	1.0...2.5	•		EC-WFKF5-P/12/S3525	8050273
				4+PE	A	60V	4A	2.5...4.0	•		EC-WFKF5-P/12/S3540	8050272
				4+PE	A	60V	4A	4.0...5.0	•		EC-WFKF5-P/12/S3550	8050257
	Receptacle male, M12x1, straight Back wall-mounting Adjustable fixing screw	Print contact	M16x1.5	3	A	250V	4A		•		EC-FSFD3-P/16	8029495
				4	A	250V	4A		•		EC-FSFD4-P/16	8029497
				4+PE	A	60V	4A		•		EC-FSFD5-P/16	8029501
				5	A	60V	4A		•		EC-FSFD4.5-P/16	8029499
				8	A	30V	2A		•		EC-FSFD8-P/16	8029503
				12	A	30V	1.5A				EC-FSFD12-P/16	8029505
	Receptacle male, M12x1, straight Back wall-mounting Adjustable fixing screw	Wire contact	M16x1.5	3	A	250V	4A		•	0.5	EC-FSFD3-0,5/16	8027509
				4	A	250V	4A		•	0.5	EC-FSFD4-0,5/16	8027508
				4+PE	A	60V	4A		•	0.5	EC-FSFD5-0,5/16	8027505
				5	A	60V	4A		•	0.5	EC-FSFD4.5-0,5/16	8027506
				8	A	30V	2A		•	0.5	EC-FSFD8-0,5/16	8028080
				12	A	30V	1.5A			0.5	EC-FSFD12-0,5/16	8028554
	Receptacle male, M12x1, straight Back wall-mounting Adjustable fixing screw Stainless steel	Print contact	M16x1.5	3	A	250V	4A		•		EC-FSFDE3-P/16	8029496
				4	A	250V	4A		•		EC-FSFDE4-P/16	8029498
				4+PE	A	60V	4A		•		EC-FSFDE5-P/16	8029502
				8	A	30V	2A		•		EC-FSFDE8-P/16	8029504
				12	A	30V	1.5A				EC-FSFDE12-P/16	8029506
















		Connecting type	Screw-in thread	Pins	Cod	U[max]	I[max]	Δh[mm]	UL	L [m]	Item description	Item-No.	
	Receptacle male, M12x1, straight Back wall-mounting Adjustable fixing screw Stainless steel	Wire contact	M16x1.5	3	A	250V	4A		•	0.5	EC-FSFDE3-0,5/16	8029213	
				4	A	250V	4A		•	0.5	EC-FSFDE4-0,5/16	8029214	
				4+PE	A	60V	4A		•	0.5	EC-FSFDE5-0,5/16	8029216	
				5	A	60V	4A		•	0.5	EC-FSFDE4.5-0,5/16	8029215	
				8	A	30V	2A		•	0.5	EC-FSFDE8-0,5/16	8029158	
				12	A	30V	1.5A			0.5	EC-FSFDE12-0,5/16	8029212	
	Receptacle male, M12x1, angled Back wall-mounting	Print contact		4	A	250V	4A		•		EC-WFSF4-P/12	8046571	
				4+PE	A	60V	4A		•		EC-WFSF5-P/12	8044960	
	Panel connector male, M12x1, straight	Soldering contact		4	A	250V	4A				EWAS4	8008155	
				4+PE	A	60V	4A					EWAS5	8017592
				5	A	60V	4A					EWAS4.5	8008156
				8	A	30V	2A					EWAS8	8009737
				12	A	30V	1.5A					EWAS12	8030496
	Receptacle female, M12x1, straight Food & Beverage Front wall-mounting	Soldering contact	PG9	4	A	250V	4A				FB-FVM12KUA4-L/PG9	8068276	
				5	A	60V	4A					FB-FVM12KUA4.5-L/PG9	8068277
	Receptacle female, M12x1, straight Food & Beverage Front wall-mounting	Wire contact	PG9	4	A	250V	4A			0.5	FB-FVM12KUA4-0,5/PG9	8068278	
				5	A	60V	4A			0.5	FB-FVM12KUA4.5-0,5/PG9	8068279	
	Receptacle male, M12x1, straight Food & Beverage Front wall-mounting	Soldering contact	PG9	4	A	250V	4A				FB-FVM12SUA4-L/PG9	8068272	
				5	A	60V	4A					FB-FVM12SUA4.5-L/PG9	8068273
	Receptacle male, M12x1, straight Food & Beverage Front wall-mounting	Wire contact	PG9	4	A	250V	4A			0.5	FB-FVM12SUA4-0,5/PG9	8068274	
				5	A	60V	4A			0.5	FB-FVM12SUA4.5-0,5/PG9	8068275	
	Receptacle female, M12x1, straight High temperature Front wall-mounting	Wire contact	M16x1.5	3	A	250V	4A			0.5	HT-FK3-0,5/16/S2470	8037311	
				4	A	250V	4A			0.5	HT-FK4-0,5/16/S2470	8037322	
				5	A	60V	4A			0.5	HT-FK4.5-0,5/16/S2470	8037323	
				8	A	30V	2A			0.5	HT-FK8-0,5/16/S2470	8037324	
				12	A	30V	1.5A			0.5	HT-FK12-0,5/16/S2470	8037325	
	Receptacle male, M12x1, straight High temperature Front wall-mounting	Wire contact	M16x1.5	3	A	250V	4A			0.5	HT-FS3-0,5/16/S2470	8037288	
				4	A	250V	4A			0.5	HT-FS4-0,5/16/S2470	8037292	
				5	A	60V	4A			0.5	HT-FS4.5-0,5/16/S2470	8037293	
				8	A	30V	2A			0.5	HT-FS8-0,5/16/S2470	8037294	
				12	A	30V	1.5A			0.5	HT-FS12-0,5/16/S2470	8037295	

		Connecting type	Screw-in thread	Pins	Cod	U[max]	I[max]	Δh[mm]	UL	L [m]	Item description	Item-No.
	Receptacle female, M12x1, straight Industrial Ethernet Front wall-mounting Adjustable fixing screw	Print contact	M16x1.5	4	D	250V	4A		•		IE-FKDY4-P/16	8047944
	Receptacle female, M12x1, straight shielded Industrial Ethernet Front wall-mounting modular Adjustable fixing screw	Print contact	M12x1	8	X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A				IE-FKDHSX8-P/12	8053483
	Receptacle female, M12x1, straight shielded Industrial Ethernet Front wall-mounting Adjustable fixing screw	Print contact	M12x1	8	X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A				IE-FKDSX8-P/12	8050232
	Receptacle female, M12x1, straight Industrial Ethernet Back wall-mounting Adjustable fixing screw	Print contact	M16x1.5	4	D	250V	4A		•		IE-FKFDY4-P/16	8047945
	Receptacle female, M12x1, straight shielded Industrial Ethernet Back wall-mounting modular Adjustable fixing screw	Print contact		8	X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A				IE-FKFDHSX8-P	8053485
	Receptacle female, M12x1, straight shielded Industrial Ethernet Back wall-mounting Adjustable fixing screw	Print contact		8	X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A				IE-FKFDSX8-P	8053484
	Receptacle female, M12x1, angled shielded Industrial Ethernet Back wall-mounting	Print contact		4	D	250V	4A	1.0...2.5			IE-WFKFSY4-P/12/S3525	8050282
				4	D	250V	4A	2.5...4.0			IE-WFKFSY4-P/12/S3540	8050284
				4	D	250V	4A	4.0...5.0			IE-WFKFSY4-P/12/S3550	8050285
	Receptacle female, M12x1, angled shielded Industrial Ethernet Back wall-mounting	Print contact		8	X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A	1.0...2.5			IE-WFKFSX8-P/12/S3525	8059345
				8	X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A	2.5...4.0			IE-WFKFSX8-P/12/S3540	8059346
				8	X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A	4.0...5.0			IE-WFKFSX8-P/12/S3550	8059347
	Receptacle Extension cable female, M12x1, straight Industrial Ethernet Back wall-mounting Adjustable fixing screw	Cable	M16x1.5	4	D	250V	4A			2	IE-FKFDSY4.029-2/16/S2171	8063608
				4	D	250V	4A			5	IE-FKFDSY4.029-5/16/S2171	8063609
				4	D	250V	4A			10	IE-FKFDSY4.029-10/16/S2171	8063610

		Connecting type	Screw-in thread	Pins	Cod	U[max]	I[max]	Δh[mm]	UL	L [m]	Item description	Item-No.
	Receptacle Extension cable female, M12x1, straight Industrial Ethernet Back wall-mounting Adjustable fixing screw	Cable	M16x1.5	4	D	250V	4A			2	IE-FKFDSY4.082-2/16/S3400	8064034
				4	D	250V	4A			5	IE-FKFDSY4.082-5/16/S3400	8064035
				4	D	250V	4A			10	IE-FKFDSY4.082-10/16/S3400	8064036
	Receptacle Extension cable female, M12x1, angled Industrial Ethernet Back wall-mounting Adjustable fixing screw	Cable	M16x1.5	4	D	250V	4A			2	IE-WFKFDSY4.029-2/16/S2171	8063611
				4	D	250V	4A			5	IE-WFKFDSY4.029-5/16/S2171	8063612
				4	D	250V	4A			10	IE-WFKFDSY4.029-10/16/S2171	8063613
	Receptacle female, M12x1, straight Industrial Ethernet Front wall-mounting Adjustable fixing screw	Print contact	M16x1.5	4	D	250V	4A		•		IE-FKDY4-P/16/S38	8055848
	Receptacle Extension cable female, M12x1, straight Industrial Ethernet Front wall-mounting	Cable	M16x1.5	4	D	250V	4A			2	IE-FKSY4.029-2/16/S3800/S3801	8063605
				4	D	250V	4A			5	IE-FKSY4.029-5/16/S3800/S3801	8063606
				4	D	250V	4A			10	IE-FKSY4.029-10/16/S3800/S3801	8063607
	Receptacle female, M12x1, straight Industrial Ethernet Back wall-mounting Adjustable fixing screw	Print contact	M16x1.5	4	D	250V	4A		•		IE-FKFDY4-P/16/S38	8055849
	Receptacle female, M12x1, angled Industrial Ethernet Back wall-mounting	Print contact		4	D	250V	4A	1.0...2.5			IE-WFKFSY4-P/12/S3825	8055850
				4	D	250V	4A	2.5...4.0			IE-WFKFSY4-P/12/S3840	8055851
				4	D	250V	4A	4.0...5.0			IE-WFKFSY4-P/12/S3850	8055852
	Receptacle Extension cable female, M12x1, straight Industrial Ethernet Back wall-mounting Adjustable fixing screw	Cable	M16x1.5	4	D	250V	4A			2	IE-FKFDSY4.029-2/16/S3800/S38	8063599
				4	D	250V	4A			5	IE-FKFDSY4.029-5/16/S3800/S38	8063600
				4	D	250V	4A			10	IE-FKFDSY4.029-10/16/S3800/S38	8063601
	Receptacle Extension cable female, M12x1, angled Industrial Ethernet Back wall-mounting Adjustable fixing screw	Cable	M16x1.5	4	D	250V	4A			2	IE-WFKFDSY4.029-2/16/S3800/S38	8063602
				4	D	250V	4A			5	IE-WFKFDSY4.029-5/16/S3800/S38	8063603
				4	D	250V	4A			10	IE-WFKFDSY4.029-10/16/S3800/S38	8063604
	Receptacle Extension cable female, M12x1, straight Profibus Front wall-mounting	Cable	M16x1.5	5	B	60V	4A		•	2	PB-FKSW2.012-2/16/S1800/S3941	8063621
				5	B	60V	4A		•	5	PB-FKSW2.012-5/16/S1800/S3941	8063622
				5	B	60V	4A		•	10	PB-FKSW2.012-10/16/S1800/S3941	8063623
	Receptacle female, M12x1, angled shielded Profibus Back wall-mounting	Print contact		5	B	60V	4A	1.0...2.5			PB-WFKFSW5-P/12/S3525	8050279
				5	B	60V	4A	2.5...4.0			PB-WFKFSW5-P/12/S3540	8050280
				5	B	60V	4A	4.0...5.0			PB-WFKFSW5-P/12/S3550	8050281

		Connecting type	Screw-in thread	Pins	Cod	U[max]	I[max]	Δh[mm]	UL	L [m]	Item description	Item-No.
	Receptacle male, M12x1, angled shielded Profibus Back wall-mounting	Print contact		5	B	60V	4A				PB-WF5FSW5-P/12	8045658
	Receptacle Extension cable female, M12x1, straight Profibus Back wall-mounting Adjustable fixing screw	Cable	M16x1.5	5	B	60V	4A		•	2	PB-FKFDSW2.012-2/16/S1800	8061882
				5	B	60V	4A		•	5	PB-FKFDSW2.012-5/16/S1800	8063617
				5	B	60V	4A		•	10	PB-FKFDSW2.012-10/16/S1800	8063618
	Receptacle Extension cable female, M12x1, angled Profibus Back wall-mounting Adjustable fixing screw	Cable	M16x1.5	5	B	60V	4A		•	2	PB-WFKFDSW2.012-2/16/S1800	8061881
				5	B	60V	4A		•	5	PB-WFKFDSW2.012-5/16/S1800	8063619
				5	B	60V	4A		•	10	PB-WFKFDSW2.012-10/16/S1800	8063620
	Receptacle female, M12x1, straight CAN open/DeviceNet Front wall-mounting	Wire contact	M16x1.5	5	A	60V	4A			0.5	CD-FK5.022-0,5/16	8047958
	Receptacle male, M12x1, straight CAN open/DeviceNet Front wall-mounting	Wire contact	M16x1.5	5	A	60V	4A			0.5	CD-F55.022-0,5/16	8047960
	Receptacle female, M12x1, straight CAN open/DeviceNet Back wall-mounting Adjustable fixing screw	Wire contact	M16x1.5	5	A	60V	4A			0.5	CD-FKFD5.022-0,5/16	8047961
	Receptacle male, M12x1, straight CAN open/DeviceNet Back wall-mounting Adjustable fixing screw	Wire contact	M16x1.5	5	A	60V	4A			0.5	CD-F5FD5.022-0,5/16	8047962
	Receptacle female, M12x1, straight POWER Front wall-mounting	Wire contact	M16x1.5	2+PE	S	630V	16A			0.2	PS-FVM12K3.031-0,2	8064859
				3+PE	S	630V	12A			0.2	PS-FVM12K4.165-0,2	8067075
	Receptacle male, M12x1, straight POWER Front wall-mounting	Wire contact	M16x1.5	2+PE	S	630V	16A			0.2	PS-FVM12S3.031-0,2	8064858
				3+PE	S	630V	12A			0.2	PS-FVM12S4.165-0,2	8067074
	Receptacle female, M12x1, straight POWER Back wall-mounting	Wire contact	M16x1.5	2+PE	S	630V	16A			0.2	PS-FHM12K3.031-0,2	8064861
				3+PE	S	630V	12A			0.2	PS-FHM12K4.165-0,2	8067077
	Receptacle male, M12x1, straight POWER Back wall-mounting	Wire contact	M16x1.5	2+PE	S	630V	16A			0.2	PS-FHM12S3.031-0,2	8064860
				3+PE	S	630V	12A			0.2	PS-FHM12S4.165-0,2	8067076



		Connecting type	Screw-in thread	Pins	Cod	U[max]	I[max]	Δh[mm]	UL	L [m]	Item description	Item-No.	
	Receptacle female, M12x1, straight POWER Front wall-mounting	Wire contact	M16x1.5	4	T	63V	12A			0.2	PT-FVM12K4-0,2	8064855	
	Receptacle male, M12x1, straight POWER Front wall-mounting	Wire contact	M16x1.5	4	T	63V	12A			0.2	PT-FVM12S4-0,2	8064854	
	Receptacle female, M12x1, straight POWER Back wall-mounting	Wire contact	M16x1.5	4	T	63V	12A			0.2	PT-FHM12K4-0,2	8064857	
	Receptacle male, M12x1, straight POWER Back wall-mounting	Wire contact	M16x1.5	4	T	63V	12A			0.2	PT-FHM12S4-0,2	8064856	
	Receptacle female, M8x1, straight Front wall-mounting	Wire contact		3		60V	4A			0.2	PFKS3-0,2	8008169	
				4		60V	4A			0.2	PFKS4-0,2	8008170	
				5		30V	3A			0.2	PFKS4.5-0,2	8044266	
	Receptacle male, Ø8mm snap, straight Front wall-mounting	Wire contact		3		60V	4A			0.2	PFS3-0,2	8008165	
				4		60V	4A			0.2	PFS4-0,2	8008166	
	Receptacle male, Ø8mm snap, straight Back wall-mounting	Wire contact		3		60V	4A			0.2	PFS3F-0,2	8008167	
				4		60V	4A			0.2	PFS4F-0,2	8008168	
	Panel connector male, Ø8mm snap, straight	Soldering contact		3		60V	4A				SESP3SL	8008157	
				4		60V	4A					SESP4SL	8037479
	Panel connector female, Ø8mm snap, straight	Print contact		3		60V	4A				EKP3SP	8009728	
				4		60V	4A					EKP4SP	8009729
				5		30V	3A					EKP4.5SP	8043797
	Panel connector male, Ø8mm snap, straight	Print contact		4		60V	4A				ESP4SP	8036657	
				5		30V	3A					ESP5SP	8044285
	Panel connector male, Ø8mm snap, straight	Soldering contact		3		60V	4A				ESP3SL	8008163	
				4		60V	4A					ESP4SL	8008164
				5		30V	3A					ESP5SL	8044283
	Panel connector male, Ø8mm snap, straight	Print contact		3		60V	4A				ESHP3P	8008159	
				4		60V	4A					ESHP4P	8008160
	Panel connector male, Ø8mm snap, straight	Soldering contact		3		60V	4A				ESHP3L	8008161	
				4		60V	4A					ESHP4L	8008162
	Panel connector male, Ø8mm snap, straight	Print contact		3		60V	4A				ESGP3P	8008742	
				4		60V	4A					ESGP4P	8008743
	Panel connector male, Ø8mm snap, straight	Soldering contact		3		60V	4A				ESGP3L	8008744	
				4		60V	4A					ESGP4L	8008745

Nomenclature

PB- W WAK C S E W 3- K

Connection K: Screw-terminal | S: Insulation displacement contact | L: Soldering

Pins

Coding

V4A locking mechanism

Shielded

Field-wireable

WAK: M12x1 female | WAS: M12x1 male | KP: M8x1 female | SP: M8x1 male | RJ45S: RJ45 male

W: angled | without: straight

Product line PB: Profinet | IE: Industrial Ethernet | S: M8x1 Screw-type







































Nearly actual size




## Field-wireable connectors

Technical data	M12x1	M12x1 shielded	M8x1	M23x1	RJ45
Insulation resistance	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$
Resistance	$\leq 5 m\Omega$	$\leq 5 m\Omega$	$\leq 5 m\Omega$	$\leq 5 m\Omega$	$\leq 5 m\Omega$
Ambient temperature product	-40°C...+85°C	-40°C...+85°C	-40°C...+85°C	-40°C...+125°C	-40°C...+70°C
Contact material	Metal, gold-plated	Metal, gold-plated	Metal, gold-plated	Metal, CuZn, gold-plated	Metal, gold-plated
Contact-carrier material	Plastic, PA	Plastic, PA	Plastic, PA	Plastic, PBT, GY	Plastic, PA
Grip body material	Plastic	Zinc die-cast, nickel-plated	Plastic	Metal, CuZn, nickel-plated, silver-plated	Plastic
Coupling nut material	Metal, nickel-plated	Metal, nickel-plated	Metal, nickel-plated	Metal, CuZn, nickel-plated	
Standards	IEC 61076-2-101	IEC 61076-2-101	IEC 61076-2-104		IEC 60603-7-5
Degree of protection (mounted)	IP67	IP67	IP67		IP20
Mechanical life-cycle	>100 mating cycles	>100 mating cycles	>100 mating cycles	>100 mating cycles	>750 mating cycles
Degree of pollution	3	3 (8X: 2)	3	3	1

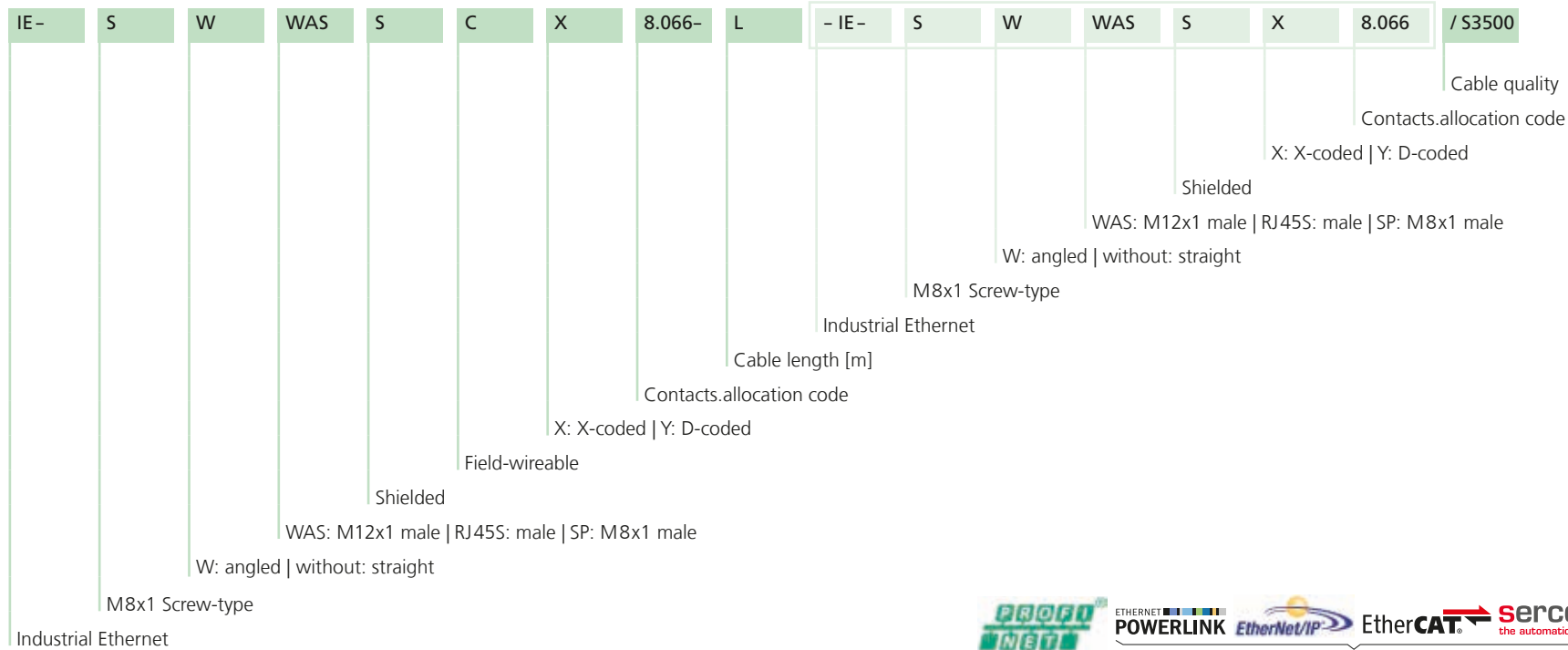
		Body						
		Pins	U[max]	I[max]	Clamping area	Connecting cross-section	Item description	Item-No.
	Connector field-wireable female, M12x1, straight Screw-/clamp contact	4, A	250V	4A	4...6 mm	max. 0.75 mm <sup>2</sup>	WAKC4K	8004811
		5, A	125V	4A	4...6 mm	max. 0.75 mm <sup>2</sup>	WAKC5K	8004815
		8, A	60V	2A	6...8 mm	max. 0.5 mm <sup>2</sup>	WAKC8K	8021862
	Connector field-wireable female, M12x1, straight Screw-/clamp contact Stainless steel	5, A	125V	4A	4...6 mm	max. 0.75 mm <sup>2</sup>	WAKCE5K	8063393
	Connector field-wireable female, M12x1, angled Screw-/clamp contact	4, A	250V	4A	4...6 mm	max. 0.75 mm <sup>2</sup>	WWAKC4K	8004808
		5, A	125V	4A	4...6 mm	max. 0.75 mm <sup>2</sup>	WWAKC5K	8004809
		8, A	30V	2A	6...8 mm	max. 0.25 mm <sup>2</sup>	WWAKC8K	8041146
	Connector field-wireable female, M12x1, angled Screw-/clamp contact Stainless steel	5, A	125V		4...6 mm	max. 0.75 mm <sup>2</sup>	WWAKCE5K	8063395
	Connector field-wireable male, M12x1, straight Screw-/clamp contact	4, A	250V	4A	6...8 mm	max. 0.75 mm <sup>2</sup>	WASC4K	8004804
		5, A	125V	4A	4...6 mm	max. 0.75 mm <sup>2</sup>	WASC5K	8004805
		8, A	60V	2A	6...8 mm	max. 0.5 mm <sup>2</sup>	WASC8K	8021863
	Connector field-wireable male, M12x1, straight Screw-/clamp contact Stainless steel	5, A	125V	4A	4...6 mm	max. 0.75 mm <sup>2</sup>	WASCE5K	8063394
	Connector field-wireable male, M12x1, angled Screw-/clamp contact	4, A	250V	4A	4...6 mm	max. 0.75 mm <sup>2</sup>	WWASC4K	8004806
		5, A	125V	4A	4...6 mm	max. 0.75 mm <sup>2</sup>	WWASC5K	8004807
		8, A	30V	2A	6...8 mm	max. 0.75 mm <sup>2</sup>	WWASC8K	8052219
	Connector field-wireable male, M12x1, angled Screw-/clamp contact Stainless steel	5, A	125V	4A	4...6 mm	max. 0.75 mm <sup>2</sup>	WWASCE5K	8063396
	Connector field-wireable female, M12x1, straight Insulation displacement contact	3, A	32V	4A	2.9...5.1 mm	0.14...0.34 mm <sup>2</sup>   AWG26...22	WAKC3S	8019714
		4, A	32V	4A	0.14...0.34 mm <sup>2</sup>   AWG26...22	0.14...0.34mm <sup>2</sup>   AWG26...22	WAKC4S	8019718
	Connector field-wireable female, M12x1, angled Insulation displacement contact	4, A	32V	4A	4...5.1 mm	max. 0.5 mm <sup>2</sup>	WWAKC4S	8019719
	Connector field-wireable male, M12x1, straight Insulation displacement contact	3, A	32V	4A	2.9...5.1mm	0.14...0.34 mm <sup>2</sup>   AWG26...22	WASC3S	8019712
		4, A	32V	4A	2.9... 5.1 mm	0.14...0.34 mm <sup>2</sup>   AWG26...22	WASC4S	8019716

		Body						
		Pins	U[max]	I[max]	Clamping area	Connecting cross-section	Item description	Item-No.
	Connector field-wireable male, M12x1, angled Insulation displacement contact	4, A	32V	4A	4...5.1mm	max. 0.5 mm <sup>2</sup>	WWASC4S	8019717
	Connector field-wireable female, M12x1, straight Soldering contact	12, A	30V	1A	6...8 mm	max. 0.25 mm <sup>2</sup>	WAKC12L	8031858
	Connector field-wireable female, M12x1, angled Soldering contact	12, A	30V	2A	6...8 mm	max. 0.25 mm <sup>2</sup>	WWAKC12L	8031859
	Connector field-wireable male, M12x1, straight Soldering contact	12, A	30V	2A	6...8 mm	max. 0.25 mm <sup>2</sup>	WASC12L	8031860
	Connector field-wireable male, M12x1, angled Soldering contact	12, A	30V	2A	6...8 mm	max. 0.25 mm <sup>2</sup>	WWASC12L	8031861
	Connector field-wireable female, M12x1, straight shielded Screw-/clamp contact	4, A	250V	4A	5...8 mm	max. 0.75 mm <sup>2</sup>	WAKCS4K	8068908
		5, A	125V	4A	5...8 mm	max. 0.75 mm <sup>2</sup>	WAKCS5K	8068910
		8, A	60V	2A	6...8 mm	max. 0.75 mm <sup>2</sup>	WAKCS8K	8035193
	Connector field-wireable male, M12x1, straight shielded Screw-/clamp contact	4, A	250V	4A	5...8 mm	max. 0.75 mm <sup>2</sup>	WAKCS4K	8068909
		5, A	60V	4A	5...8 mm		WASCS5K	8068911
		8, A	60V	2A	6...8 mm	max. 0.5 mm <sup>2</sup>	WASCS8K	8035192
	Connector field-wireable female, M12x1, straight shielded Soldering contact	12, A	30V	2A	6...8 mm	max. 0.25 mm <sup>2</sup>	WAKCS12L	8052220
	Connector field-wireable male, M12x1, straight shielded Soldering contact	12, A	30V	2A	6...8 mm	max. 0.25 mm <sup>2</sup>	WASCS12L	8037435
	Connector field-wireable male, M12x1, straight shielded Insulation displacement contact	4, D	250V	4A	5...9.7 mm	AWG 26/1 - AWG 22/1, AWG 26/7 - AWG 22/7	IE-WASCSY4S	8065954
		8, X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A	5...9.7 mm	AWG 24/1 - AWG 22/1, AWG 26/7 - AWG 22/7	IE-WASCSX8S	8050231
	Connector field-wireable female, M12x1, straight shielded Screw-/clamp contact	5, B	125V	4A	6.5...8.5 mm	max. 0.75 mm <sup>2</sup>	PB-WAKCSW4.5K	8031376

		Body						
		Pins	U[max]	I[max]	Clamping area	Connecting cross-section	Item description	Item-No.
	Connector field-wireable female, M12x1, angled shielded Screw-/clamp contact	5, B	125V	4A	6...8 mm	max. 0.75 mm <sup>2</sup>	PB-WWAKCSW4.5K	8040235
	Connector field-wireable male, M12x1, straight shielded Screw-/clamp contact	5, B	125V	4A	5...8 mm	max. 0.75 mm <sup>2</sup>	PB-WASCSW4.5K	8031375
	Connector field-wireable male, M12x1, angled shielded Screw-/clamp contact	5, B	125V	4A	6...8 mm	max. 0.75 mm <sup>2</sup>	PB-WWASCSW4.5K	8040236
	Connector field-wireable female, M12x1, straight Screw-/clamp contact	4, S	630V	12A	8...10 mm	1.50 mm <sup>2</sup>	PS-WAKC4K	8063400
		4, T	63V	12A	8...10 mm	1.50 mm <sup>2</sup>	PT-WAKC4K	8063398
	Connector field-wireable male, M12x1, straight Screw-/clamp contact	4, S	630V	12A	8...10 mm	1.50 mm <sup>2</sup>	PS-WASC4K	8063399
		4, T	63V	12A	8...10 mm	1.50 mm <sup>2</sup>	PT-WASC4K	8063397
	Connector field-wireable male, Dou sealed, M12x1, straight Screw-/clamp contact	4, A	250V	4A	2 cables Ø 2.1-3 mm or Ø 4-5 mm	0.75 mm <sup>2</sup> / AWG18	FSMC4K	8017231
		5, A	125V	4A	2 cables Ø 2.1-3 mm or Ø 4-5 mm	0.75 mm <sup>2</sup> / AWG18	FSMC5K	8032825
	Connector field-wireable female, M8x1, straight Screw-/clamp contact	3	60V	4A	3.5...5 mm	max. 0,5 mm <sup>2</sup>	SKPC3K	8004833
		4	30V	4A	3.5...5 mm	max. 0.5 mm <sup>2</sup>	SKPC4K	8004834
	Connector field-wireable male, M8x1, straight Screw-/clamp contact	3	60V	4A	3.5...5 mm	max. 0.5 mm <sup>2</sup>	SSPC3K	8004831
		4	30V	4A	3.5...5 mm	max. 0.5 mm <sup>2</sup>	SSPC4K	8004832
	Connector field-wireable female, M8x1, straight Insulation displacement contact	3	32V	4A	2.5...5.1 mm	0.14...0.34 mm <sup>2</sup>   AWG26...22	SKPC3S	8019721
		4	32V	4A	2.5...5.1 mm	0.14...0.34 mm <sup>2</sup>   AWG26...22	SKPC4S	8019723
	Connector field-wireable male, M8x1, straight Insulation displacement contact	3	32V	4A	2.5...5.1 mm	0.14...0.34 mm <sup>2</sup>   AWG26...22	SSPC3S	8019720
		4	32V	4A	2.5...5.1 mm	0.14...0.34 mm <sup>2</sup>   AWG26...22	SKPC4S	8019722
	Connector field-wireable female, M8x1, angled Soldering contact	3	32V	4A	3.5...5 mm	0.14...0.34 mm <sup>2</sup>   AWG26...22	SWKPC3L	8017351
		4	30V	4A	3.5...5 mm	max. 0.25 mm <sup>2</sup>	SWKPC4L	8017364
	Connector field-wireable male, M8x1, angled Soldering contact	3	60V	4A	3.5...5 mm	max. 0.25 mm <sup>2</sup>	SWSPC3L	8017365
		4	30V	4A	3.5...5 mm	max. 0.25 mm <sup>2</sup>	SWSPC4L	8017366

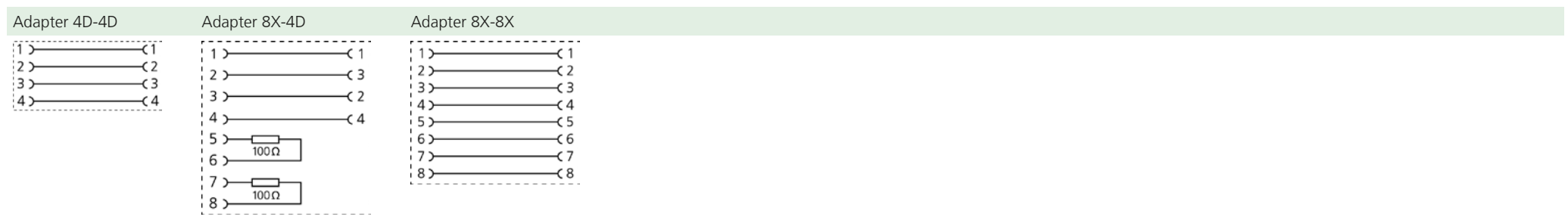
		Body						
		Pins	U[max]	I[max]	Clamping area	Connecting cross-section	Item description	Item-No.
	Connector field-wireable female, M23x1, straight Soldering contact	12	150V	8A* 4A**	8...12 mm	contacts 10,11,12*: 0.75...1.0mm <sup>2</sup> others**: 0.5...0.75mm <sup>2</sup>	MKCC12L	8013694
		19	125V	10A* 4A**	10...14 mm	contacts 9,12,19*: 0.75...1.0mm <sup>2</sup> others**: 0.5...0.75mm <sup>2</sup>	MKCC19L	8013696
	Connector field-wireable female, M23x1, angled Soldering contact	12	150V	8A* 4A**	8...12 mm	contacts* 10,11,12: 0.75...1.0mm <sup>2</sup> others**: 0.5...0.75mm <sup>2</sup>	WMKCC12L	8017153
		19	125V	10A* 4A**	10...14 mm	contacts* 9,12,19: 0.75...1.0mm <sup>2</sup> others**: 0.5...0.75mm <sup>2</sup>	WMKCC19L	8017151
	Connector field-wireable male, RJ45, straight Insulation displacement contact	8	50V	1A	5,5...10,5 mm	AWG27/7 – AWG22/7 AWG26/1 – AWG22/1	IE-RJ45SCS8	8065955

Nomenclature of patched connectors

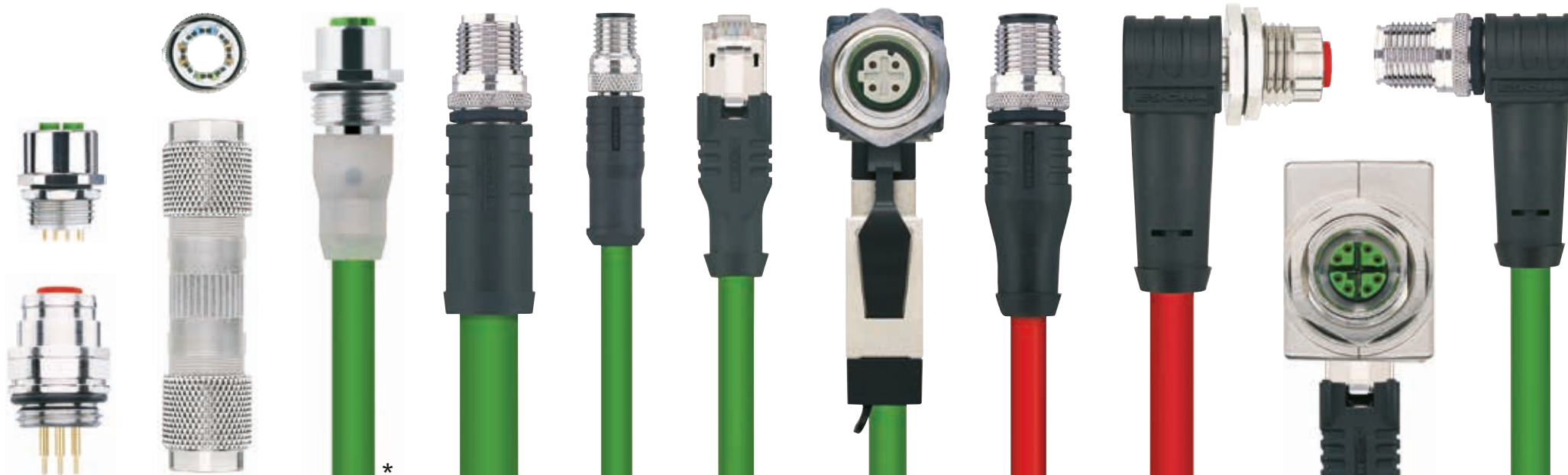


Industrial Ethernet

Cable	Short description
S3500   PUR	Flexible PUR/PE data-cable Industrial Ethernet CAT 7 for medium stresses. Halogen-free, flameretardant, medium drag-chain capability. Good oil- and chemical resistant, UL-style
S3800   PUR	Flexible PUR/PE data-cable Industrial Ethernet CAT 6A for medium stresses. Halogen-free, flameretardant, medium drag-chain capability. Good oil- and chemical resistant, UL-style.
S2171   PUR	Flexible PUR/PE data-cable Industrial Ethernet CAT 5e for medium stresses. Halogen-free, flameretardant, medium drag-chain capability. Good oil- and chemical resistant, UL-style.
S3400   PUR	Flexible PUR/PE data-cable Industrial Ethernet CAT 5e for medium stresses. Halogen-free, flameretardant, medium drag-chain capability. Good oil- and chemical resistant, UL-style.
















Nearly actual size










## Industrial Ethernet

Technical data	M12x1	M8x1	RJ45	Receptacle
Insulation resistance	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$
Resistance	$\leq 5 m\Omega$	$\leq 5 m\Omega$	$\leq 5 m\Omega$	$\leq 5 m\Omega$
Ambient temperature product	-30°C...+90°C	-30°C...+90°C	-40°C...+70°C	-30°C...+90°C (*+70°C)
Contact material	Metal, gold-plated	Metal, gold-plated	Metal, gold-plated	Metal, gold-plated
Contact-carrier material	Plastic, TPU	Plastic, PA	Plastic, PC	Plastic
Grip body material	Plastic, TPU	Plastic, TPU	Plastic, TPE	Plastic, TPU
Coupling nut material	Metal, nickel-plated	Metal, nickel-plated		
Sealing (female) material				FPM/FKM
Material of external sealing				NBR
Receptacle housing material				Metal, CuZn, nickel-plated
Standards	IEC 61076-2-101/-109	IEC 61076-2-104	IEC 60603-7-5	IEC 61076-2-101/-109
Degree of protection (mounted)	IP65, IP67, IP68	IP65, IP67, IP68	IP20	IP65, IP67, IP68
Mechanical life-cycle	>100 mating cycles	>100 mating cycles	>1000 mating cycles	>100 mating cycles
Degree of pollution	2	3/2	1	3/2









Industrial Ethernet components from ESCHA are adapted to the specifications of the corresponding user organizations. 4-pole/D-coded or 8-pole/X-coded M12x1 connectivity solutions as well as receptacles, interface-components and industrial suited RJ45 patch cords enable to setup a high-quality Ethernet infrastructure. Our 360°-shielding with the patented ESCHA two-shell shielding-concept (2SSK) ensures a safe and dependable data transmission (Cat5e, Cat6A).

		Body				Cable			Item description	L = cable length*		
		Pins	U[max]	l[max]	Δh[mm]	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
	Extension cable male, M12x1, straight shielded Cat5e	4, D	250V	4A		PUR	GN	•	IE-WASSY4.029-L/S2171	8031449	8031450	8031451
				4A		PUR	GN	•	IE-WASSY4.082-L/S3400	8056566	8056567	8056568
	Extension cable male, M12x1, angled shielded Cat5e	4, D	250V	4A		PUR	GN	•	IE-WWASSY4.029-L/S2171	8044087	8041940	8044088
				4A		PUR	GN	•	IE-WWASSY4.082-L/S3400	8056569	8056570	8056571
	Connector field-wireable male, M12x1, straight shielded Cat5e Insulation displacement contact	4, D	250V	4A					IE-WASCSY4S	8065954		
	Extension cable male, RJ45, straight shielded Cat5e	4	50V	1A		PUR	GN	•	IE-RJ45SS4.003-L/S2171	8062329	8062330	8062331
				1A		PUR	GN	•	IE-RJ45SS8.005-L/S3400	8056581	8056582	8056583
	Connector field-wireable male, RJ45, straight Cat6A Insulation displacement contact	8	50V	1A					IE-RJ45SCS8	8065955		
	Receptacle female, M12x1, straight Cat5e Print contact Front wall-mounting	4, D	250V	4A					IE-FKDY4-P/16	8047944		
	Receptacle Extension cable female, M12x1, straight shielded Cat5e Cable Front wall-mounting	4, D	250V	4A		PUR	GN	•	IE-FKSY4.029-L/16/S2171/S3941	8063614	8063615	8063616
	Receptacle female, M12x1, straight Cat5e Print contact Back wall-mounting	4, D	250V	4A					IE-FKDY4-P/16	8047945		
	Receptacle female, M12x1, angled shielded Cat5e Print contact Back wall-mounting	4, D	250V	4A	1.0...2.5				IE-WFKFSY4-P/12/S3525	8050282		
				4A	2.5...4.0				IE-WFKFSY4-P/12/S3540	8050284		
				4A	4.0...5.0				IE-WFKFSY4-P/12/S3550	8050285		

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

		Body				Cable			UL	Item description	L = cable length*		
		Pins	U[max]	I[max]	Δh[mm]	Material	Color	2m / 1m			5m / 2m	10m / 5m	
	Receptacle Extension cable female, M12x1, straight shielded Cat5e Cable Back wall-mounting	4, D	250V	4A	PUR	GN	•	IE-FKFDSY4.029-L/16/S2171	8063608	8063609	8063610		
				4A	PUR	GN	•	IE-FKFDSY4.082-L/16/S3400	8064034	8064035	8064036		
	Receptacle Extension cable female, M12x1, angled shielded Cat5e Cable Back wall-mounting	4, D	250V	4A	PUR	GN	•	IE-WFKFDSY4.029-L/16/S2171	8063611	8063612	8063613		
	Extension cable male, M8x1, straight shielded Cat5e	4	30V	4A	PUR	GN	•	IE-SSPS4.027-L/S3400	8055529	8055530	8055531		
	Extension cable male, M8x1, angled shielded Cat5e	4	30V	4A	PUR	GN	•	IE-SWSPS4.027-L/S3400	8055789	8055790	8055791		
	Connection cable male, M12x1, straight shielded Cat5e	4, D 4, D	250V	4A	PUR	GN	•	IE-WASSY4.029-L-IE-WASSY4.029/S2171	8031558	8031560	8031561		
				4A	PUR	GN	•	IE-WASSY4.082-L-IE-WASSY4.082/S3400	8056557	8056558	8056559		
	Connection cable male, M12x1, straight shielded Cat5e	4, D 4	50V	1A	PUR	GN	•	IE-WASSY4.029-L-IE-RJ45SS4.003/S2171	8061081	8061082	8061083		
				1A	PUR	GN	•	IE-WASSY4.082-L-IE-RJ45SS8.005/S3400	8056572	8056573	8056574		
	Connection cable male, M12x1, straight shielded Cat5e	4, D 4	60V	4A	PUR	GN	•	IE-WASSY4.082-L-IE-SSPS4.027/S3400	8055552	8055553	8055554		
				4A	PUR	GN	•	IE-WASSY4.082-L-IE-SSPS4.027/S3400	8055552	8055553	8055554		
	Receptacle Connection cable female, M12x1, straight shielded Cat5e	4, D	50V	1A	PUR	GN	•	IE-FKFDSY4.029-L-IE-RJ45SS4.003/S2171	8064023	8064024	8064025		
				1A	PUR	GN	•	IE-FKFDSY4.082-L-IE-RJ45SS8.005/S3400	8060876	8063625	8063626		
	Receptacle Connection cable female, M12x1, angled shielded Cat5e	4, D	50V	1A	PUR	GN	•	IE-WFKFDSY4.082-L-IE-RJ45SS8.005/S3400	8069853	8069854	8069855		




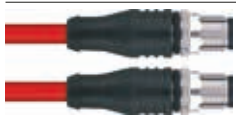
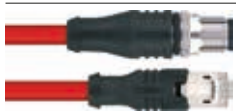



\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

		Body				Cable			L = cable length*			
		Pins	U[max]	l[max]	Δh[mm]	Material	Color	UL	Item description	2m / 1m	5m / 2m	10m / 5m
	Connection cable male, M12x1, angled shielded Cat5e	4, D	250V	4A		PUR	GN	•	IE-WWASSY4.029-L-IE-WASSY4.029/S2171	8046398	8044089	8044090
	Connection cable male, M12x1, straight shielded Cat5e	4, D		4A		PUR	GN	•	IE-WWASSY4.082-L-IE-WASSY4.082/S3400	8056563	8056564	8056565
	Connection cable male, M12x1, angled shielded Cat5e	4, D	50V	1A		PUR	GN	•	IE-WWASSY4.029-L-IE-RJ45SS4.003/S2171	8062317	8062318	8062319
	Connection cable male, RJ45, straight shielded Cat5e	4		1A		PUR	GN	•	IE-WWASSY4.082-L-IE-RJ45SS8.005/S3400	8056575	8056576	8056577
	Connection cable male, M12x1, angled shielded Cat5e	4, D	250V	4A		PUR	GN	•	IE-WWASSY4.029-L-IE-WWASSY4.029/S2171	8046893	8036902	8036903
	Connection cable male, M12x1, angled shielded Cat5e	4, D		4A		PUR	GN	•	IE-WWASSY4.082-L-IE-WWASSY4.082/S3400	8056560	8056561	8056562
	Connection cable male, RJ45, straight shielded Cat5e	4	50V	1A		PUR	GN	•	IE-RJ45SS4.003-L-IE-RJ45SS4.003/S2171	8062323	8062324	8062325
	Connection cable male, RJ45, straight shielded Cat5e	4		1A		PUR	GN	•	IE-RJ45SS8.005-L-IE-RJ45SS8.005/S3400	8056578	8056579	8056580
	Connection cable female, M8x1, straight shielded Cat5e	4	60V	4A		PUR	GN	•	IE-SKPS4.027-L-IE-SSPS4.027/S3400	8055535	8055537	8055538
	Connection cable male, M8x1, straight shielded Cat5e	4		4A		PUR	GN	•	IE-SSPS4.027-L-IE-SSPS4.027/S3400	8055532	8055533	8055534
	Connection cable male, M8x1, straight shielded Cat5e	4	50V	1A		PUR	GN	•	IE-SSPS4.027-L-IE-RJ45SS8.005/S3400	8055536	8055539	8055540
	Connection cable male, RJ45, straight shielded Cat5e	4		4A		PUR	GN	•	IE-SWSPS4.027-L-IE-SSPS4.027/S3400	8055795	8055796	8055797










\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

		Body				Cable			UL	Item description	L = cable length*		
		Pins	U[max]	I[max]	Δh[mm]	Material	Color	2m / 1m			5m / 2m	10m / 5m	
	Connection cable male, M8x1, angled male, M8x1, angled shielded Cat5e	4 4	60V	4A		PUR	GN	•	IE-SWSPS4.027-L-IE-SWSPS4.027/S3400	8055801	8055802	8055804	
	Extension cable male, M12x1, straight shielded Cat5e	4, D	250V	4A		PUR	RD	•	IE-WASSY4.029-L/S3800	8055493	8055494	8055495	
	Extension cable male, M12x1, angled shielded Cat5e	4, D	250V	4A		PUR	RD	•	IE-WWASSY4.029-L/S3800	8055499	8055500	8055501	
	Connector field-wireable male, M12x1, straight shielded Cat5e Insulation displacement contact	4, D	250V	4A					IE-WASCSY4S	8065954			
	Extension cable male, RJ45, straight shielded Cat5e	4	50V	1A		PUR	RD	•	IE-RJ45SS4.003-L/S3800	8062332	8062333	8062334	
	Connector field-wireable male, RJ45, straight Cat6A Insulation displacement contact	8	50V	1A					IE-RJ45SCS8	8065955			
	Receptacle female, M12x1, straight Cat5e Print contact Front wall-mounting	4, D	250V	4A					IE-FKDY4-P/16/S38	8055848			
	Receptacle Extension cable female, M12x1, straight shielded Cat5e Cable Front wall-mounting	4, D	250V	4A		PUR	RD	•	IE-FKSY4.029-L/16/S3800/S3801	8063605	8063606	8063607	
	Receptacle female, M12x1, straight Cat5e Print contact Back wall-mounting	4, D	250V	4A					IE-FKFDY4-P/16/S38	8055849			









\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

		Body				Cable			Item description	L = cable length*		
		Pins	U[max]	I[max]	Δh[mm]	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
	Receptacle female, M12x1, angled shielded Cat5e Print contact Back wall-mounting	4, D	250V	4A	1.0...2.5				IE-WFKFSY4-P/12/S3825	8055850		
				4A	2.5...4.0				IE-WFKFSY4-P/12/S3840	8055851		
				4A	4.0...5.0				IE-WFKFSY4-P/12/S3850	8055852		
	Receptacle Extension cable female, M12x1, straight shielded Cat5e Cable Back wall-mounting	4, D	250V	4A		PUR	RD	•	IE-FKFDYSY4.029-L/16/S3800/S38	8063599	8063600	8063601
	Receptacle Extension cable female, M12x1, angled shielded Cat5e Cable Back wall-mounting	4, D	250V	4A		PUR	RD	•	IE-WFKFDYSY4.029-L/16/S3800/S38	8063602	8063603	8063604
	Connection cable male, M12x1, straight shielded Cat5e	4, D 4, D	250V	4A		PUR	RD	•	IE-WASSY4.029-L-IE-WASSY4.029/S3800	8055496	8055497	8055498
	Connection cable male, M12x1, straight shielded Cat5e	4, D 4	50V	1A		PUR	RD	•	IE-WASSY4.029-L-IE-RJ45SS4.003/S3800	8061084	8061085	8061086
	Receptacle Connection cable female, M12x1, straight shielded Cat5e	4, D	50V	1A		PUR	RD	•	IE-FKFDYSY4.029-L-IE-RJ45SS4.003/S3800	8064026	8064027	8064028
	Connection cable male, M12x1, angled shielded Cat5e	4, D 4, D	250V	4A		PUR	RD	•	IE-WWASSY4.029-L-IE-WASSY4.029/S3800	8055502	8055503	8055504
	Connection cable male, M12x1, angled shielded Cat5e	4, D 4	50V	1A		PUR	RD	•	IE-WWASSY4.029-L-IE-RJ45SS4.003/S3800	8062320	8062321	8062322

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.









		Body				Cable			Item description	L = cable length*		
		Pins	U[max]	I[max]	Δh[mm]	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
	Connection cable male, M12x1, angled male, M12x1, angled shielded Cat5e	4, D 4, D	250V	4A		PUR	RD	•	IE-WWASSY4.029-L-IE-WWASSY4.029/S3800	8055505	8055506	8055507
	Connection cable male, RJ45, straight male, RJ45, straight shielded Cat5e	4 4	50V	1A		PUR	RD	•	IE-RJ45SS4.003-L-IE-RJ45SS4.003/S3800	8062326	8062327	8062328
	Adapter female, M12x1, straight female, M12x1, straight shielded Cat5e	4, D 4, D	250V	4A					IE-WAKSY4-IE-WAKSY4	8065952		
	Adapter female, M12x1, straight female, M12x1, straight shielded Cat5e	8, X 4, D	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A					IE-WAKSX8-IE-WAKSY4	8065950		
	Panel feed through female, M12x1, straight female, RJ45, straight Cat5e Back wall-mounting	4, D 8	50V <sub>AC/DC</sub>	0.2A					IE-FKFDYSY4-RJ45KS	8057085		
	Panel feed through female, M12x1, angled female, RJ45, straight Cat5e Back wall-mounting	4, D 8	50V <sub>AC/DC</sub>	0.2A					IE-WFKFDYSY4-RJ45KS	8057086		
	Extension cable male, M12x1, straight shielded Cat6A	8, X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A		PUR	GN	•	IE-WASSX8.066-L/S3500	8049457	8049458	8049459
	Extension cable male, M12x1, angled shielded Cat6A	8, X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A		PUR	GN	•	IE-WWASSX8.066-L/S3500	8055441	8055442	8055443
	Extension cable male, RJ45, straight shielded Cat6A	8	50V	1A		PUR	GN	•	IE-RJ45SS8.002-L/S3500	8052214	8052215	8052216

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.




		Body				Cable			L = cable length*			
		Pins	U[max]	I[max]	Δh[mm]	Material	Color	UL	Item description	2m / 1m	5m / 2m	10m / 5m
	Connector field-wireable male, RJ45, straight Cat6A Insulation displacement contact	8	50V	1A					IE-RJ45SCS8	8065955		
	Receptacle female, M12x1, straight shielded Cat6A Print contact Front wall-mounting	8, X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A					IE-FKDSX8-P/12	8050232		
	Receptacle female, M12x1, straight shielded Cat6A Print contact Front wall-mounting modular	8, X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A					IE-FKDHSX8-P/12	8053483		
	Receptacle female, M12x1, straight shielded Cat6A Print contact Back wall-mounting	8, X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A					IE-FKFDSX8-P	8053484		
	Receptacle female, M12x1, straight shielded Cat6A Print contact Back wall-mounting modular	8, X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A					IE-FKFDHSX8-P	8053485		
	Receptacle female, M12x1, angled shielded Cat6A Print contact Back wall-mounting	8, X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A	1.0...2.5				IE-WFKFSX8-P/12/S3525	8059345		
0.5A				2.5...4.0					IE-WFKFSX8-P/12/S3540	8059346		
0.5A				4.0...5.0					IE-WFKFSX8-P/12/S3550	8059347		
	Receptacle female, M12x1, straight shielded Cat6A Print contact Insert connector	8, X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A					IE-EKSX8P	8050233		
	Receptacle Extension cable female, M12x1, straight shielded Cat6A Cable Back wall-mounting	8, X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A		PUR	GN	•	IE-FKFDX8.066-L/S3500	8061148	8061149	8061150

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.



		Body				Cable				L = cable length*		
		Pins	U[max]	I[max]	Δh[mm]	Material	Color	UL	Item description	2m / 1m	5m / 2m	10m / 5m
	Connection cable male, M12x1, straight male, M12x1, straight shielded Cat6A	8, X 8, X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A		PUR	GN	•	IE-WASSX8.066-L-IE-WASSX8.066/S3500	8048865	8049460	8049461
	Connection cable male, M12x1, straight male, RJ45, straight shielded Cat6A	8, X 8	50V	0.5A		PUR	GN	•	IE-WASSX8.066-L-IE-RJ45SS8.002/S3500	8053444	8053288	8053289
	Receptacle Connection cable female, M12x1, straight male, M12x1, straight Cat6A	8, X 8, X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A		PUR	GN	•	IE-FKFDXS8.066-L-IE-WASSX8.066/S3500	8061289	8061290	8061291
	Receptacle Connection cable female, M12x1, straight male, RJ45, straight shielded Cat6A	8, X 8	50V	0.5A		PUR	GN	•	IE-FKFDXS8.066-L-IE-RJ45SS8.002/S3500	8061295	8061296	8061297
	Connection cable male, M12x1, angled male, M12x1, straight shielded Cat6A	8, X 8, X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A		PUR	GN	•	IE-WWASSX8.066-L-IE-WASSX8.066/S3500	8055444	8055445	8055446
	Connection cable male, M12x1, angled male, RJ45, straight shielded Cat6A	8, X 8	50V	0.5A		PUR	GN	•	IE-WWASSX8.066-L-IE-RJ45SS8.002/S3500	8055447	8055448	8055449
	Connection cable male, RJ45, straight male, RJ45, straight shielded Cat6A	8 8	50V	1A		PUR	GN	•	IE-RJ45SS8.002-L-IE-RJ45SS8.002/S3500	8052205	8048829	8048830
	Adapter female, M12x1, straight female, M12x1, straight shielded Cat6A	8, X 8, X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A					IE-WAKSX8-IE-WAKSX8	8065951		

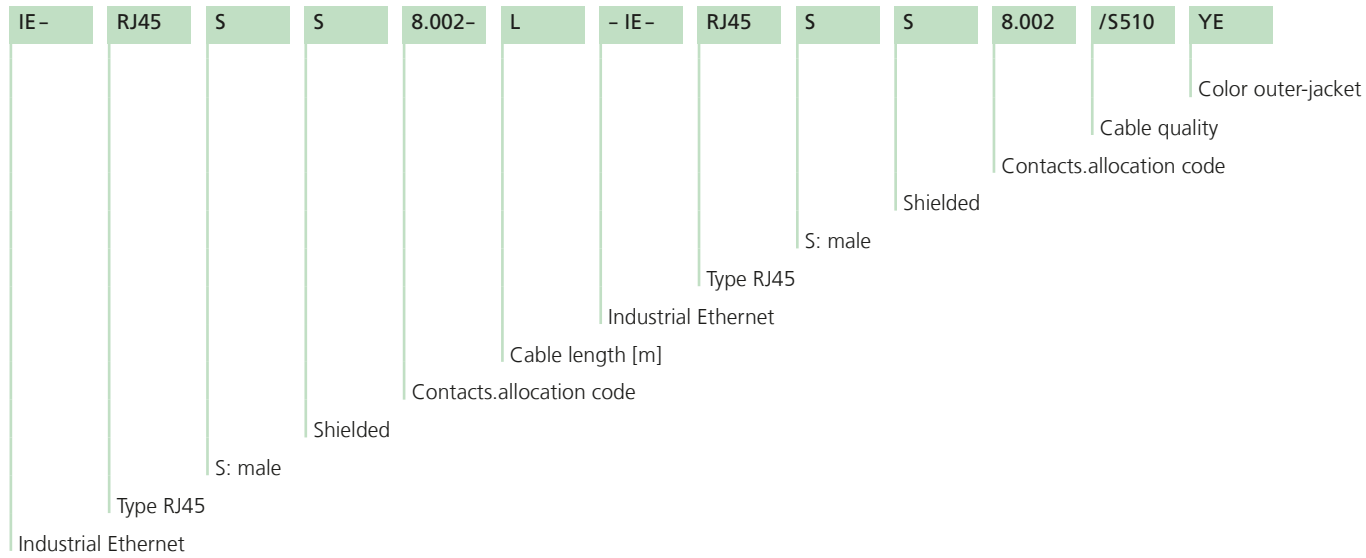
\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

	Body				Cable			Item description	L = cable length*		
	Pins	U[max]	I[max]	Δh[mm]	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
 <p>Panel feed through female, M12x1, angled female, RJ45, straight shielded Cat6A Back wall-mounting</p>	8, X 8	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A					IE-WFKFDSX8-RJ45KS	8055774		
 <p>Panel feed through female, M12x1, straight female, RJ45, straight shielded Cat6A Back wall-mounting</p>	8, X 8	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A					IE-FKFDSX8-RJ45KS	8055773		
 <p>Wiring connector Cat7 Insulation displacement contact</p>	8, X	50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A					IE-LVCS8	8055776		

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.



Nomenclature



Cable	Short description
S510   PVC	Flexible PVC/PE patch cord Industrial Ethernet CAT 5e for medium stresses.
S610   LSZH/FRNC	Flexible FRNC/PE patch cord Industrial Ethernet CAT 7 for medium stresses. Halogen-free and flameretardant.



Nearly actual size

## RJ45 patch cords

Technical data	RJ45
Insulation resistance	$\geq 10^8 \Omega$
Resistance	$\leq 5 m\Omega$
Ambient temperature product	-40°C...+70°C
Contact material	Metal, CuZn, gold-plated
Contact-carrier material	Plastic, PC, transparent
Grip body material	Plastic, TPE, BK
Standards	IEC 60603-7-5
Degree of protection (mounted)	IP20
Mechanical life-cycle	>1000 mating cycles
Degree of pollution	1

Our RJ45 patch cords are adapted for industrial applications as well as a structured building wiring. We have launched two product lines: one with PVC-cable quality for Cat5e-applications and another with FRNC-cable quality for Cat6A-applications respectively including four-pair AWG26-cables. The RJ45 patch cords are IP20 tested.

				L = cable length							
		Color	Item description	0.3m	0.5m	1m	2m	5m	7.5m	10m	12.5m
	Connection cable Cat5e male, RJ45, straight male, RJ45, straight	GY	IE-RJ45SS8.002-L-IE-RJ45SS8.002/S510GY	8068494	8068495	8068496	8068497	8068499	8068501	8068502	8068503
	Connection cable Cat5e male, RJ45, straight male, RJ45, straight	RD	IE-RJ45SS8.002-L-IE-RJ45SS8.002/S510RD	8068540	8068541	8068542	8068543	8068545	8068546	8068547	8068548
	Connection cable Cat5e male, RJ45, straight male, RJ45, straight	YE	IE-RJ45SS8.002-L-IE-RJ45SS8.002/S510YE	8068524	8068525	8068526	8068527	8068529	8068530	8068531	8068532
	Connection cable Cat5e male, RJ45, straight male, RJ45, straight	BU	IE-RJ45SS8.002-L-IE-RJ45SS8.002/S510BU	8068556	8068557	8068558	8068559	8068560	8068561	8068562	8068563
	Connection cable Cat5e male, RJ45, straight male, RJ45, straight	GN	IE-RJ45SS8.002-L-IE-RJ45SS8.002/S510GN	8068571	8068572	8068573	8068574	8068576	8068577	8068578	8068579
	Connection cable Cat6A male, RJ45, straight male, RJ45, straight	BK	IE-RJ45SS8.002-L-IE-RJ45SS8.002/S610BK	8068605	8068606	8068607	8068608	8068610	8068611	8068612	8068613
	Connection cable Cat6A male, RJ45, straight male, RJ45, straight	GY	IE-RJ45SS8.002-L-IE-RJ45SS8.002/S610GY	8068587	8068589	8068590	8068588	8068593	8068595	8068596	8068597
	Connection cable Cat6A male, RJ45, straight male, RJ45, straight	RD	IE-RJ45SS8.002-L-IE-RJ45SS8.002/S610RD	8068638	8068639	8068640	8068641	8068643	8068645	8068644	8068646
	Connection cable Cat6A male, RJ45, straight male, RJ45, straight	YE	IE-RJ45SS8.002-L-IE-RJ45SS8.002/S610YE	8068620	8068621	8068622	8068623	8068625	8068633	8068626	8068634
	Connection cable Cat6A male, RJ45, straight male, RJ45, straight	BU	IE-RJ45SS8.002-L-IE-RJ45SS8.002/S610BU	8068653	8068654	8068655	8068656	8068658	8068659	8068660	8068661
	Connection cable Cat6A male, RJ45, straight male, RJ45, straight	GN	IE-RJ45SS8.002-L-IE-RJ45SS8.002/S610GN	8068672	8068673	8068674	8068675	8068677	8068678	8068679	8068680



Nomenclature

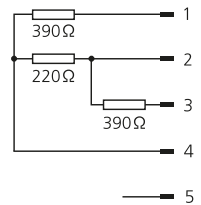
Connection cable															
PB-	W	WAK	S	W	2.012-	L	- PB-	W	WAS	S	W	2.012	16	/S1800	/S3525
			Shielded	D-coded	Contacts.allocation code	L: Cable length, Wire-length [m]   P: Print contact with receptacles	Profibus	W: angled   without: straight	WAS: M12x1 male	Shielded	D-coded	Contacts.allocation code		Cable quality	Extra: e.g wall-thickness compensation or colored contact-carrier
	W: angled   without: straight	WAK: M12x1 female   WAS: M12x1 male   FK: M12x1 female receptacle front-wall mounting   FK(F): M12x1 female receptacle front-wall mounting (adjustable)   FK(D): M12x1 female receptacle back-wall mounting (adjustable)													
Profibus															



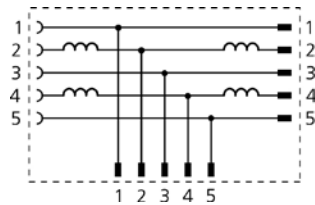
Cable Short description

S1800 | PUR Flexible PUR/PE data-cable PROFIBUS for medium stresses. Halogen-free, flame retardant, medium drag-chain capability. Good oil- and chemical resistant, UL-style.

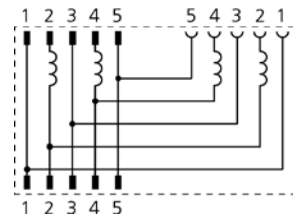
Termination connector



T-splitter shielded



Y-splitter shielded


















Nearly actual size

## Profibus











Technical data	Connector+Termination connector	Receptacle	Splitter	Field-wireable
Insulation resistance	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$
Resistance	$\leq 5 m\Omega$	$\leq 5 m\Omega$	$\leq m\Omega$	$\leq 5 m\Omega$
Ambient temperature product	-30°C...+90°C	-30°C...+90°C (*+70°C )	-30°C...+90°C	-40°C...+85°C
Contact material	Metal, CuZn, gold-plated	Metal, gold-plated	Metal, gold-plated	Metal, gold-plated
Contact-carrier material	Plastic, TPU, BK	Plastic, TPU, VT	Plastic, TPU	Plastic, PA
Grip body material	Plastic, TPU, BK	Plastic, TPU	Plastic, TPU	Zinc die-cast, nickel-plated
Coupling nut material	Metal, CuZn, nickel-plated			Metal, nickel-plated
Sealing (female) material	FPM/FKM	FPM/FKM	FPM/FKM	FPM/FKM
Material of external sealing		NBR		
Receptacle housing material		Metal, CuZn, nickel-plated		
Standards	IEC 61076-2-101	IEC 61076-2-101	IEC 61076-2-101/-104	IEC 61076-2-101
Degree of protection (mounted)	IP65, IP67, IP68	IP65, IP67, IP68	IP65, IP67, IP68	IP67
Mechanical life-cycle	>100 mating cycles	>100 mating cycles	>100 mating cycles	>100 mating cycles
Degree of pollution	3	3	3	3
Clamping area				see page 69/70
Connecting cross-section				max. 0.75mm <sup>2</sup>

The connectors used in fieldbus technology have to meet bus-specific requirements. We have developed a product line which meets the requirements of the PROFIBUS/PROFINET user organization (PNO): 5 pins/B-coded connectors, receptacles, T-junctions and Y-junctions with 360°-shielding.



		Body				Cable				L = cable length*		
		Pins	U[max]	I[max]	Δh[mm]	Material	Color	UL	Item description	2m / 1m	5m / 2m	10m / 5m
	Extension cable female, M12x1, straight shielded	5, B	60V	4A		PUR	VT	•	PB-WAKSW2.012-L/S1800	8043866	8043868	8043869
	Extension cable female, M12x1, angled shielded	5, B	60V	4A		PUR	VT	•	PB-WWAKSW2.012-L/S1800	8043870	8043871	8043872
	Extension cable male, M12x1, straight shielded	5, B	60V	4A		PUR	VT	•	PB-WASSW2.012-L/S1800	8043873	8043874	8043875
	Extension cable male, M12x1, angled shielded	5, B	60V	4A		PUR	VT	•	PB-WWASSW2.012-L/S1800	8043876	8043877	8043878
	Receptacle Extension cable female, M12x1, straight shielded Cable Front wall-mounting	5, B	60V	4A		PUR	VT	•	PB-FKSW2.012-L/16/S1800/S3941	8063621	8063622	8063623
	Receptacle Extension cable female, M12x1, straight shielded Cable Back wall-mounting	5, B	60V	4A		PUR	VT	•	PB-FKFDSW2.012-L/16/S1800	8061882	8063617	8063618
	Receptacle Extension cable female, M12x1, angled shielded Cable Back wall-mounting	5, B	60V	4A		PUR	VT	•	PB-WFKFDSW2.012-L/16/S1800	8061881	8063619	8063620
	Receptacle female, M12x1, angled shielded	5, B	60V	4A	1.0...2.5				PB-WFKFSW5-P/12/S3525	8050279		
	Print contact			4A	2.5...4.0				PB-WFKFSW5-P/12/S3540	8050280		
	Back wall-mounting			4A	4.0...5.0				PB-WFKFSW5-P/12/S3550	8050281		
	Receptacle male, M12x1, angled shielded Print contact Back wall-mounting	5, B	60V	4A					PB-WFSFSW5-P/12	8045658		
	Connection cable female, M12x1, straight shielded	5, B	60V	4A		PUR	VT	•	PB-WAKSW2.012-L-PB-WASSW2.012/S1800	8045613	8043867	8043879
												

Profibus

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

		Body				Cable			UL	Item description	L = cable length*		
		Pins	U[max]	I[max]	Δh[mm]	Material	Color	2m / 1m			5m / 2m	10m / 5m	
	Connection cable female, M12x1, straight male, M12x1, angled shielded	5, B	60V	4A	PUR	VT	•	PB-WAKSW2.012-L-PB-WWASSW2.012/S1800	8051935	8043884	8043885		
													
	Connection cable female, M12x1, angled male, M12x1, straight shielded	5, B	60V	4A	PUR	VT	•	PB-WWAKSW2.012-L-PB-WASSW2.012/S1800	8046479	8043881	8043882		
													
	Connection cable female, M12x1, angled male, M12x1, angled shielded	5, B	60V	4A	PUR	VT	•	PB-WWAKSW2.012-L-PB-WWASSW2.012/S1800	8051936	8043887	8043888		
													
	Connector field-wireable female, M12x1, straight shielded Screw-/clamp contact	5, B	125V	4A				PB-WAKCSW4.5K	8031376				
	Connector field-wireable female, M12x1, angled shielded Screw-/clamp contact	5, B	125V	4A				PB-WWAKCSW4.5K	8040235				
	Connector field-wireable male, M12x1, straight shielded Screw-/clamp contact	5, B	125V	4A				PB-WASCSW4.5K	8031375				
	Connector field-wireable male, M12x1, angled shielded Screw-/clamp contact	5, B	125V	4A				PB-WWASCSW4.5K	8040236				
	Termination connector male, M12x1, straight	5, B	60V	4A				PB-WASSW4.5-AS	8043520				

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

	Body				Cable		UL	Item description	L = cable length*		
	Pins	U[max]	I[max]	$\Delta h$ [mm]	Material	Color			2m / 1m	5m / 2m	10m / 5m
 Y-splitter shielded	5, B	60V	4A					PB-Y-WASSW5-WASSW5-WAKSW5	8057724		
 T-splitter shielded	5, B	60V	4A					PB-T-WAKSW5-WASSW5-WASSW5	8057719		







Nearly actual size

## CANopen | DeviceNet


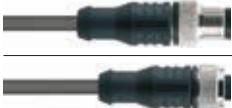









Technical data	Connector+Termination connector	Receptacle	T-Splitter	Field-wireable
Insulation resistance	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$
Resistance	$\leq 5 m\Omega$	$\leq 5 m\Omega$		$\leq 5 m\Omega$
Ambient temperature product	-30°C...+90°C	-30°C...+90°C	-30°C...+90°C	-40°C...+85°C
Contact material	Metal, CuZn, gold-plated	Metal, gold-plated	Metal, gold-plated	Metal, CuZn, CuSnZn
Contact-carrier material	Plastic, TPU, BK	Plastic, TPU, BK	Plastic, TPU	Plastic, PA, BK
Grip body material	Plastic, TPU, BK		Plastic, TPU	Plastic, PA, BK
Coupling nut material	Metal, CuZn, nickel-plated		Metal, CuZn, nickel-plated	Metal, nickel-plated
Sealing (female) material	FPM/FKM	FPM/FKM	FPM/FKM	
Material of external sealing		NBR		
Receptacle housing material		Metal, CuZn, nickel-plated		
Standards	IEC 61076-2-101	IEC 61076-2-101	IEC 61076-2-101	IEC 61076-2-101
Degree of protection (mounted)	IP65, IP67, IP68	IP65, IP67, IP68	IP65, IP67, IP68	IP67
Mechanical life-cycle	>100 mating cycles	>100 mating cycles	>100 mating cycles	>100 mating cycles
Degree of pollution	3	3	3	3
Clamping area				4...6mm
Connecting cross-section				max. 0.75mm <sup>2</sup>

The ODVA user organization asks for 5 pins M12x1 connectors and receptacles with shielded cables in PUR halogen-free, twisted-pair for signals and supply voltage with stranded drain wire. Of course, our UL-admitted 'thin-cable' components meet these requirements. Furthermore, we offer M12x1 terminating resistors (male and female) with 120Ω.

		Body				Cable			UL	Item description	L = cable length*		
		Pins	U[max]	I[max]	Special	Material	Color	2m / 1m			5m / 2m	10m / 5m	
	Extension cable female, M12x1, straight	5, A	60V	4A		PUR	BK	•	CD-WAK5.022-L/S2800	8047517	8047518	8047519	
	Extension cable female, M12x1, angled	5, A	60V	4A		PUR	BK	•	CD-WWAK5.022-L/S2800	8047520	8047521	8047522	
	Connector field-wireable female, M12x1, angled Screw-/clamp contact	5, A	125V	4A					WAKC5K	8004815			
	Connector field-wireable female, M12x1, angled Screw-/clamp contact	5, A	125V	4A					WWAKC5K	8004809			
	Receptacle female, M12x1, straight Wire contact Front wall-mounting	5, A	60V	4A					CD-FK5.022-0,5/16	8047958			
	Receptacle female, M12x1, straight Wire contact Back wall-mounting	5, A	60V	4A					CD-FKFD5.022-0,5/16	8047961			
	Extension cable male, M12x1, straight	5, A	60V	4A		PUR	BK	•	CD-WAS5.022-L/S2800	8047523	8047524	8047525	
	Extension cable male, M12x1, angled	5, A	60V	4A		PUR	BK	•	CD-WWAS5.022-L/S2800	8047526	8047527	8047528	
	Connector field-wireable male, M12x1, straight Screw-/clamp contact	5, A	125V	4A					WASC5K	8004805			
	Connector field-wireable male, M12x1, angled Screw-/clamp contact	5, A	125V	4A					WWASC5K	8004807			
	Receptacle male, M12x1, straight Wire contact Front wall-mounting	5, A	60V	4A					CD-FS5.022-0,5/16	8047960			
	Receptacle male, M12x1, straight Wire contact Back wall-mounting	5, A	60V	4A					CD-FSFD5.022-0,5/16	8047962			

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.



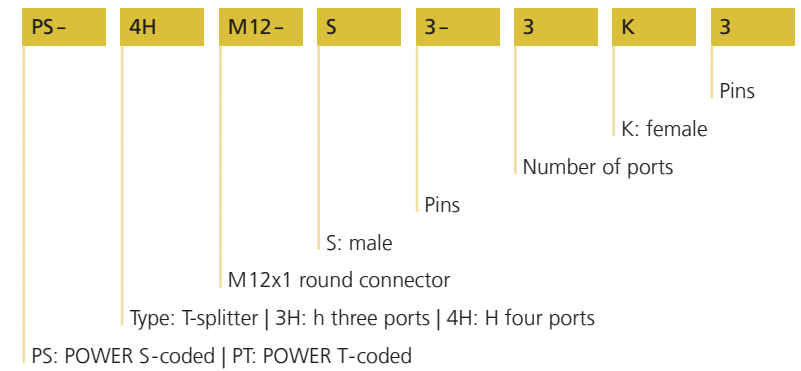
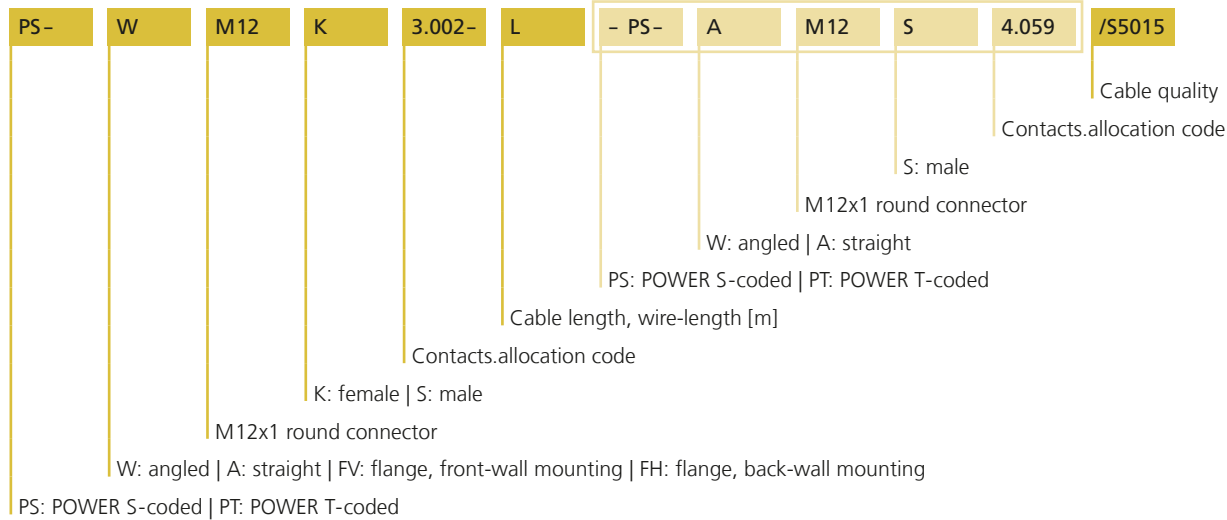
		Body				Cable			UL	Item description	L = cable length*		
		Pins	U[max]	I[max]	Special	Material	Color	2m / 1m			5m / 2m	10m / 5m	
	Connection cable female, M12x1, straight	5, A	60V	4A		PUR	BK	•	CD-WAK5.022-L-CD-WAS5.022/S2800	8047491	8047492	8047494	
	Connection cable male, M12x1, straight												
	Connection cable female, M12x1, straight	5, A	60V	4A		PUR	BK	•	CD-WAK5.022-L-CD-WWAS5.022/S2800	8051938	8047532	8047533	
	Connection cable male, M12x1, angled												
	Connection cable female, M12x1, angled	5, A	60V	4A		PUR	BK	•	CD-WWAK5.022-L-CD-WAS5.022/S2800	8051937	8047529	8047530	
	Connection cable male, M12x1, straight												
	Connection cable female, M12x1, angled	5, A	60V	4A		PUR	BK	•	CD-WWAK5.022-L-CD-WWAS5.022/S2800	8051939	8047535	8047536	
	Connection cable male, M12x1, angled												
	Termination plugs female, M12x1, straight	5, A	60V	4A					CD-WAK2.010-AK/S3234	8047942			
	Termination plugs male, M12x1, straight	5, A	60V	4A					CD-WAS2.010-AS/S3234	8047943			
	T-splitter	5, A	60V	4A					FKM5-FKM5-FSM5/S222	8035172			

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

Nomenclature of patched connectors, receptacles

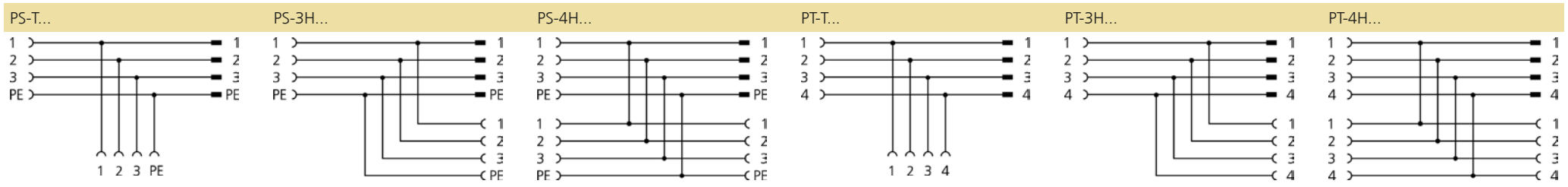
Connection cable

Nomenclature of POWER junctions



**Cable**      **Short description**

S5015   PUR	Flexible PUR/PP power-cable for high mechanical stresses. Halogen-free, flame retardant, high drag-chain capability, oil- and chemical resistant, UL-style. Wire cross-section 1,5 mm <sup>2</sup> .
S5025   PUR	Flexible PUR/PP power-cable for high mechanical stresses. Halogen-free, flame retardant, high drag-chain capability, oil- and chemical resistant, UL-style. Wire cross-section 2,5mm <sup>2</sup> .



M12x1 POWER













Nearly actual size












## M12x1 POWER

Technical data	Connector	Receptacle	T-, h-, H-splitter	Field-wireable
Insulation resistance	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$
Resistance	$\leq 5 \text{ m}\Omega$	$\leq 5 \text{ m}\Omega$	$\leq 5 \text{ m}\Omega$	$\leq 3 \text{ m}\Omega$
Ambient temperature product	-30°C...+90°C	-40°C...+85°C	-30°C...+90°C	-30°C...+90°C
Contact material	Metal, CuZn, gold-plated	Metal, gold-plated	Metal, gold-plated	Metal, gold-plated
Contact-carrier material	Plastic, PA, BK	Plastic, PA	Plastic, PA, BK	Plastic, PA
Grip body material	Plastic, TPU, BK	Plastic, TPU	Plastic, TPU	Plastic, PA
Coupling nut material	Metal, CuZn, nickel-plated	Metal, nickel-plated		
Sealing (female) material	FPM/FKM			
Receptacle housing material		Zinc die-cast, nickel-plated		
Standards	IEC 61076-2-111		IEC 61076-2-101	IEC 61076-2-111
Degree of protection (mounted)	IP65, IP67, IP68	IP67	IP65, IP67, IP68	IP67
Mechanical life-cycle	>100 mating cycles	>100 mating cycles	>100 mating cycles	>100 mating cycles
Degree of pollution	2	3	2	3
Clamping area				8...10mm
Connecting cross-section				1.50mm <sup>2</sup>
















M12x1 POWER from ESCHA stands for a reliable power transmission via the standardized M12x1-interface. Devices with S-coding (AC-applications up to 630V) and T-coding (DC-applications up to 63V) transmit currents up to 12A. A broad product range with extension- and connection cables as well as H-, h-, and T-junctions facilitates a serial wiring structure at field level. The connection cross-section up to 2.5 mm<sup>2</sup> of all M12x1 POWER products is a unique feature. In contrast to small cross-sections, this feature enables a large extension of power distribution and – especially in case of DC-distribution – a slight voltage drop.

		Body					Cable			UL	Item description	L = cable length*		
		Pins	U[max]	I[max]	Cod	Material	Color	2m / 1m	5m / 2m			10m / 5m		
	Extension cable female, M12x1, straight	2+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S	PUR	BK	•	PS-AM12K3.002-L/S5015	8064011	8064012	8064013		
		3+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S	PUR	BK	•	PS-AM12K4.155-L/S5015	8068091	8068092	8068093		
	Extension cable female, M12x1, angled	2+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S	PUR	BK	•	PS-WM12K3.002-L/S5015	8064014	8064015	8064016		
		3+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S	PUR	BK	•	PS-WM12K4.155-L/S5015	8068095	8068096	8068097		
	Extension cable male, M12x1, straight	2+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S	PUR	BK	•	PS-AM12S3.002-L/S5015	8064017	8064018	8064019		
		3+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S	PUR	BK	•	PS-AM12S4.155-L/S5015	8068098	8068106	8068107		
	Extension cable male, M12x1, angled	2+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S	PUR	BK	•	PS-WM12S3.002-L/S5015	8064020	8064021	8064022		
		3+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S	PUR	BK	•	PS-WM12S4.155-L/S5015	8068108	8068109	8068110		
	Connection cable female, M12x1, straight	2+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S	PUR	BK	•	PS-AM12K3.002-L-PS-AM12S3.002/S5015	8063999	8064000	8064001		
		3+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S	PUR	BK	•	PS-AM12K4.155-L-PS-AM12S4.155/S5015	8068297	8068131	8068132		
	Connection cable female, M12x1, straight	2+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S	PUR	BK	•	PS-AM12K3.002-L-PS-WM12S3.002/S5015	8064002	8064003	8064004		
		3+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S	PUR	BK	•	PS-AM12K4.155-L-PS-WM12S4.155/S5015	8068298	8068134	8068135		
	Connection cable female, M12x1, angled	2+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S	PUR	BK	•	PS-AM12K3.002-L-PS-WM12S3.002/S5015	8064002	8064003	8064004		
		3+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S	PUR	BK	•	PS-AM12K4.155-L-PS-WM12S4.155/S5015	8068298	8068134	8068135		
	Connection cable female, M12x1, angled	2+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S	PUR	BK	•	PS-WM12K3.002-L-PS-AM12S3.002/S5015	8064008	8064009	8064010		
		3+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S	PUR	BK	•	PS-WM12K4.155-L-PS-AM12S4.155/S5015	8068301	8068140	8068141		
	Connection cable female, M12x1, angled	2+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S	PUR	BK	•	PS-WM12K3.002-L-PS-WM12S3.002/S5015	8064005	8064006	8064007		
		3+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S	PUR	BK	•	PS-WM12K4.155-L-PS-WM12S4.155/S5015	8068299	8068137	8068138		
	Receptacle female, M12x1, straight	2+PE	630V	16A	S				PS-FVM12K3.031-0,2	8064859				
		3+PE	630V	12A	S				PS-FVM12K4.165-0,2	8067075				
	Wire contact Front wall-mounting													






\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

		Body				Cable			UL	Item description	L = cable length*		
		Pins	U[max]	I[max]	Cod	Material	Color	2m / 1m			5m / 2m	10m / 5m	
	Receptacle female, M12x1, straight Wire contact Back wall-mounting	2+PE	630V	16A	S					PS-FHM12K3.031-0,2	8064861		
		3+PE	630V	12A	S					PS-FHM12K4.165-0,2	8067077		
	Receptacle male, M12x1, straight Wire contact Front wall-mounting	2+PE	630V	16A	S					PS-FVM12S3.031-0,2	8064858		
		3+PE	630V	12A	S					PS-FVM12S4.165-0,2	8067074		
	Receptacle male, M12x1, straight Wire contact Back wall-mounting	2+PE	630V	16A	S					PS-FHM12S3.031-0,2	8064860		
		3+PE	630V	12A	S					PS-FHM12S4.165-0,2	8067076		
	Connector field-wireable female, M12x1, straight Screw-/clamp contact	4	630V	12A	S					PS-WAKC4K	8063400		
	Connector field-wireable male, M12x1, straight Screw-/clamp contact	4	630V	12A	S					PS-WASC4K	8063399		
	T-splitter	3+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S					PS-TM12-S4-LK4	8062858		
	h-splitter	3+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S					PS-3HM12-S4-LK4	8062859		
	H-splitter	3+PE	630V <sub>AC</sub>   600V <sub>AC</sub> (UL)	12A	S					PS-4HM12-S4-3K4	8062860		
	Extension cable female, M12x1, straight	4	63V	12A	T	PUR	BK	•		PT-AM12K4-L/S5015	8063986	8063987	8063988
				12A	T	PUR	BK	•		PT-AM12K4-L/S5025	8063962	8063963	8063964
	Extension cable female, M12x1, angled	4	63V	12A	T	PUR	BK	•		PT-WM12K4-L/S5015	8063989	8063990	8063991
				12A	T	PUR	BK	•		PT-WM12K4-L/S5025	8063965	8063966	8063967
	Extension cable male, M12x1, straight	4	63V	12A	T	PUR	BK	•		PT-AM12S4-L/S5015	8063992	8063993	8063994
				12A	T	PUR	BK	•		PT-AM12S4-L/S5025	8063968	8063969	8063970

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

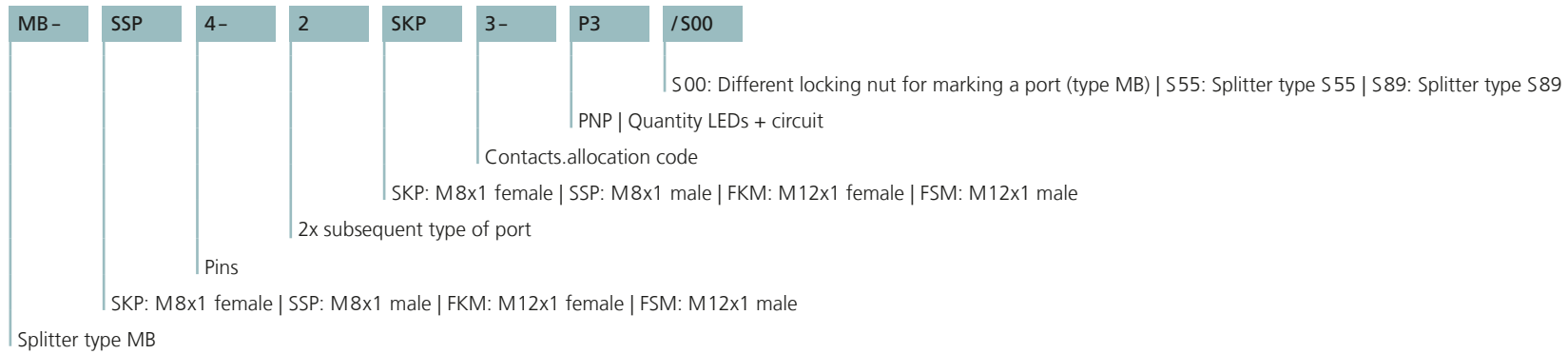
		Body				Cable			UL	Item description	L = cable length*		
		Pins	U[max]	I[max]	Cod	Material	Color	2m / 1m			5m / 2m	10m / 5m	
	Extension cable male, M12x1, angled	4	63V	12A	T	PUR	BK	•	PT-WM12S4-L/S5015	8063998	8063997	8063995	
				12A	T	PUR	BK		PT-WM12S4-L/S5025	8063971	8063972	8063973	
	Connection cable female, M12x1, straight	4	63Vdc	12A	T	PUR	BK	•	PT-AM12K4-L-PT-AM12S4/S5015	8063974	8063975	8063976	
				12A	T	PUR	BK		PT-AM12K4-L-PT-AM12S4/S5025	8063950	8063951	8063952	
	Connection cable female, M12x1, straight	4	63Vdc	12A	T	PUR	BK	•	PT-AM12K4-L-PT-AM12S4/S5015	8063977	8063978	8063979	
				12A	T	PUR	BK		PT-AM12K4-L-PT-WM12S4/S5025	8063953	8063954	8063955	
	Connection cable female, M12x1, angled	4	63Vdc	12A	T	PUR	BK	•	PT-AM12K4-L-PT-WM12S4/S5015	8063977	8063978	8063979	
				12A	T	PUR	BK		PT-AM12K4-L-PT-WM12S4/S5025	8063953	8063954	8063955	
	Connection cable female, M12x1, angled	4	63Vdc	12A	T	PUR	BK	•	PT-WM12K4-L-PT-AM12S4/S5015	8063983	8063984	8063985	
				12A	T	PUR	BK		PT-WM12K4-L-PT-AM12S4/S5025	8063959	8063960	8063961	
	Connection cable female, M12x1, straight	4	63Vdc	12A	T	PUR	BK	•	PT-WM12K4-L-PT-AM12S4/S5015	8063983	8063984	8063985	
				12A	T	PUR	BK		PT-WM12K4-L-PT-AM12S4/S5025	8063959	8063960	8063961	
	Connection cable female, M12x1, angled	4	63Vdc	12A	T	PUR	BK	•	PT-WM12K4-L-PT-WM12S4/S5015	8063980	8063981	8063982	
				12A	T	PUR	BK		PT-WM12K4-L-PT-WM12S4/S5025	8063956	8063957	8063958	
	Receptacle female, M12x1, straight	4	63V	12A	T				PT-FVM12K4-0,2	8064855			
	Wire contact Front wall-mounting												
	Receptacle female, M12x1, straight	4	63V	12A	T				PT-FHM12K4-0,2	8064857			
	Wire contact Back wall-mounting												
	Receptacle male, M12x1, straight	4	63V	12A	T				PT-FVM12S4-0,2	8064854			
	Wire contact Front wall-mounting												
	Receptacle male, M12x1, straight	4	63V	12A	T				PT-FHM12S4-0,2	8064856			
	Wire contact Back wall-mounting												

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

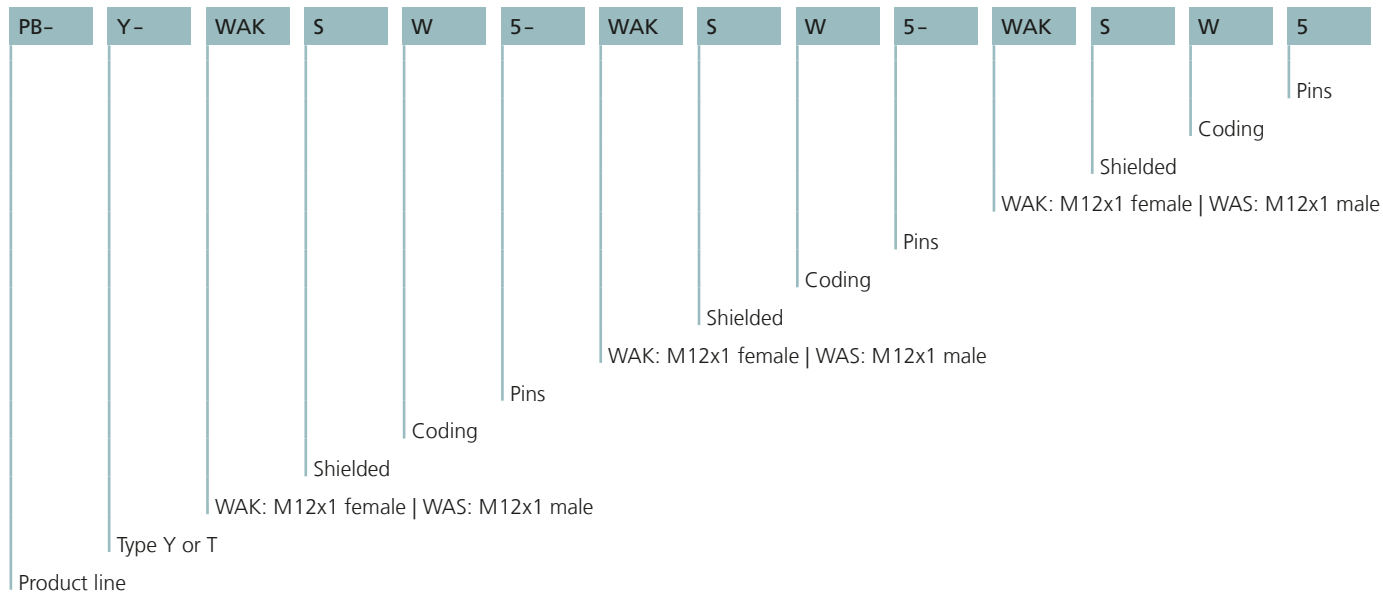
		Body				Cable			UL	Item description	L = cable length*		
		Pins	U[max]	I[max]	Cod	Material	Color	2m / 1m			5m / 2m	10m / 5m	
	Connector field-wireable female, M12x1, straight Screw-/clamp contact	4	63V	12A	T					PT-WAKC4K	8063398		
	Connector field-wireable male, M12x1, straight Screw-/clamp contact	4	63V	12A	T					PT-WASC4K	8063397		
	T-splitter	4	63V	12A	T					PT-TM12-S4-LK4	8067897		
	h-splitter	4	63V	12A	T					PT-3HM12-S4-LK4	8067900		
	H-splitter	4	63V	12A	T					PT-4HM12-S4-3K4	8067903		

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

Nomenclature of 2-way splitters with identical ports



Nomenclature of 2-way splitters with different ports







T shielded



Y



S89



MB\_M12x1



MB\_M12x1 shielded



S55




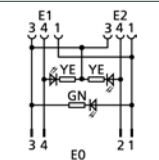

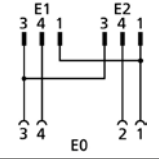

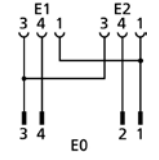

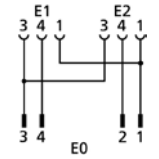

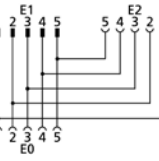

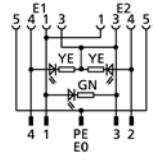

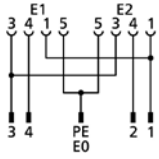

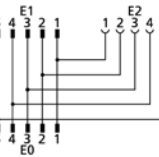
MB\_M8x1


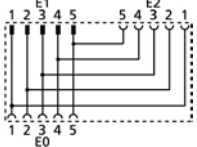

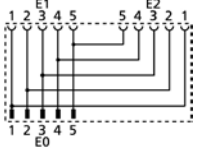

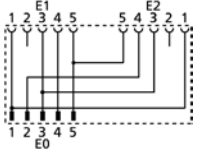

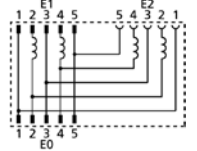

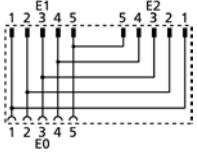

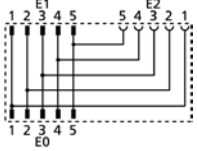

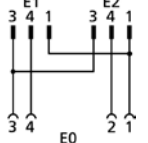

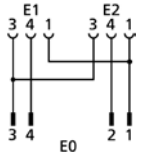
Nearly actual size


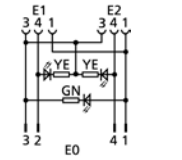

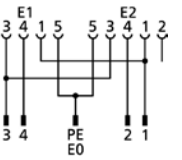

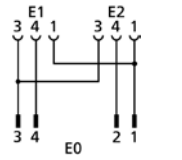

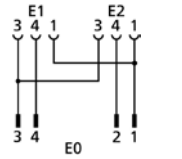

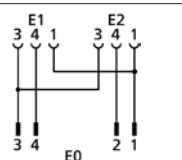

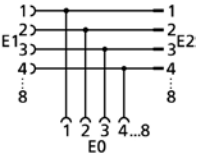

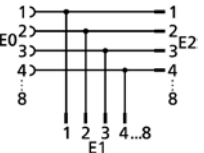
## 2-way splitters


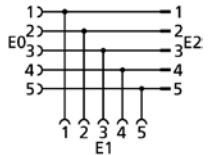

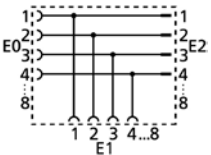

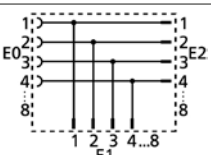

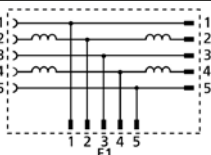

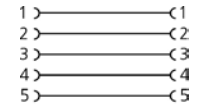

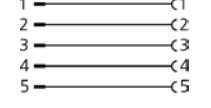



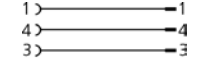
Technical data	Y-splitter	T-splitter	Adapter	Panel feed through
Insulation resistance	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$
Ambient temperature product	-30°C...+90°C	-30°C...+90°C	-30°C...+90°C	-25°C...+85°C
Contact material	Metal, gold-plated	Metal, gold-plated	Metal	Metal, gold-plated
Contact-carrier material	Plastic, TPU	Plastic, TPU	Plastic, PA	Plastic
Grip body material	Plastic, TPU	Plastic, TPU	Plastic, TPU	
Sealing (female) material	Plastic, TPU	FPM/FKM	Plastic, TPU	
Standards	IEC 61076-2-101/-104	IEC 61076-2-101		IEC 61076-2-101
Degree of protection (mounted)	IP65, IP67, IP68	IP65, IP67, IP68	IP65, IP67, IP68	IP67
Mechanical life-cycle	>100 mating cycles	>100 mating cycles	>100 mating cycles	>100 mating cycles
Degree of pollution	3	3	3	3 (RJ45:2)

With our Y- and T-splitters you can easily place branches. Signals can be distributed directly with a 2-way junction. The ports (male or female) can be arranged in a variety of configurations, what offers you a high variability and diversity. By request, shielded splitter solutions for communication applications in the field of PROFIBUS and CANopen are available.


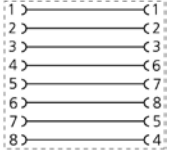

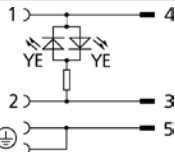

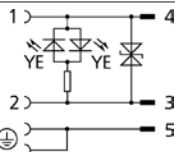

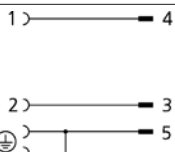

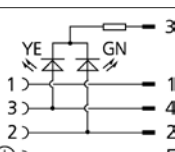
			Port						
			0	1	2	U[max]	I[max]	Item description	Item-No.
		Y-splitter M12x1 S89	male, M12x1, LED 4 pins, A	female, M12x1, LED 3 pins, A	female, M12x1, LED 3 pins, A	24V <sub>bdc</sub>	4A	FSM4-2FKM3P3/S89	8012652
		Y-splitter M12x1 S89	female, M12x1 4 pins, A	male, M12x1 3 pins, A	male, M12x1 3 pins, A	250V	4A	FKM4-2FSM3/S89	8012651
		Y-splitter M12x1 S89	male, M12x1 4 pins, A	female, M12x1 3 pins, A	female, M12x1 3 pins, A	250V	4A	FSM4-2FKM3/S89	8010464
			male, M12x1 5 pins, A	female, M12x1 4 pins, A	female, M12x1 4 pins, A	60V	4A	FSM5-2FKM5.4/S89	8010471
		Y-splitter M12x1 M8x1 - M8x1	male, M12x1 4 pins, A	female, M8x1 3 pins	female, M8x1 3 pins	250V	4A	FSM4-2SKP3/S89	8013058
		Y-splitter M12x1 MB	female, M12x1 5 pins, A	male, M12x1 5 pins, A	female, M12x1 5 pins, A	60V	4A	MB-FKM5-FSM5-FKM5	8024976
		Y-splitter M12x1 MB	male, M12x1, LED 5 pins, A	female, M12x1, LED 4 pins, A	female, M12x1, LED 4 pins, A	30V	4A	MB-FSM5-2FKM5.4P3	8024644
		Y-splitter M12x1 MB	male, M12x1 5 pins, A	female, M12x1 4 pins, A	female, M12x1 4 pins, A	60V	4A	MB-FSM5-2FKM5.4	8024643
			male, M12x1 8 pins, A	female, M12x1 8 pins, A	female, M12x1 8 pins, A	60V	2A	MB-FSM8-2FKM8	8028876
		Y-splitter M12x1 MB	male, M12x1 5 pins, A	male, M12x1 5 pins, A	female, M12x1 5 pins, A	60V	4A	MB-FSM5-FSM5-FKM5	8044611

			Port						
			0	1	2	U[max]	I[max]	Item description	Item-No.
		Y-splitter M12x1 MB shielded	female, M12x1 5 pins, A	male, M12x1 5 pins, A	female, M12x1 5 pins, A	60V	4A	Y-WAKS5-WASS5-WAKS5	8057723
		Y-splitter M12x1 MB shielded	male, M12x1 5 pins, A	female, M12x1 5 pins, A	female, M12x1 5 pins, A	60V	4A	Y-WASS5-2WAKS5	8056694
			male, M12x1 8 pins, A	female, M12x1 8 pins, A	female, M12x1 8 pins, A	30V	2A	Y-WASS8-2WAKS8	8057725
		Y-splitter M12x1 MB shielded	male, M12x1 5 pins, A	female, M12x1 5 pins, A	female, M12x1 5 pins, A	60V	4A	Y-WASS5-2WAKS5.4	8062356
		Y-splitter PROFIBUS M12x1 shielded	male, M12x1 5 pins, B	male, M12x1 5 pins, B	female, M12x1 5 pins, B	60V	4A	PB-Y-WASSW5-WASSW5-WAKSW5	8057724
		Y-splitter M12x1 MB shielded	female, M12x1 5 pins, A	male, M12x1 5 pins, A	male, M12x1 5 pins, A	30V	4A	Y-WAKS5-2WASS5	8057722
		Y-splitter M12x1 MB shielded	male, M12x1 5 pins, A	male, M12x1 5 pins, A	female, M12x1 5 pins, A	60V	4A	Y-WASS5-WASS5-WAKS5	8057721
		Y-splitter M12x1 Ø8mm snap - Ø8mm snap	female, M12x1 4 pins, A	male, Ø8mm snap 3 pins	male, Ø8mm snap 3 pins	60V	4A	FKM4-2ESP3S	8008080
		Y-splitter M8x1 MB	male, M8x1 4 pins	female, M8x1 3 pins	female, M8x1 3 pins	60V	4A	MB-SSP4-2SKP3/S56	8052222

			Port						
			0	1	2	U[max]	I[max]	Item description	Item-No.
		Y-splitter M8x1 MB	male, M8x1, LED 4 pins	female, M8x1, LED 3 pins	female, M8x1, LED 3 pins	30V	4A	MB-SSP4-2SKP3P3/S56	8052223
		Y-splitter M12x1 S55	male, M12x1 5 pins, A	female, M12x1 4 pins, A	female, M12x1 4 pins, A	60V	4A	FSM5-2FKM5.4/S55	8018720
		Y-splitter M12x1 M8x1 - M8x1	male, M12x1 4 pins, A	female, M8x1 3 pins	female, M8x1 3 pins	60V	4A	FSM4-2SKP3/S55/S56	8052224
		Y-splitter M12x1 M8x1 - M8x1	male, M12x1 4 pins, A	female, M8x1 3 pins	female, M8x1 3 pins	60V	4A	FSM4-2SKP3	8008081
		Y-splitter Ø8mm snap M8x1 - M8x1	male, Ø8mm snap 4 pins	female, M8x1 3 pins	female, M8x1 3 pins	30V	4A	SESP4S-2SKP3	8008082
		T-splitter M12x1	female, M12x1 5 pins, A	female, M12x1 5 pins, A	male, M12x1 5 pins, A	60V	4A	FKM5-FKM5-FSM5	8011661
			female, M12x1 8 pins, A	female, M12x1 8 pins, A	male, M12x1 8 pins, A	30V	2A	FKM8-FKM8-FSM8	8038856
			female, M12x1 4 pins, A	female, M12x1 4 pins, A	male, M12x1 4 pins, A	250V	4A	FKM4-FKM4-FSM4	8009675
		T-splitter M12x1	female, M12x1 4 pins, A	male, M12x1 4 pins, A	male, M12x1 4 pins, A	250V	4A	FKM4-FSM4-FSM4	8008139
			female, M12x1 5 pins, A	male, M12x1 5 pins, A	male, M12x1 5 pins, A	60V	4A	FKM5-FSM5-FSM5	8017792

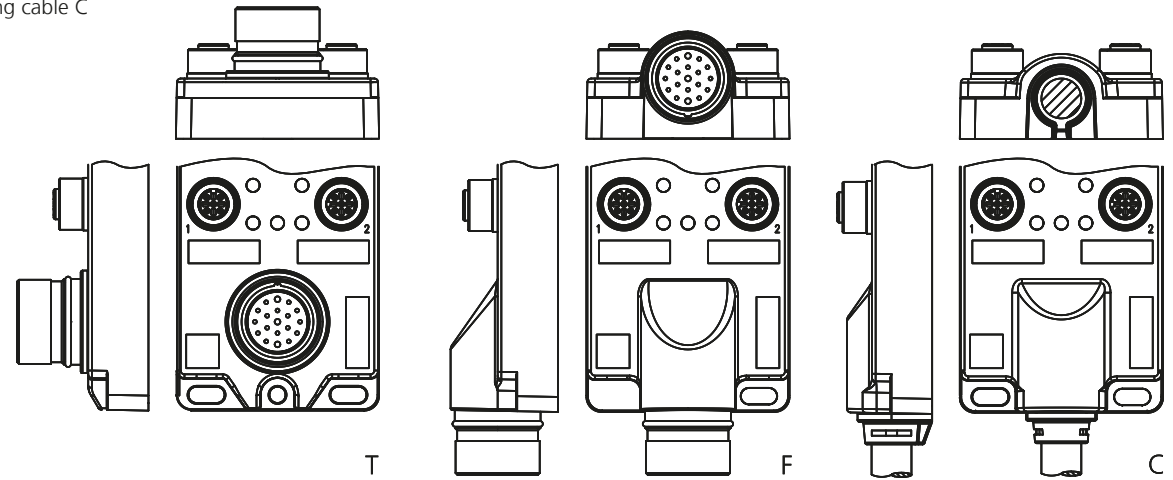
			Port						
			0	1	2	U[max]	I[max]	Item description	Item-No.
		T-splitter CANopen / Devicenet M12x1	female, M12x1 5 pins, A	female, M12x1 5 pins, A	male, M12x1 5 pins, A	60V	4A	FKM5-FKM5-FSM5/S222	8035172
		T-splitter M12x1 shielded	female, M12x1 5 pins, A	female, M12x1 5 pins, A	male, M12x1 5 pins, A	60V	4A	T-WAKS5-WAKS5-WASS5	8056693
			female, M12x1 8 pins, A	female, M12x1 8 pins, A	male, M12x1 8 pins, A	30V	2A	T-WAKS8-WAKS8-WASS8	8057720
		T-splitter M12x1 shielded	female, M12x1 5 pins, A	male, M12x1 5 pins, A	male, M12x1 5 pins, A	60V	4A	T-WAKS5-WASS5-WASS5	8057718
		T-splitter PROFIBUS M12x1 shielded	female, M12x1 5 pins, B	male, M12x1 5 pins, B	male, M12x1 5 pins, B	60V	4A	PB-T-WAKSW5-WASSW5-WASSW5	8057719
		Adapter M12x1 - M12x1	female, M12x1 5 pins, A	female, M12x1 5 pins, A		60V	4A	WAK4.5-WAK4.5	8041351
		Adapter M12x1 - M12x1	female, M12x1 5 pins, A	male, M12x1 5 pins, A		60V	4A	WAK4.5-WAS4.5	8041349
		Adapter M12x1 - M12x1	male, M12x1 5 pins, A	male, M12x1 5 pins, A		60V	4A	WAS4.5-WAS4.5	8041352
		Adapter M12x1 - M8x1	male, M12x1 3 pins, A	female, M8x1 4 pins		60V	4A	FSM3-SKP3	8008079
			male, M12x1 4 pins, A	female, M8x1 4 pins		30V	4A	FSM4-SKP4	8008138

			Port						
			0	1	2	U[max]	I[max]	Item description	Item-No.
		Panel feed through M12x1 - M12x1	female, M12x1, 4 pins, A	male, M12x1, 4 pins, A		250V	4A	FKFS4/M12	8018404
			female, M12x1, 5 pins, A	male, M12x1, 5 pins, A		60V	4A	FKFS4.5/M12	8018405
			female, M12x1, 8 pins, A	male, M12x1, 8 pins, A		30V	2A	FKFS8/M12	8018410
		Adapter Industrial Ethernet M12x1 - M12x1 shielded	female, M12x1, 4 pins, D	female, M12x1, 4 pins, D		250V	4A	IE-WAKSY4-IE-WAKSY4	8065952
		Adapter Industrial Ethernet M12x1 - M12x1 shielded	female, M12x1, 8 pins, X	female, M12x1, 8 pins, X		50V <sub>AC</sub>   60V <sub>DC</sub>	0,5A	IE-WAKSX8-IE-WAKSX8	8065951
		Adapter Industrial Ethernet M12x1 - M12x1 shielded	female, M12x1, 8 pins, X	female, M12x1, 4 pins, D		50V <sub>AC</sub>   60V <sub>DC</sub>	0,5A	IE-WAKSX8-IE-WAKSY4	8065950
		Panel feed through Industrial Ethernet M12x1 - RJ 45, straight, shielded	female, M12x1, 4 pins, D	female, RJ45, 8 pins		50V <sub>AC/DC</sub>	0,2A	IE-FKFDSY4-RJ45KS	8057085
		Panel feed through Industrial Ethernet M12x1 - RJ 45, angled, shielded	female, M12x1, 4 pins, D	female, RJ45, 8 pins		50V <sub>AC/DC</sub>	0,2A	IE-WKFDSY4-RJ45KS	8057086
		Panel feed through Industrial Ethernet M12x1 - RJ 45, straight, shielded	female, M12x1, 8 pins, X	female, RJ45, 8 pins		50V <sub>AC</sub>   60V <sub>DC</sub>	0,5A	IE-FKFDSX8-RJ45KS	8055773

			Port						
			0	1	2	U[max]	I[max]	Item description	Item-No.
		Panel feed through Industrial Ethernet M12x1 - RJ 45, angled, shielded	female, M12x1, 8 pins, X	female, RJ45, 8 pins		50V <sub>AC</sub>   60V <sub>DC</sub>	0.5A	IE-WFKFDSX8-RJ45KS	8055774
		Adapter Valve M12x1	female, Valve A, angled	male, M12x1, 5 pins, A		24V <sub>AC/DC</sub>	4A	VA22-24.1-WAS5.002	8055767
		Adapter Valve M12x1	female, Valve A, angled	male, M12x1, 5 pins, A		24V <sub>AC/DC</sub>	4A	VA22-24.3-WAS5.002	8055768
		Adapter Valve M12x1	female, Valve A, angled	male, M12x1, 5 pins, A		60V <sub>AC/DC</sub>	4A	VA22-60.0-WAS5.002	8055770
		Adapter Valve M12x1	female, Valve A, angled	male, M12x1, 5 pins, A		24V <sub>DC</sub>	4A	VA41-24.2-WAS5	8055769

Nomenclature

8	I/O	M8-	3	P2	T	L	/S370	/S503
Quantity of I/O-ports	I/O-junction box	I/O port M8x1,   Ø8mm snap (S8)   M12x1	Contacts	PNP   Quantity LEDs + circuit	Connection T: top   F: front   C: cable	Cable length [m] with connecting cable C	Cable quality	Hard-wired logic (M8x1 only)

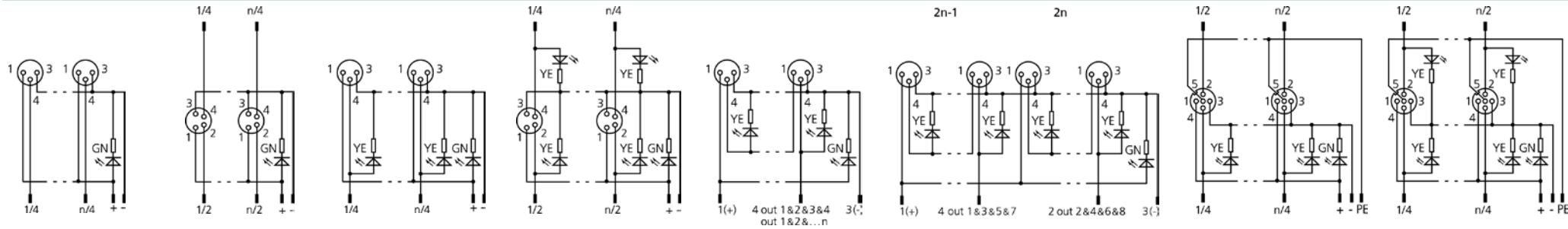


Cable	Short description
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P01   PVC	Flexible PVC/PVC sensor-/actuator control-cable for medium mechanical stresses. Conditioned oil- and chemical resistant, UL-style.
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S370   PUR	Flexible PUR/PP sensor-/actuator control-cable for high mechanical stresses. Halogen-free, flameratardant, medium torsion- and drag-chain capability, oil- and chemical resistant, UL-style.
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Ø8mm snap   3 pins	Ø8mm snap   4 pins	M8x1   3 pins	M8x1   4 pins	M8x1   4x/8x AND	M8x1   2x4 AND	M12x1   3+PE	M12x1   4+PE
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I/O-junctions














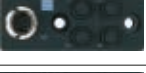
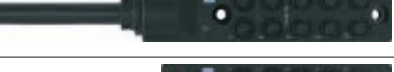

~M1:2

## I/O-junctions

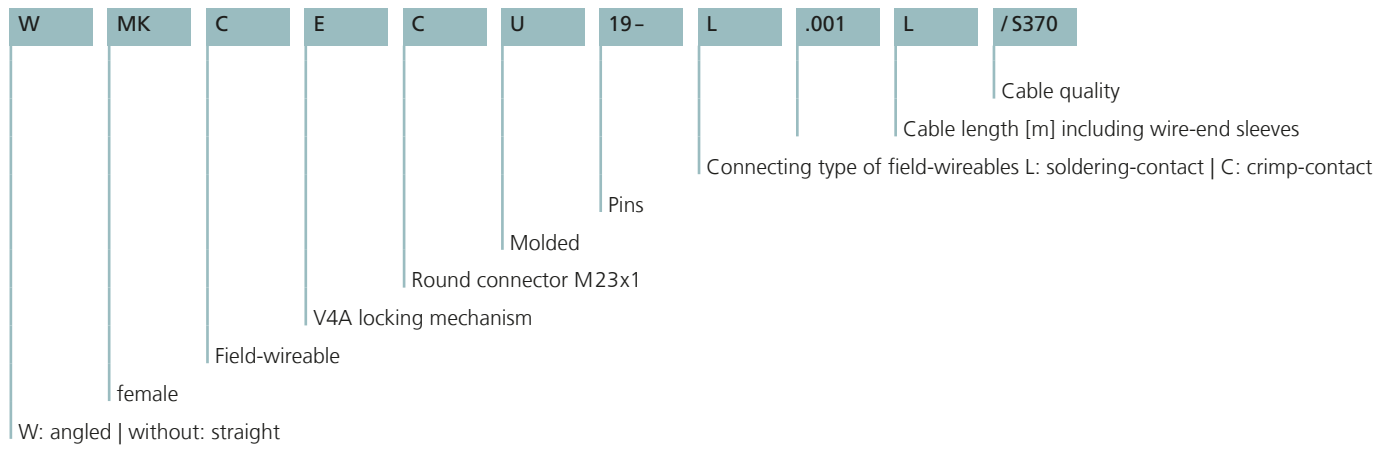
Technical data	M12x1	M8x1	Ø8mm snap
Insulation resistance	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$
Resistance	$\leq 5 m\Omega$	$\leq 5 m\Omega$	$\leq 5 m\Omega$
Ambient temperature product	-30°C...+90°C	-30°C...+90°C	-30°C...+90°C
Contact material	Metal, CuZn, gold-plated	Metal, CuZn, gold-plated	Metal, CuZn, gold-plated
Contact-carrier material	Plastic, PA, BK	Plastic, PA, BK	Plastic, PA, BK
Sealing (female) material	FPM/FKM	FPM/FKM	FPM/FKM
Standards	IEC 61076-2-101	IEC 61076-2-104	IEC 61076-2-104
Degree of protection (mounted)	IP65, IP67	IP65, IP67	IP65, IP67
Mechanical life-cycle	>100 mating cycles	>100 mating cycles	>100 mating cycles
Degree of pollution	3	3	3

M8x1- and M12x1-passive junctions from ESCHA particularly stand out for their compact housing style as well as their flexible fixing possibilities. They are predestined for harsh industrial applications through the proven full potting and a metal thread insert meeting protection classes IP65 and IP67 high requirements. Thanks to a different number of ports and functions – which also facilitate a so called logical ‘AND-distribution’ – and outlets (fixed cable-, top- or front connection) you always find what you are looking for.

		I/O					L = cable length				
			Exit	Port	$\Sigma$ [max]	Item description	male	2m	5m	10m	15m
	I/O-junction, M12x1, Top	4	3+PE	M23x1, 12 pins	12A	4I/OM12-5.4P2T	8048790				
			4+PE	M23x1, 19 pins	12A	4I/OM12-5P3T	8045895				
	I/O-junction, M12x1, Front	4	3+PE	M23x1, 12 pins	12A	4I/OM12-5.4P2F	8048791				
			4+PE	M23x1, 19 pins	12A	4I/OM12-5P3F	8045891				
	I/O-junction, M12x1, Cable	4	3+PE		12A	4I/OM12-5.4P2C-L/S370		8048792			
			4+PE		12A	4I/OM12-5P3C-L/S370		8045894			
	I/O-junction, M12x1, Top	6	3+PE	M23x1, 12 pins	12A	6I/OM12-5.4P2T	8048787				
			4+PE	M23x1, 19 pins	12A	6I/OM12-5P3T	8045896				
	I/O-junction, M12x1, Front	6	3+PE	M23x1, 12 pins	12A	6I/OM12-5.4P2F	8048788				
			4+PE	M23x1, 19 pins	12A	6I/OM12-5P3F	8045892				
	I/O-junction, M12x1, Cable	6	3+PE		12A	6I/OM12-5.4P2C-L/S370		8048789			
			4+PE		12A	6I/OM12-5P3C-L/S370		8045893			
	I/O-junction, M12x1, Top	8	3+PE	M23x1, 12 pins	12A	8I/OM12-5.4P2T	8048784				
			4+PE	M23x1, 19 pins	12A	8I/OM12-5P3T	8045647				
	I/O-junction, M12x1, Front	8	3+PE	M23x1, 12 pins	12A	8I/OM12-5.4P2F	8048785				
			4+PE	M23x1, 19 pins	12A	8I/OM12-5P3F	8045649				
	I/O-junction, M12x1, Cable	8	3+PE		12A	8I/OM12-5.4P2C-L/S370		8048786			
			4+PE		12A	8I/OM12-5P3C-L/S370		8045648			
	I/O-junction, M8x1, Top	4	3	M12x1, 8 pins	2A	4I/OM8-3P2T	8061747				

		I/O	Exit	Port	ΣI [max]	Item description	L = cable length				
							male	2m	5m	10m	15m
	I/O-junction, M8x1, Top 4x AND hard wired logic	4	3	M12x1, 5 pins	4A	4I/OM8-3P2T/S505	8062606				
	I/O-junction, M8x1, Cable	4	3		6A	4I/OM8-3P2C-L/S370		8061768	8061776	8061777	8061778
			4		6A	4I/OM8-4P3C-L/S370		8061783	8061784	8061785	8061786
	I/O-junction, M8x1, Top	8	3	M12x1, 12 pins	1.5A	8I/OM8-3P2T	8061744				
	I/O-junction, M8x1, Top 8x AND hard wired logic	8	3	M12x1, 5 pins	4A	8I/OM8-3P2T/S503	8062608				
	I/O-junction, M8x1, Top 2x4 AND hard wired logic	8	3	M12x1, 5 pins	4A	8I/OM8-3P2T/S504	8062610				
	I/O-junction, M8x1, Cable	8	3		6A	8I/OM8-3P2C-L/S370		8061794	8061796	8061797	8061798
			4		6A	8I/OM8-4P3C-L/S370		8061803	8061804	8061805	8061806
	I/O-junction, M8x1, Top	10	3	M12x1, 12 pins	1.5A	10I/OM8-3P2T	8061633				
	I/O-junction, M8x1, Cable	10	3		6A	10I/OM8-3P2C-L/S370		8061811	8061812	8061813	8061814
	I/O-junction, Ø8mm snap, Cable	4	3		6A	4I/OS8-3P1C-L/P01		8062806	8062807	8062808	8062809
			3		6A	4I/OS8-3P1C-L/S370		8062789	8062790	8062791	8062792
			4		6A	4I/OS8-4P1C-L/P01		8062817	8062818	8062819	8062820
			4		6A	4I/OS8-4P1C-L/S370		8062813	8062814	8062815	8062816
	I/O-junction, Ø8mm snap, Top	4	3	M12x1, 5 pins	4A	4I/OS8-3P1T	8062601				
			4	M12x1, 12 pins	1.5A	4I/OS8-4P1T	8062599				
	I/O-junction, Ø8mm snap, Cable	10	3		6A	10I/OS8-3P1C-L/P01		8062838	8062839	8062840	8062841
			3		6A	10I/OS8-3P1C-L/S370		8062825	8062826	8062827	8062828
	I/O-junction, Ø8mm snap, Top	10	3	M12x1, 5 pins	2A	10I/OS8-3P1T	8062604				

Nomenclature



Cable	Short description
S370   PUR	Flexible PUR/PP sensor-/actuator control-cable for high mechanical stresses. Halogen-free, flame retardant, medium torsion- and drag-chain capability, oil- and chemical resistant, UL-style.

M23x1







Nearly actual size

## M23x1

Technical data	Connector	Field-wireable
Insulation resistance	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$
Resistance	$\leq 5 m\Omega$	
Ambient temperature product	-30°C...+90°C	-40°C...+125°C
Contact material	Metal, gold-plated	Metal, CuZn, gold-plated
Contact-carrier material	Plastic, PBT	Plastic, PBT, GY
Grip body material	Plastic, TPU	Metal, CuZn, nickel-plated, silver-plated
Coupling nut material	Metal, nickel-plated	Metal, CuZn, nickel-plated
Sealing (female) material	Plastic, NBR	
Degree of protection (mounted)	IP65, IP67	
Mechanical life-cycle	>100 mating cycles	>100 mating cycles
Degree of pollution	3	3
Clamping area		12 pins: 8...12mm 19 pins: 10...14mm
Connecting cross-section		12 pins: contacts 10, 11, 12: 0.75...1.0mm <sup>2</sup>   others 0.5...0.75mm <sup>2</sup> 19 pins: contacts 9, 12, 19: 0.75...1.0mm <sup>2</sup>   others 0.5...0.75mm <sup>2</sup>

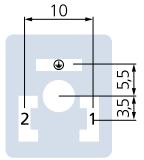
The overmoulded and field-wireable M23x1 connectors are perfectly adapted to our M12x1-passive junctions. You can choose between 12 and 19 pin versions with different configurations. Due to the ESCHA exclusive cable quality named 'S370', the M23x1 connectors are universally usable in different applications.

		Body			Cable			Item description	L = cable length*		
		Pins	U[max]	I[max]	Material	Color	UL		2m / 1m	5m / 2m	10m / 5m
	Extension cable female, M23x1, straight	12	125V	4A   8A (contacts 10,11,12)	PUR	BK	•	MKCU12.001-L/S370	8027363	8026032	8026033
		12	125V	4A   8A (contacts 10,11,12)	PUR	BK	•	MKCU12.003-L/S370	8026243	8026039	8026041
		19	125V	4A   10A (contacts 9,12,19)	PUR	BK	•	MKCU19.001-L/S370	8027364	8026036	8026037
		19	125V	4A   10A (contacts 9,12,19)	PUR	BK	•	MKCU19.003-L/S370	8027365	8017221	8017222
	Extension cable female, M23x1, angled	12	125V	4A   8A (contacts 10,11,12)	PUR	BK	•	WMKCU12.001-L/S370	8027366	8026043	8026044
		12	125V	4A   8A (contacts 10,11,12)	PUR	BK	•	WMKCU12.003-L/S370	8026244	8026049	8026050
		19	125V	4A   10A (contacts 9,12,19)	PUR	BK	•	WMKCU19.001-L/S370	8027368	8026046	8026047
		19	125V	4A   10A (contacts 9,12,19)	PUR	BK	•	WMKCU19.003-L/S370	8027370	8017111	8017112
	Connector field-wireable female, M23x1, straight Soldering contact	12	150V	4A   8A (contacts 10,11,12)				MKCC12L	8013694		
		19	125V	4A   10A (contacts 9,12,19)				MKCC19L	8013696		
	Connector field-wireable female, M23x1, angled Soldering contact	12	150V	4A   8A (contacts 10,11,12)				WMKCC12L	8017153		
		19	125V	4A   10A (contacts 9,12,19)				WMKCC19L	8017151		

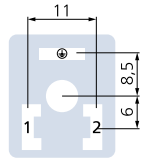
\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.



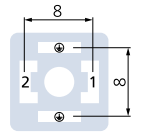
Type	Contacts	$U_{[max]}$	Circuit	Cable length	B-side
<b>VA</b> A	<b>21</b> 2+PE	<b>24</b> 24V <sub>DC</sub>   24V <sub>AC/DC</sub>	<b>0</b> without	<b>L</b> Extension, connection cable	open cable end
<b>VAA</b> A straight	<b>22</b> 2+PE jumpered	<b>60</b> 60V <sub>AC/DC</sub>	<b>1</b> LED	<b>L1/L2</b> Double-valve connector	<b>DA 22-24.3</b> Double-valve connector
<b>VAAG</b> A straight grip with thread	<b>41</b> 3+PE+ wire-connection	<b>230</b> 230V <sub>AC/DC</sub>	<b>2</b> LED+suppressor diode		<b>WAS5.002</b> Adapter M12x1, valve
<b>VB</b> B (10mm contact clearance)			<b>3</b> LED+suppressor diode		
<b>VBI</b> BI (11mm contact clearance)			<b>4</b> LED+Z-diode		
<b>VC</b> C (8mm contact clearance)			<b>5</b> LED+varistor		
<b>VCI</b> CI (9.4mm contact clearance)					



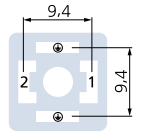
VB



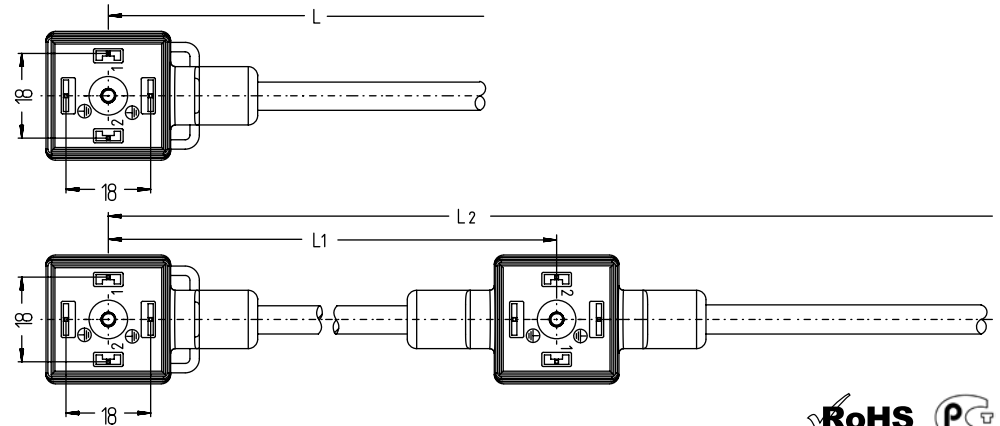
VBI



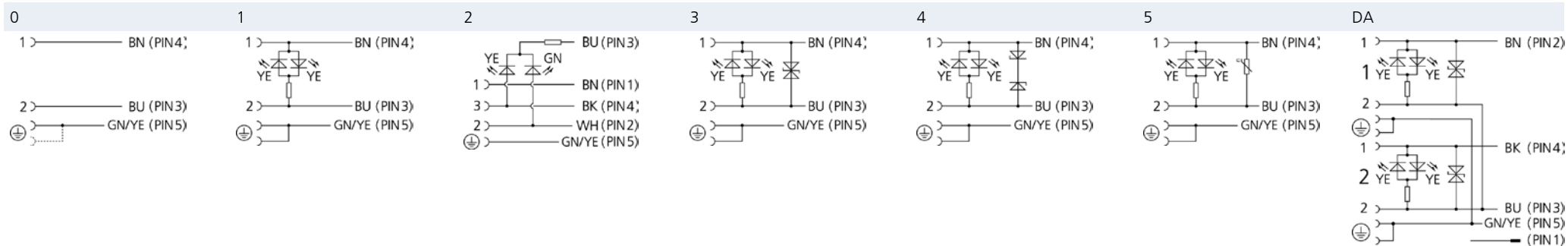
VC



VCI



Cable	Short description
P00   PVC	Flexible PVC/PVC sensor/actuator control-cable for medium mechanical stresses. Conditioned oil- and chemical resistant.
P01   PVC	Flexible PVC/PVC sensor/actuator control-cable for medium mechanical stresses. Conditioned oil- and chemical resistant, UL-style.
S370   PUR	Flexible PUR/PP sensor/actuator control-cable for high mechanical stresses. Halogen-free, flameratardant, medium torsion- and drag-chain capability, oil- and chemical resistant, UL-style.









Nearly actual size




## Valve connectors

Technical data	Valve connector	M12x1 (Adapter, Double-Valve connector)
Insulation resistance	$\geq 10^8 \Omega$	$\geq 10^8 \Omega$
Resistance	$\leq m\Omega$	$\leq m\Omega$
Ambient temperature product	-30°C...+90°C	-30°C...+90°C
Contact material	Metal, silver-plated	Metal, gold-plated
Contact-carrier material	Plastic, PA	Plastic, TPU
Grip body material	Plastic, TPU	Plastic, TPU
Sealing (female) material	Plastic, TPU	
Standards	DIN EN 175301-803	IEC 61076-2-101
Degree of protection (mounted)	IP65, IP67, IP68	IP65, IP67, IP68
Mechanical life-cycle	>100 mating cycles	>100 mating cycles
Degree of pollution	3	3




ESCHA valve-connectors stand for minimum installation space and excellent LED visibility in all installation positions at the same time. They are available in typical housing styles and protection circuits. A comprehensive product program with extension- and connection cables as well as adapters and double-valve connectors offers a suitable solution for any application.

	Pins	Body		Cable			Item description	L / L2 = cable length		
		U[max]	Circuit	Material	Color	L1[m]		2m / 1m	5m / 2m	10m / 5m
 Extension cable female, Valve A, angled	2+PE	230V <sub>AC/DC</sub>	without	PUR*	BK		VA21-230.0-L/S370	8050753	8047806	8050754
		230V <sub>AC/DC</sub>	without	PVC	GY		VA21-230.0-L/P00	8048838	8048841	8050824
		230V <sub>AC/DC</sub>	without	PVC*	GY		VA21-230.0-L/P01	8050873	8047823	8050874
	2+PE, PE bridged	230V <sub>AC/DC</sub>	Varistor	PUR*	BK		VA22-230.5-L/S370	8050755	8046704	8050756
		230V <sub>AC/DC</sub>	Varistor	PVC	GY		VA22-230.5-L/P00	8050827	8048819	8050828
		230V <sub>AC/DC</sub>	Varistor	PVC*	GY		VA22-230.5-L/P01	8050875	8047824	8050876
		230V <sub>AC/DC</sub>	without	PUR*	BK		VA22-230.0-L/S370	8052299	8052300	8052301
		230V <sub>AC/DC</sub>	without	PVC	GY		VA22-230.0-L/P00	8052302	8052303	8052304
		230V <sub>AC/DC</sub>	without	PVC*	GY		VA22-230.0-L/P01	8052305	8052306	8052307
		24V <sub>AC/DC</sub>	Suppressor diode	PUR*	BK		VA22-24.3-L/S370	8050293	8047804	8048527
		24V <sub>AC/DC</sub>	Suppressor diode	PVC	GY		VA22-24.3-L/P00	8048840	8048839	8049537
		24V <sub>AC/DC</sub>	Suppressor diode	PVC*	GY		VA22-24.3-L/P01	8049306	8047821	8050863
		24V <sub>AC/DC</sub>	without	PUR*	BK		VA22-24.1-L/S370	8050501	8047803	8048240
	3+PE wire	24V <sub>DC</sub>	without	PUR*	BK		VA41-24.2-L/S370	8050500	8047805	8049933
		24V <sub>DC</sub>	without	PVC	GY		VA41-24.2-L/P00	8050822	8049310	8050540
		24V <sub>DC</sub>	without	PVC*	GY		VA41-24.2-L/P01	8050865	8047822	8050866
 Extension cable female, Valve AA, straight	2+PE	230V <sub>AC/DC</sub>	without	PUR*	BK		VAA21-230.0-L/S370	8055720	8055721	8055722
		230V <sub>AC/DC</sub>	without	PVC	GY		VAA21-230.0-L/P00	8055726	8055727	8055728
		230V <sub>AC/DC</sub>	without	PVC*	GY		VAA21-230.0-L/P01	8055732	8055733	8055734
	2+PE, PE bridged	230V <sub>AC/DC</sub>	Varistor	PUR*	BK		VAA22-230.5-L/S370	8055666	8055671	8055667
		230V <sub>AC/DC</sub>	Varistor	PVC	GY		VAA22-230.5-L/P00	8055690	8055691	8055692
		230V <sub>AC/DC</sub>	Varistor	PVC*	GY		VAA22-230.5-L/P01	8055712	8055713	8055714
		24V <sub>AC/DC</sub>	Suppressor diode	PUR*	BK		VAA22-24.3-L/S370	8055654	8055655	8055656
		24V <sub>AC/DC</sub>	Suppressor diode	PVC	GY		VAA22-24.3-L/P00	8055679	8055680	8055678
		24V <sub>AC/DC</sub>	Suppressor diode	PVC*	GY		VAA22-24.3-L/P01	8055701	8055702	8055703
		24V <sub>AC/DC</sub>	without	PUR*	BK		VAA22-24.1-L/S370	8055648	8055649	8055650
		24V <sub>AC/DC</sub>	without	PVC	GY		VAA22-24.1-L/P00	8055672	8055673	8055674
	3+PE wire	24V <sub>AC/DC</sub>	without	PVC*	GY		VAA22-24.1-L/P01	8055696	8055697	8055698
		24V <sub>AC/DC</sub>	without	PUR*	BK		VAA41-24.2-L/S370	8055660	8055661	8055662
		24V <sub>AC/DC</sub>	without	PVC	GY		VAA41-24.2-L/P00	8055685	8055686	8055684
			24V <sub>AC/DC</sub>	without	PVC*	GY		VAA41-24.2-L/P01	8055707	8055708





\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

	Pins	Body		Cable			Item description	L / L2 = cable length		
		U[mm]	Circuit	Material	Color	L1[m]		2m / 1m	5m / 2m	10m / 5m
 Extension cable female, Valve AAG, straight Grip with thread for protective tubing	2+PE	230V <sub>AC/DC</sub>	without	PUR*	BK		VAAG21-230.0-L/S370	8055723	8055724	8055725
		230V <sub>AC/DC</sub>	without	PVC	GY		VAAG21-230.0-L/P00	8055729	8055730	8055731
		230V <sub>AC/DC</sub>	without	PVC*	GY		VAAG21-230.0-L/P01	8055735	8055736	8055737
	2+PE, PE bridged	230V <sub>AC/DC</sub>	Varistor	PUR*	BK		VAAG22-230.5-L/S370	8055668	8055669	8055670
		230V <sub>AC/DC</sub>	Varistor	PVC	GY		VAAG22-230.5-L/P00	8055693	8055694	8055695
		230V <sub>AC/DC</sub>	Varistor	PVC*	GY		VAAG22-230.5-L/P01	8055715	8055716	8055717
		24V <sub>AC/DC</sub>	Suppressor diode	PUR*	BK		VAAG22-24.3-L/S370	8055657	8055658	8055659
		24V <sub>AC/DC</sub>	Suppressor diode	PVC	GY		VAAG22-24.3-L/P00	8055682	8055683	8055681
		24V <sub>AC/DC</sub>	Suppressor diode	PVC*	GY		VAAG22-24.3-L/P01	8055704	8055705	8055706
		24V <sub>AC/DC</sub>	without	PUR*	BK		VAAG22-24.1-L/S370	8055651	8055652	8055653
		24V <sub>AC/DC</sub>	without	PVC	GY		VAAG22-24.1-L/P00	8055677	8055675	8055676
		24V <sub>AC/DC</sub>	without	PVC*	GY		VAAG22-24.1-L/P01	8055699	8055700	8055718
3+PE wire	24V <sub>AC/DC</sub>	without	PUR*	BK		VAAG41-24.2-L/S370	8055663	8055664	8055665	
	24V <sub>AC/DC</sub>	without	PVC	GY		VAAG41-24.2-L/P00	8055688	8055689	8055687	
	24V <sub>AC/DC</sub>	without	PVC*	GY		VAAG41-24.2-L/P01	8055719	8055710	8055711	
 Extension cable female, Valve A, angled female, Valve D, angled	2+PE, PE bridged	24V <sub>AC/DC</sub>	Suppressor diode	PUR*	BK	0.15	VA22-24.3-0,15-DA22-24.3-L/S370	8055743	8055744	8055745
		24V <sub>AC/DC</sub>	Suppressor diode	PUR*	BK	0.40	VA22-24.3-0,4-DA22-24.3-L/S370	8055746	8055747	8055748
		24V <sub>AC/DC</sub>	Suppressor diode	PVC	GY	0.15	VA22-24.3-0,15-DA22-24.3-L/P00	8055749	8055750	8055751
		24V <sub>AC/DC</sub>	Suppressor diode	PVC	GY	0.40	VA22-24.3-0,4-DA22-24.3-L/P00	8055752	8055753	8055754
		24V <sub>AC/DC</sub>	Suppressor diode	PVC*	GY	0.15	VA22-24.3-0,15-DA22-24.3-L/P01	8055755	8055756	8055757
		24V <sub>AC/DC</sub>	Suppressor diode	PVC*	GY	0.40	VA22-24.3-0,4-DA22-24.3-L/P01	8055758	8055759	8055760
 Extension cable female, Valve A, angled female, Valve D, angled M12x1, 5 pins	2+PE, PE bridged	24V <sub>AC/DC</sub>	Suppressor diode	PUR*	BK	0.15	VA22-24.3-0,15-DA22-24.3-WAS5.132/S370	8055761		
		24V <sub>AC/DC</sub>	Suppressor diode	PUR*	BK	0.40	VA22-24.3-0,4-DA22-24.3-WAS5.132/S370	8055762		
		24V <sub>AC/DC</sub>	Suppressor diode	PVC	GY	0.15	VA22-24.3-0,15-DA22-24.3-WAS5.132/P00	8055763		
		24V <sub>AC/DC</sub>	Suppressor diode	PVC	GY	0.40	VA22-24.3-0,4-DA22-24.3-WAS5.132/P00	8055764		
		24V <sub>AC/DC</sub>	Suppressor diode	PVC*	GY	0.15	VA22-24.3-0,15-DA22-24.3-WAS5.132/P01	8055765		
		24V <sub>AC/DC</sub>	Suppressor diode	PVC*	GY	0.40	VA22-24.3-0,4-DA22-24.3-WAS5.132/P01	8055766		






\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.

	Pins	Body		Cable			Item description	L / L2 = cable length		
		U[max]	Circuit	Material	Color	L1[m]		2m / 1m	5m / 2m	10m / 5m
	2+PE	230V <sub>AC/DC</sub>	Varistor	PUR*	BK		VB21-230.5-L/S370	8050762	8047810	8050763
		230V <sub>AC/DC</sub>	Varistor	PVC	GY		VB21-230.5-L/P00	8050835	8049312	8050836
		230V <sub>AC/DC</sub>	Varistor	PVC*	GY		VB21-230.5-L/P01	8050883	8047828	8050884
		230V <sub>AC/DC</sub>	without	PUR*	BK		VB21-230.0-L/S370	8050760	8047809	8050761
		230V <sub>AC/DC</sub>	without	PVC	GY		VB21-230.0-L/P00	8048842	8048843	8050834
		230V <sub>AC/DC</sub>	without	PVC*	GY		VB21-230.0-L/P01	8050881	8047827	8050882
		24V <sub>AC/DC</sub>	Suppressor diode	PUR*	BK		VB21-24.3-L/S370	8050758	8047808	8050759
		24V <sub>AC/DC</sub>	Suppressor diode	PVC	GY		VB21-24.3-L/P00	8048844	8048845	8050832
		24V <sub>AC/DC</sub>	Suppressor diode	PVC*	GY		VB21-24.3-L/P01	8050879	8047826	8050880
		24V <sub>AC/DC</sub>	without	PUR*	BK		VB21-24.1-L/S370	8049246	8047807	8050757
		24V <sub>AC/DC</sub>	without	PVC	GY		VB21-24.1-L/P00	8050829	8049311	8050830
		24V <sub>AC/DC</sub>	without	PVC*	GY		VB21-24.1-L/P01	8050877	8047825	8050878
	2+PE	230V <sub>AC/DC</sub>	Varistor	PUR*	BK		VB121-230.5-L/S370	8050767	8047814	8050768
		230V <sub>AC/DC</sub>	Varistor	PVC	GY		VB121-230.5-L/P00	8050859	8048821	8050860
		230V <sub>AC/DC</sub>	Varistor	PVC*	GY		VB121-230.5-L/P01	8050906	8047832	8050907
		230V <sub>AC/DC</sub>	without	PUR*	BK		VB121-230.0-L/S370	8050766	8047813	8049931
		230V <sub>AC/DC</sub>	without	PVC	GY		VB121-230.0-L/P00	8050857	8049314	8050858
		230V <sub>AC/DC</sub>	without	PVC*	GY		VB121-230.0-L/P01	8050904	8047831	8050905
		24V <sub>AC/DC</sub>	Suppressor diode	PUR*	BK		VB121-24.3-L/S370	8049884	8047812	8050765
		24V <sub>AC/DC</sub>	Suppressor diode	PVC	GY		VB121-24.3-L/P00	8050855	8048820	8050856
		24V <sub>AC/DC</sub>	Suppressor diode	PVC*	GY		VB121-24.3-L/P01	8050901	8047830	8050902
		24V <sub>AC/DC</sub>	without	PUR*	BK		VB121-24.1-L/S370	8050764	8047811	8050539
		24V <sub>AC/DC</sub>	without	PVC	GY		VB121-24.1-L/P00	8050838	8049313	8050538
		24V <sub>AC/DC</sub>	without	PVC*	GY		VB121-24.1-L/P01	8050899	8047829	8050900
	2+PE	230V <sub>AC/DC</sub>	without	PUR*	BK		VC21-230.0-L/S370	8050772	8047817	8050773
		230V <sub>AC/DC</sub>	without	PVC	GY		VC21-230.0-L/P00	8050846	8049317	8050848
		230V <sub>AC/DC</sub>	without	PVC*	GY		VC21-230.0-L/P01	8050914	8047835	8050916
	2+PE, PE bridged	24V <sub>AC/DC</sub>	Z-diode	PUR*	BK		VC22-24.4-L/S370	8049873	8047816	8050771
		24V <sub>AC/DC</sub>	Z-diode	PVC	GY		VC22-24.4-L/P00	8050844	8049316	8050845
		24V <sub>AC/DC</sub>	Z-diode	PVC*	GY		VC22-24.4-L/P01	8050912	8047834	8050913
		24V <sub>AC/DC</sub>	without	PVC	GY		VC22-24.1-L/P00	8050842	8049315	8050843
		24V <sub>AC/DC</sub>	without	PVC*	GY		VC22-24.1-L/P01	8050909	8047833	8050910
		24V <sub>AC/DC</sub>	without	PVC*	GY		VC22-24.1-L/S370	8050769	8047815	8050770

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.


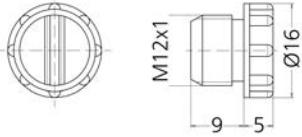

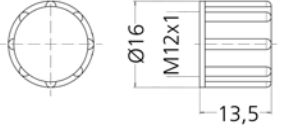

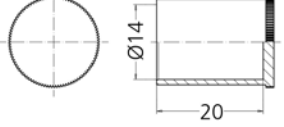

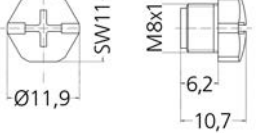
	Pins	Body		Cable			Item description	L / L2 = cable length			
		U[ <i>max</i> ]	Circuit	Material	Color	L1[m]		2m / 1m	5m / 2m	10m / 5m	
	2+PE	230V <sub>AC/DC</sub>	without	PUR*	BK		VC121-230.0-L/S370	8050778	8047820	8050779	
		230V <sub>AC/DC</sub>	without	PVC	GY		VC121-230.0-L/P00	8050853	8049320	8050854	
		230V <sub>AC/DC</sub>	without	PVC*	GY		VC121-230.0-L/P01	8050921	8047838	8050922	
	2+PE, PE bridged	24V <sub>AC/DC</sub>	without	PUR*	BK		VC122-24.1-L/S370	8050774	8047818	8050775	
		24V <sub>AC/DC</sub>	without	PVC	GY		VC122-24.1-L/P00	8050849	8049318	8050850	
		24V <sub>AC/DC</sub>	without	PVC*	GY		VC122-24.1-L/P01	8050917	8047836	8050918	
		24V <sub>AC/DC</sub>	Z-diode	PUR*	BK		VC122-24.4-L/S370	8050776	8047819	8050777	
		24V <sub>AC/DC</sub>	Z-diode	PVC	GY		VC122-24.4-L/P00	8050851	8049319	8050852	
	2+PE, PE bridged	24V <sub>AC/DC</sub>	Suppressor diode	PUR*	BK		VA22-24.3-L-AL-WAS5.002/S370	8052049	8050782	8050783	
		24V <sub>AC/DC</sub>	Suppressor diode	PVC	GY		VA22-24.3-L-AL-WAS5.002/P00	8052209	8052225	8052226	
		24V <sub>AC/DC</sub>	Suppressor diode	PVC*	GY		VA22-24.3-L-AL-WAS5.002/P01	8052260	8052261	8052262	
	3+PE wire	24V <sub>AC/DC</sub>	without	PUR*	BK		VA41-24.2-L-AL-WAS5/S370	8052051	8050785	8050786	
		24V <sub>AC/DC</sub>	without	PVC	GY		VA41-24.2-L-AL-WAS5/P00	8052230	8052231	8052232	
		24V <sub>AC/DC</sub>	without	PVC*	GY		VA41-24.2-L-AL-WAS5/P01	8052266	8052267	8052268	
		2+PE, PE bridged	24V <sub>AC/DC</sub>	Suppressor diode	PUR*	BK		VA22-24.3-L-AL-WWAS5.002/S370	8052050	8050780	8050186
			24V <sub>AC/DC</sub>	Suppressor diode	PVC	GY		VA22-24.3-L-AL-WWAS5.002/P00	8052227	8052228	8052229
24V <sub>AC/DC</sub>			Suppressor diode	PVC*	GY		VA22-24.3-L-AL-WWAS5.002/P01	8052263	8052264	8052265	
3+PE wire		24V <sub>AC/DC</sub>	without	PUR*	BK		VA41-24.2-L-AL-WWAS5/S370	8052052	8050788	8050188	
		24V <sub>AC/DC</sub>	without	PVC	GY		VA41-24.2-L-AL-WWAS5/P00	8052233	8052234	8052235	
		24V <sub>AC/DC</sub>	without	PVC*	GY		VA41-24.2-L-AL-WWAS5/P01	8052269	8052270	8052271	
	2+PE, PE bridged	24V <sub>AC/DC</sub>	Suppressor diode	PUR*	BK		VB21-24.3-L-AL-WAS5.002/S370	8052053	8050790	8050791	
		24V <sub>AC/DC</sub>	Suppressor diode	PVC	GY		VB21-24.3-L-AL-WAS5.002/P00	8052236	8052237	8052238	
		24V <sub>AC/DC</sub>	Suppressor diode	PVC*	GY		VB21-24.3-L-AL-WAS5.002/P01	8052272	8052273	8052274	
	2+PE, PE bridged	24V <sub>AC/DC</sub>	Suppressor diode	PUR*	BK		VB21-24.3-L-AL-WWAS5.002/S370	8052054	8050797	8050189	
		24V <sub>AC/DC</sub>	Suppressor diode	PVC	GY		VB21-24.3-L-AL-WWAS5.002/P00	8052239	8052240	8052241	
		24V <sub>AC/DC</sub>	Suppressor diode	PVC*	GY		VB21-24.3-L-AL-WWAS5.002/P01	8052275	8052276	8052277	
	2+PE, PE bridged	24V <sub>AC/DC</sub>	Suppressor diode	PUR*	BK		VB121-24.3-L-AL-WAS5.002/S370	8049278	8050800	8050801	
		24V <sub>AC/DC</sub>	Suppressor diode	PVC	GY		VB121-24.3-L-AL-WAS5.002/P00	8052242	8052243	8052244	
		24V <sub>AC/DC</sub>	Suppressor diode	PVC*	GY		VB121-24.3-L-AL-WAS5.002/P01	8052278	8052279	8052280	
	2+PE, PE bridged	24V <sub>AC/DC</sub>	Suppressor diode	PUR*	BK		VB121-24.3-L-AL-WWAS5.002/S370	8049279	8050804	8050805	
		24V <sub>AC/DC</sub>	Suppressor diode	PVC	GY		VB121-24.3-L-AL-WWAS5.002/P00	8052245	8052246	8052247	
		24V <sub>AC/DC</sub>	Suppressor diode	PVC*	GY		VB121-24.3-L-AL-WWAS5.002/P01	8052281	8052282	8052283	

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.


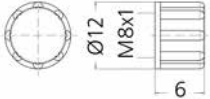

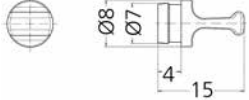

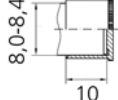

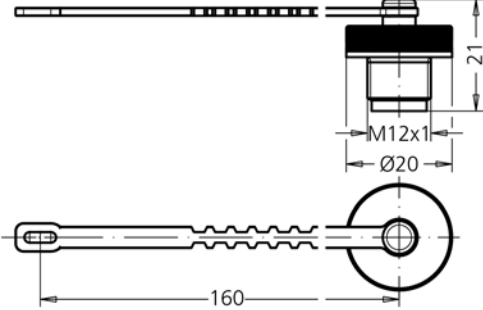

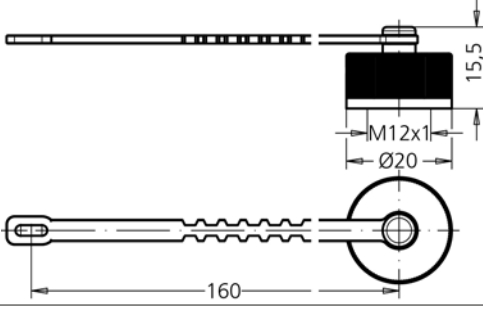

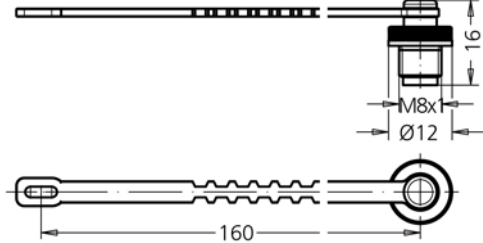
		Pins	Body		Cable			Item description	L / L2 = cable length		
			U[ <i>max</i> ]	Circuit	Material	Color	L1[m]		2m / 1m	5m / 2m	10m / 5m
	Connection cable female, Valve C, angled	2+PE, PE bridged	24V <sub>AC/DC</sub>	Z-diode	PUR*	BK	VC22-24.4-L-AL-WAS5.002/S370	8052055	8050807	8050190	
			24V <sub>AC/DC</sub>	Z-diode	PVC	GY	VC22-24.4-L-AL-WAS5.002/P00	8052248	8052249	8052250	
			24V <sub>AC/DC</sub>	Z-diode	PVC*	GY	VC22-24.4-L-AL-WAS5.002/P01	8052284	8052285	8052286	
	Connection cable female, Valve C, angled	2+PE, PE bridged	24V <sub>AC/DC</sub>	Z-diode	PUR*	BK	VC22-24.4-L-AL-WWAS5.002/S370	8052056	8050813	8050191	
			24V <sub>AC/DC</sub>	Z-diode	PVC	GY	VC22-24.4-L-AL-WWAS5.002/P00	8052251	8052252	8052253	
			24V <sub>AC/DC</sub>	Z-diode	PVC*	GY	VC22-24.4-L-AL-WWAS5.002/P01	8052287	8052288	8052289	
	Connection cable female, Valve CI, angled	2+PE, PE bridged	24V <sub>AC/DC</sub>	Z-diode	PUR*	BK	VCI22-24.4-L-AL-WAS5.002/S370	8052057	8050810	8050192	
			24V <sub>AC/DC</sub>	Z-diode	PVC	GY	VCI22-24.4-L-AL-WAS5.002/P00	8052254	8052255	8052256	
			24V <sub>AC/DC</sub>	Z-diode	PVC*	GY	VCI22-24.4-L-AL-WAS5.002/P01	8052290	8052291	8052292	
	Connection cable female, Valve CI, angled	2+PE, PE bridged	24V <sub>AC/DC</sub>	Z-diode	PUR*	BK	VCI22-24.4-L-AL-WWAS5.002/S370	8052058	8050816	8050193	
			24V <sub>AC/DC</sub>	Z-diode	PVC	GY	VCI22-24.4-L-AL-WWAS5.002/P00	8052257	8052258	8052259	
			24V <sub>AC/DC</sub>	Z-diode	PVC*	GY	VCI22-24.4-L-AL-WWAS5.002/P01	8052293	8052294	8052296	
	Adapter female, Valve A, angled	2+PE, PE bridged	24V <sub>AC/DC</sub>	Suppressor diode			VA22-24.3-WAS5.002	8055768			
			24V <sub>AC/DC</sub>	without			VA22-24.1-WAS5.002	8055767			
			24V <sub>DC</sub>	without			VA41-24.2-WAS5	8055769			
			60V <sub>AC/DC</sub>	without			VA22-60.0-WAS5.002	8055770			

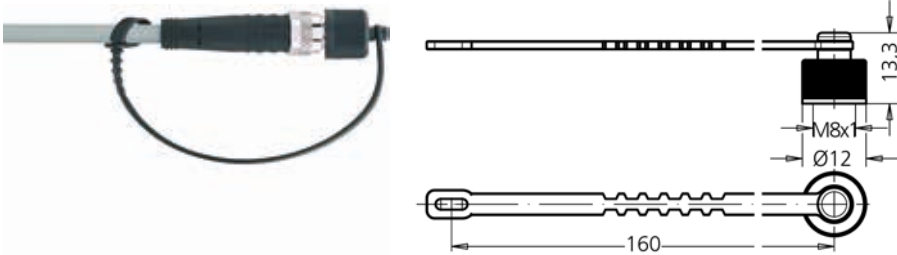

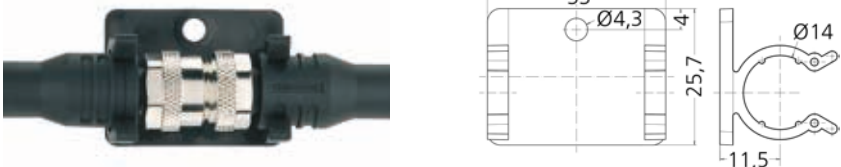
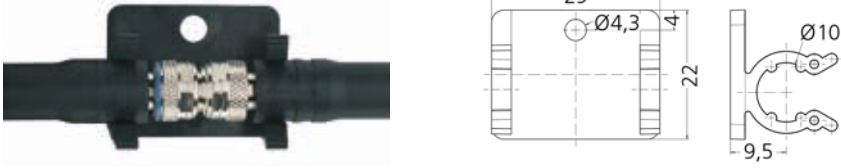

\* Standard cable-lengths for extension cables: 2m, 5m, or 10m. For connection cables: 1m, 2m, or 5m. Wire length for receptacles: 0.5m (0.2m for POWER). Other cable- and wire lengths are available upon request.


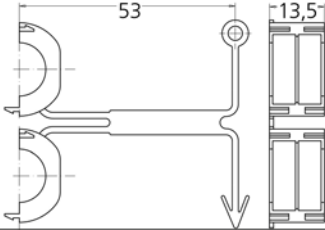

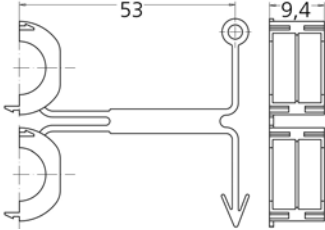


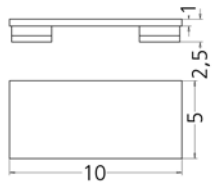
				Color	Material	L [m]	Item-No.
		Safety-stopper, M12x1	cover for M12x1 female	BK, similar RAL9005			8000004
		Safety-stopper, M12x1	cover for M12x1 female	VT, similar RAL4001			8041992
		Safety-stopper, M12x1	cover for M12x1 female	BU, similar RAL5012			8041993
		Safety-stopper, M12x1	cover for M12x1 female	GN, similar RAL6018			8059233
		Safety-cap, M12x1	cover for M12x1 male	YE, similar RAL1021			8000031
		Safety-cap, M12x1	cover for M12x1 male	BK, similar RAL9005			8036742
		Safety-cap, M12x1	cover for M12x1 male	GY, similar RAL7053			8041994
		Safety-cap, M12x1	cover for M12x1 male	VT, similar RAL4001			8041995
		Safety-cap, M12x1	cover for M12x1 male	BU, similar RAL5012			8041996
		Dustproof-cap, M12x1	cover for M12x1 male	transparent			8009778
		Dustproof-cap, M12x1	cover for M12x1 female and male	BK, similar RAL9005			8043617
		Safety-stopper, M8x1	cover for M8x1 female	BK, similar RAL9005			8015075



				Color	Material	L [m]	Item-No.
		Safety-cap, M8x1	cover for M8x1 male	BK, similar RAL9005			8041582
		Safety-stopper, Ø8mm snap	cover for Ø8mm snap female	BK, similar RAL9005			8010971
		Safety-cap, Ø8mm snap	cover for Ø8mm snap female and male	YE, similar RAL1018	TPE		8067188
		Safety-stopper captiv	cover for M12x1 female	BK			8048568
		Safety-cap captiv	cover for M12x1 male	BK			8048569
		Safety-stopper captiv	cover for M8x1 female	BK			8048567


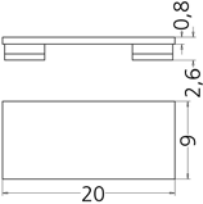

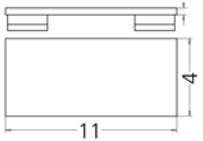

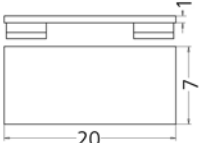

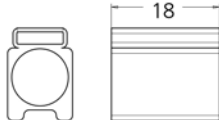


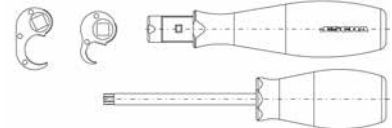
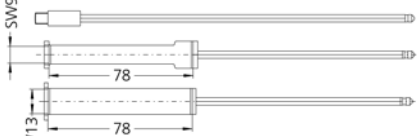


			Color	Material	L [m]	Item-No.
	Safety-cap captiv	cover for M8x1 male	BK			8048566
	Adapter piece, M12x1, with protective tubing		BK		2	8055809
	Adapter piece, M12x1, with protective tubing		BK		5	8055810
	Adapter piece, M12x1, with protective tubing		BK		10	8055811
	Mounting-clip, M12x1		BK	POM		8047660
	Mounting-set, M12x1 10x Clip + 10x screws M4x8		BK	POM		8047664
	Mounting-clip, M8x1		BK	POM		8047658
	Mounting-set, M8x1 10x Clip + 10x screws M4x8		BK	POM		8047663
	Mounting-set, S89 2x carrier plates + 4x screws M4x25 4x nuts M4		BK	PA		8036078









		Color	Material	L [m]	Item-No.
		BK	PA		8040501
		BK	PA		8040691

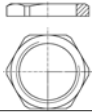
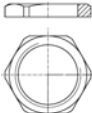
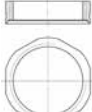
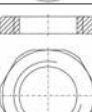
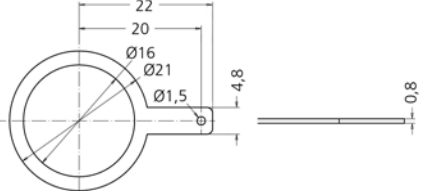
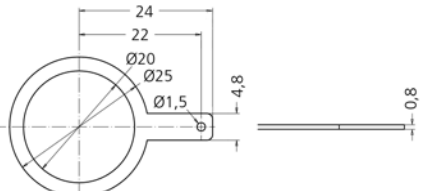


	Color	Material	L [m]	Item-No.
Marking rings Ø 9mm PU: 100 pcs. in polybag	WH, similar RAL9002	POM		8063523
Marking rings Ø 9mm PU: 100 pcs. in polybag	RD, similar RAL3020	POM		8063524
Marking rings Ø 9mm PU: 100 pcs. in polybag	BU, similar RAL5041	POM		8063525
Marking rings Ø 9mm PU: 100 pcs. in polybag	YE, similar RAL1018	POM		8063526
Marking rings Ø 9mm PU: 100 pcs. in polybag	GN, similar RAL6018	POM		8063527
Marking rings Ø 9mm PU: 100 pcs. in polybag	BK, similar RAL9004	POM		8063528
Marking rings Ø 9mm PU: 100 pcs. in polybag	OG, similar RAL2008	POM		8063529
Marking rings Ø 9mm PU: 100 pcs. in polybag	VT, similar RAL4006	POM		8063530
Marking rings Ø 9mm PU: 100 pcs. in polybag	GY, similar RAL7035	POM		8063531
Marking rings Ø 9mm PU: 100 pcs. in polybag	PK, similar RAL4003	POM		8063532
Marking rings Ø 9mm PU: 100 pcs. in polybag	RAL1002	POM		8063533

Labels for I/O-junction M8x1	WH			8011349
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			Color	Material	L [m]	Item-No.
		Labels for I/O-junction M12x1	WH			8015002
		Labels for Valve connector AA, B, BI, C, CI	WH			8047109
		Labels for Valve connector A	WH			8047110
		Label-carrier Ø 3.5...6.0mm	transparent	PVC		8000052
		Label-carrier Ø 6.0...10.0mm	transparent	PVC		8000060
		Label-carrier Ø 3.5...6.0mm	transparent	thermoplastical ESC (halogen-free)		8000091
		Label-carrier Ø 6.0...9.0mm	transparent	thermoplastical ESC (halogen-free)		8000092
		Torque-wrench set in wallet fully fitted for M8x1, M12x1 (knurl, hexagon-nut)				8055431
		Adapter A/F for Food & Beverage hygienic M12x1				8063392
		Cable Stripper				8066217

		Color	Material	L [m]	Item-No.
	Cable Stripping Tool 4.40 – 7.00mm				8066215
	Cable Stripping Tool 3.20 – 4.40mm				8066216
	Fixing screw for valve connectors A, B, BI		V4A		8060907
	Spare nuts for receptacle	For Receptacle M8x1 PFKS, PFS Wrenchsize: A/F10 Height: 2mm	Metal, CuZn, nickel-plated		8004923
	Spare nuts for receptacle	For Receptacle M8x1 PFSF Wrenchsize: A/F10 Height: 2mm	Metal, CuZn, nickel-plated		8004971
	Spare nuts for receptacle	For Receptacle M12x1 FSF Wrenchsize: A/F16 Height: 3mm	Metal, CuZn, nickel-plated		8004930
	Spare nuts for receptacle	For Receptacle M12x1 FKD, FSD PG9 Wrenchsize: A/F17 Height: 6mm	Metal, CuZn, nickel-plated		8004874
	Spare nuts for receptacle	For Receptacle M12x1 FKD, FSD M16 Wrenchsize: A/F17 Height: 6mm	Metal, CuZn, nickel-plated		8027491

			Color	Material	L [m]	Item-No.
	Spare nuts for receptacle	For Receptacle M12x1 PG9 Wrenchsize: A/F18 Height: 3mm		Metal, CuZn, nickel-plated		8004913
	Spare nuts for receptacle	For Receptacle M12x1 M16x1.5 Wrenchsize: A/F19 Height: 3mm		Metal, CuZn, nickel-plated		8029359
	Spare nuts for receptacle	For Receptacle M12x1 FKD, FSD, M20 Wrenchsize: A/F22 Height: 6mm		Metal, CuZn, nickel-plated		8027492
	Spare nuts for receptacle	For Receptacle M12x1 M20x1.5 Wrenchsize: A/F24 Height: 3mm		Metal, CuZn, nickel-plated		8029360
	Solder tags, M16x1.5 for grounding of receptacle housings			Metal, CuZn, nickel-plated		8036043
	Solder tags, M20x1.5 for grounding of receptacle housing			Metal, CuZn, nickel-plated		8036044



		P00	P01®	S370®   S370GY®	S7400® robotic	S3930	S2430	S5015®   S5025®
Materials	Jacket	PVC	PVC	PUR, halogen-free	PUR, halogen-free	TPE, halogen-free	PTFE(5Y)	PUR, halogen-free
	Insulation	PVC	PVC	PP, halogen-free	PP, halogen-free	TPE, halogen-free	PTFE(5Y)	PP, halogen-free
	Color outer-jacket (similar)	RAL7040	RAL7040	RAL9005   RAL7040	RAL2003	RAL7035	RAL9003	RAL9005
Applications	Machinery-, equipment manufacturing	★★★★	★★★★	★★★★	★★★★	★	★	★★★★
	Automotive industry	★★	★★	★★★★	★★★★	★★★★	★★	★★★★
	Robotics	★	★	★★★★	★★★★	★★★★	★★	★★★★
	Food and beverage industry	★★★★	★★★★	★	★	★★★★	★★	★
	Packaging and filling systems	★★★★	★★★★	★	★	★★★★	★★	★
	Building installations	★★	★★	★★	★★	★★	★★	★★
	Wind power plants	★★	★★	★★★★	★★★★	★★	★★★★	★★★★
Resistance	Flame retardant	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★
	Oil resistance	★★	★★	★★★★	★★★★	★★	★★★★	★★★★
	Weldfield immunity	★	★	★★★★	★★★★	★	★★	★★★★
	Drag-chain capability	★	★	★★★★	★★★★	★★	★★	★★★★
	Torsion capability			★★★	★★★★			★
	Acids- and alkali resistance	★	★	★	★	★★	★★★★	★★
	Seawater-resistant	★★	★★	★★	★★	★★★★	★★★★	★★
	Ozone- and UV-resistance	★	★	★★★★	★★★★	★★	★★★★	★★★★
	Hydrolysis strength	★★	★★	★★	★★	★★★★	★★★★	★★
	Microbes strength	★★	★★	★★	★★	★★★★	★★★★	★★
Features	Rated voltage	≤300V	≤300V	≤300V	≤300V	≤250V <sub>AC</sub>	≤250V	VDE U <sub>0</sub> /U: 600V/1.000V
	Bending strength (repeated)	10xØ	10xØ	10xØ	10xØ	10xØ	10xØ	7.5xØ   10xØ
	Bending strength (single)	5xØ	5xØ	5xØ	5xØ	5xØ	5xØ	4 xØ
	Temperature range (repeated)	0°C...+80°C	0°C...+80°C	-30°C...+90°C	-30°C...+90°C	-25°C...+105°C	k. A.	-40°C...+90°C
	Temperature range (single)	-25°C...+80°C	-25°C...+80°C	-40°C...+90°C	-40°C...+90°C	-40°C...+105°C	-190°C...+260°C	-50°C...+90°C
	Shielding	optional	optional	optional	no	optional	optional	no
Certifications	ROHS	✓	✓	✓	✓	✓	✓	✓
	UL and/or CSA		✓	✓	✓			✓
	GOST	✓	✓	✓	✓	✓	✓	✓
	ECOLAB	✓				✓		
	ESCHA Product line	AL   BL   SV   FB   NM   V	AL   BL   SV   NM   V	AL   BL   SV   NM   V	AL	FB	HT	POWER





Cat5e   S2171®	Cat5   S3400®	Cat7   S3500®	Cat5e   S3800®	S1800®	S2800®	
outside PUR11Y, inside FRNC	PUR, F45052-F5100	PUR11Y	outside PUR11Y, inside FRNC	PUR	PUR	Jacket
PE2Y, halogen-free	PP	PE02Y, foamed	PE2Y, halogen-free	PE, foamed	Signal: PE, Power: PP	Insulation
RAL6018	RAL6018	RAL6018	RAL3020	RAL4001	RAL9005	Color outer-jacket (similar)
★★	★	★	★	★★	★★	Machinery-, equipment manufacturing
★★★★	★★★★★	★★★★	★★★★	★★★★	★★★★	Automotive industry
★★	★★	★★	★★	★★	★★	Robotics
★	★	★	★	★	★	Food and beverage industry
★	★	★	★	★	★	Packaging and filling systems
★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	Building installations
★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	Wind power plants
★★★★	★★	★★★★	★★★★	★★★★	★★★★	Flame retardant
★★★★	★★★★	★★★★	★★★★	★★	★★	Oil resistance
★	★	★	★	★	★	Weldfield immunity
★★	★★★★	★	★★★★	★★	★	Drag-chain capability
★	★	★	★	★	★	Torsion capability
						Acids- and alkali resistance
★★	★★	★★	★★	★★	★★	Seawater-resistant
★★	★★	★★	★★	★★	★★★★	Ozone- and UV-resistance
★★	★★	★★	★★	★★	★★	Hydrolysis strength
★★	★★	★★	★★	★★	★★	Microbes strength
600V (UL rating)	30V (UL rating)	30V (UL rating)	300V (UL rating)	300V	≤300V	Rated voltage
7.5xØ	7.5xØ	10xØ	8xØ	10xØ	10xØ	Bending strength (repeated)
5xØ	4xØ	5xØ	4xØ	5xØ	5xØ	Bending strength (single)
-40°C...+70°C	-40°C...+80°C	-40°C...+80°C	-40°C...+80°C	-25°C...+80°C	-25°C...+80°C	Temperature range (repeated)
				-50°C...+80°C	-50°C...+80°C	Temperature range (single)
yes	yes	yes	yes	yes	yes	Shielding
✓	✓	✓	✓	✓	✓	ROHS
✓	✓	✓	✓	✓	✓	UL and/or CSA
✓	✓	✓	✓	✓	✓	GOST
						ECOLAB
IE   Profinet	IE   EtherCat	Industrial Ethernet	IE   Sercos®	Profibus	CANopen/DeviceNet	ESCHA Product line






Materials









Applications






Resistance

Features

Certifications

	Wire	Wire color	Conductor structure	ø [mm]	Item description	L = 100m
	3	BN, BU, BK	32 x 0.10 mm	4.60	LiF9Y11YFHF 3x0,25 mm <sup>2</sup>	8058484
	4	BN, WH, BU, BK	32 x 0.10 mm	4.80	LiF9YH-11YH 4x0,25 (32x0,10)	8064369
	3	BN, BU, BK	42 x 0.10 mm	4.80	LiF9Y11YFHF 3x0,34 mm <sup>2</sup>	8058485
	4	BN, WH, BU, BK	42 x 0.10 mm	5.20	LiF9Y11YFHF 4x0,34 mm <sup>2</sup>	8057309
	4+PE	BN, WH, BU, BK, GN/YE	42 x 0.10 mm	5.60	LiF9Y11YFHF 4x0,34+1x0,34 mm <sup>2</sup>	8058487
	3	BN, BU, BK	42 x 0.10 mm	4.00	LiF9YH-11YH 3x0,25	8058490
	4	BN, WH, BU, BK	42 x 0.10 mm	4.30	LiF9YH-11YH 4x0,25	8058491
	5	BN, WH, BU, BK, GY	14 x 0.15 mm	4.50	LiF9YH-11YH 5x0,25	8058492
	3	BN, BU, BK	42 x 0.10 mm	4.30	LiF9YH-11YH 3x0,34	8046603
	4	BN, WH, BU, BK	42 x 0.10 mm	4.70	LiF9YH-11YH 4x0,34	8045519
	4+PE	BN, WH, BU, BK, GN/YE	42 x 0.10 mm	5.20	LiF9YH-11YH 4x0,34+1x0,34	8048725
	5	BN, WH, BU, BK, GY	42 x 0.10 mm	5.20	LiF9YH-11YH 5x0,34	8047757
	8	WH, BN, GN, YE, GY, PK, BU, RD	32 x 0.10 mm	5.90	LiF9YH11YH 8x0,25	8055605
	12	BN, BU, WH, GN, PK, YE, BK, GY, RD, VT, GY/PK, RD/BU	18 x 0.10 mm	5.60	LiFYY 12 x 0,14 mm <sup>2</sup>	8055606
	3	BN, BU, BK	42 x 0.10 mm	4.30	LiF9YH-11YH 3x0,25	8058493
	4	BN, WH, BU, BK	32 x 0.10 mm	4.30	LiF9YH-11YH 4x0,25 (32x0,10)	8064368
	3	BN, BU, BK	42 x 0.10 mm	4.30	LiF9YH-11YH 3x0,34	8058494
	4	BN, WH, BU, BK	42 x 0.10 mm	4.70	LiF9YH-11YH 4x0,34	8058495
	4+PE	BN, WH, BU, BK, GN/YE	42 x 0.10 mm	5.20	LiF9YH-11YH 4x0,34+1x0,34	8058496
	3	BN, BU, BK	42 x 0.10 mm	4.80	LiF9YC11YFHF 3x0,34	8058488
	4	BN, WH, BU, BK	42 x 0.10 mm	5.10	LiF9YC11YFHF 4x0,34	8047431
	5	BN, WH, BU, BK, GY	42 x 0.10 mm	5.60	LiF9YC11YFHF sw 5x0,34	8046513
	8	WH, BN, GN, YE, GY, PK, BU, RD	32 x 0.10 mm	6.30	LiF9YHC11YH 8x0,25	8048963
	12	BN, BU, WH, GN, PK, YE, BK, GY, RD, VT, GY/PK, RD/BU	18 x 0.10 mm	6.00	Li9YHC11YH 12x0,14	8058489
	3	BN, BU, BK	14 x 0.15 mm	4.00	LiYY-OB 3x0,25 (14x0,15)	8058513
	4	BN, WH, BU, BK	14 x 0.15 mm	4.20	LiYY-OB 4x0,25 (14x0,15)	8056855
	5	BN, WH, BU, BK, GY	14 x 0.15 mm	4.50	LiYY-OB 5x0,25 (14x0,15)	8058514
	3	BN, BU, BK	19 x 0.15 mm	4.20	LiYY-OB 3x0,34 (19x0,15)	8058515
	4	BN, WH, BU, BK	19 x 0.15 mm	4.50	LiYY-OB 4x0,34 (19x0,15)	8057030
	4+PE	BN, WH, BU, BK, GN/YE	19 x 0.15 mm	4.90	LiYY-JB 4x0,34+1x0,34 (19x0,15)	8058516
	5	BN, WH, BU, BK, GY	19 x 0.15 mm	4.90	LiYY-OB 5x0,34 (19x0,15)	8058517
	8	WH, BN, GN, YE, GY, PK, BU, RD	14 x 0.15 mm	5.70	LiYY-OB 8x0,25 (14x0,15)	8058519
	12	BN, BU, WH, GN, PK, YE, BK, GY, RD, VT, GY/PK, RD/BU	18 x 0.10 mm	6.10	LiYY-OB 12x0,14 (18x0,10)	8058520

	Wire	Wire color	Conductor structure	ø [mm]	Item description	L = 100m
	3	BN, BU, BK	14 x 0.15 mm	4.60	LiYCY-OB 3x0,25 (14x0,15)	8058497
	4	BN, WH, BU, BK	14 x 0.15 mm	4.90	LiYCY-OB 4x0,25 (14x0,15)	8058498
	5	BN, WH, BU, BK, GY	19 x 0.15 mm	5.50	LiYCY-OB 5x0,34 (19x0,15)	8053403
	3	BN, BU, BK	19 x 0.15 mm	4.80	LiYCY-OB 3x0,34 (19x0,15)	8058502
	4	BN, WH, BU, BK	19 x 0.15 mm	5.10	LiYCY-OB 4x0,34 (19x0,15)	8058503
	5	BN, WH, BU, BK, GY	19 x 0.15 mm	5.50	LiYCY-OB 5x0,34 (19x0,15)	8058504
	8	WH, BN, GN, YE, GY, PK, BU, RD	14 x 0.15 mm	6.70	LiYCY-OB 8x0,25 (14x0,15)	8042487
	12	BN, BU, WH, GN, PK, YE, BK, GY, RD, VT, GY/PK, RD/BU	18 x 0.10 mm	6.60	LiYCY-OB 12x0,14 (18x0,10)	8058505
	3	BN, BU, BK	14 x 0.15 mm	4.30	LiYY-OB 3x 0,25	8058521
	4	BN, WH, BU, BK	14 x 0.15 mm	4.70	LiYY-OB 4x0,25	8058522
	3	BN, BU, BK	19 x 0.15 mm	4.60	LiYY-OB 3x0,34mm <sup>2</sup>	8058523
	4	BN, WH, BU, BK	19 x 0.15 mm	4.90	LiYY-OB 4x0,34mm <sup>2</sup>	8058524
	4+PE	BN, WH, BU, BK, GN/YE	19 x 0.15 mm	5.30	LiYY-JB 4x0,34+1x0,34mm <sup>2</sup>	8058525
	5	BN, WH, BU, BK, GY	19 x 0.15 mm	5.30	LiYY-OB 5x0,34mm <sup>2</sup>	8058526
	8	WH, BN, GN, YE, GY, PK, BU, RD	14 x 0.15 mm	6.20	LiYY-OB 8x0,25	8058527
	12	BN, BU, WH, GN, PK, YE, BK, GY, RD, VT, GY/PK, RD/BU	18 x 0.10 mm	6.10	LiYY-OB 12x0,14	8058528
	3	BN, BU, BK	14 x 0.15 mm	4.80	LiYCY-OB 3x0,25	8058506
	4	BN, WH, BU, BK	14 x 0.15 mm	5.10	LiYCY-OB 4x0,25	8058507
	3	BN, BU, BK	19 x 0.15 mm	5.00	LiYCY-OB 3x0,34	8058508
	4	BN, WH, BU, BK	19 x 0.15 mm	5.30	LiYCY-OB 4x0,34	8058509
	5	BN, WH, BU, BK, GY	19 x 0.15 mm	5.90	LiYCY-OB 5x0,34	8058510
	8	WH, BN, GN, YE, GY, PK, BU, RD	14 x 0.15 mm	6.70	LiYCY-OB 8x0,25	8058511
	12	BN, BU, WH, GN, PK, YE, BK, GY, RD, VT, GY/PK, RD/BU	18 x 0.10 mm	6.60	LiYCY-OB 12x0,14	8058512
	4	BN, WH, BU, BK	42 x 0.10 mm	4.60	SU (4 Li12Y 0,34) 14Y Sarlink 3139D,	8058694
	5	BN, WH, BU, BK, GY	7 x 0.254 mm	3.80	Li5Y5Y-OB 5xAWG22	8037921
	8	WH, BN, GN, YE, GY, PK, BU, RD	19 x 0.127 mm	4.70	LiF5Y5Y-OB 8xAWG24	8047617
	12	BN, BU, WH, GN, PK, YE, BK, GY, RD, VT, GY/PK, RD/BU	19 x 0.102 mm	4.30	LiF5Y5Y-OB 12x0,14mm <sup>2</sup>	8058529
	4	YE, OG, WH, BU	7 x 0.25 mm	6,50	2YH(ST)C 11Y1x4xAWG22	8036284
	4	BU, OG, WH/BU, WH/OG	19 x 0.10 mm	4.80	LI9YC(ST)11Y 1x4xAWG26 GN, UL-Style 20963	8055896
	8	WH/OG,OG; WH/GN,GN; WH/BN,BN; WH/BU,BU	7 x 0.16 mm	6,40	LI02YSC 11Y 4x2x0,14 PIMF FRNC GN Cat. 7	8053361

	Wire	Wire color	Conductor structure	ø [mm]	Item description	L = 100m
	4	OG, WH, BU, YE	7 x 0.254 mm	6.50	2YH(ST)C11Y 1x4xAWG22	8055782
	8	RD, GN	19 x 0.15 mm	7.60	Li02YS-STCB11Y 1x2x0,34	8043857
	4	RD, BK, WH, BU	19 x 0.13mm, 19 x 0.15mm	6.7	LIV02YS(ST)-CB11Y (2x0,25)+(2x0,34)	8047939
	2+PE	BN, BU, GN/YE	extra finely stranded class 6	8.50	LiF9YH-11YH 3G1,5	8064082
	3+PE	GY, BK, BN, GN/YE	extra finely stranded class 6	9.60	LiF9YH-11YH 4G1,5	8070663
	4	BN, WH, BU, BK	extra finely stranded class 6	9.60	LiF9YH-11YH 4x1,5	8064083
	4	BN, WH, BU, BK	extra finely stranded class 6	11.00	LiF9YH-11YH 4x2,5	8064084



## TECHNICAL INFORMATION

### Comprehensive Information on Connectors

The respective requirements of machinery specifications are binding for the user with connector applications. The relevant standards and specifications according to which our products are made and tested are explained in the following.

### DINVDE0627; 2012-03 | Connectors and Connecting Devices

This standard has been under revision for a long time and will soon be internationally valid. The standard is valid for connectors and connecting devices with rated voltages up to 1000V ~ or 1500V – and rated currents up to 125A per contact intended for connecting assemblies or components in or on machinery or measuring-, instrumentation- or control circuits considering safety aspects. It is also valid for connectors and connecting devices on household appliances as well as information-processing units.

### IEC 60664-1; 2008-01 | Coordination of Isolation

This international standard, which complies with the German standard DINVDE0110-1, April 97 edition, is a basic safety standard for achieving the coordination of isolation. It contains the required data to determine air distances, creep distances and solid insulations for electrical devices (e.g. connectors). This is realised considering the micro-ambient conditions and other loads they are exposed to in the course of the expected service life. Processes for the voltage test related to the coordination of isolation are included.

### IEC60512; May1994 | Measuring- and Testing-Process

This international standard corresponds to the European standard DINEN60512 and has replaced the previous German standard DIN41640. It determines the measuring- and testing-processes for electromechanical components (e.g. connectors). The standard is very comprehensive and consists of 9 sections in total in which all electrical, mechanical and climatic tests are described. In addition, the standard contains tests on soldering ability, density, shielding and cable pull-out support.

### IEC60529; 2009-09 | Degrees of Protection by Housing (IP-Code)

This international standard corresponds to the European standard DIN EN 60529 and complies with the German standard DINVDE0470-1, November 92 edition. It determines the designation, requirements and tests for the classification of protection degrees by housings for electrical devices (e.g. connectors). Thereby, protection against access to dangerous parts, protection against solid foreign bodies and protection against water are evaluated. The degree of protection is designated by an IP-Code.

### IEC60068-1; March1995, Environmental Tests

This international standard which complies with the European standard DINEN60068-1, contains basic determinations on environmental tests and degree of test-precision. This testing process serves to trace the resistivity of components to expected environmental influences under operating conditions. Typical tests are: coldness, dry and humid heat, shock, vibration, temperature fluctuation and others.

Changes in design are subject to further notice for reasons of quality improvements, refinement or production optimisation. The technical data stated in the catalogue refer to connectors, i.e. components which must not be plugged or unplugged under voltage. In order to secure the correct use of the products, the technical data are listed. It is possible to select the right products using these data. The products are described as well, however the properties are not assured. All ESCHA connectors have been developed and designed for applications in plant-, control and electric device version. It is up to the user to verify the possibility of using the connectors in other application areas as well. Data on properties and sealing refer to torques of 1.0Nm for M12x1-round connectors or 0.6Nm for M8x1-round connectors. All data concerning the IP-degrees of protection are only guaranteed for the connections of ESCHA components.

## TECHNICAL INFORMATION

Characteristic	Standard 1)	Note
Protection class housing	IEC 60529	Data in plugged condition
Mechanical life cycle	IEC 60512-5/9a	Test is done without electrical load
Rated voltage	IEC 60664-1	The stated value is defined in connection with degree of pollution and overvoltage category
Degree of pollution	IEC 60664-1	
Current load	IEC 60512-3/5b	
Contact resistance	IEC 60512-2/2a	Contact resistance contact-pin/contact-bush in plugged condition throughout a defined range
Insulation resistance	IEC 60512-2/3a	Insulation between two conducting parts (dependent on material)

	Digit 1	Digit 2
0	Unprotected	Unprotected
1	Protected against access to dangerous parts by hand pressure. Protected against solid foreign bodies Ø50mm.	Protected against dripping water
2	Protected against access to dangerous parts by fingers. Protected against solid foreign bodies Ø12.5mm.	Protected against dripping water when housing is inclined up to 15°
3	Protected against access to dangerous parts by a tool. Protected solid foreign bodies Ø2.5mm.	Protected against spraying water
4	Protected against access to dangerous parts by a wire. Protected against solid foreign bodies Ø1mm.	Protected against sprinkling water
5	Protected against access to dangerous parts by a wire. Protected against dust.	Protected against water-jet
6	Protected against access to dangerous parts by wire. Protected against dust.	Protected against a strong water-jet
7		Protected against effects due to temporary immersion in water.
8		Protected against effects due to permanent immersion in water. (Conditions to be agreed upon between manufacturer and user. However, conditions must be more difficult than with IP_7).
9		Protected against water by high-pressure steam-jet cleaning

## Supplementary Technical Data

<sup>1)</sup>The technical data represent initial values which can change depending on load. The housings have to be included in the device protective-measures when mounting electrically conductive receptacle housings. The cables to be connected should be insulated in such a way that the distances to electrically conductive parts are not reduced. When soldering the cables, care must be taken that none of the single wires is projecting which can cause short circuits.

## Degrees of Protection | IP: International Protection

For reasons of safety, connectors must be protected against environmental influences, e.g. dust, foreign bodies, touch, humidity and water. In case of industrial connectors, this protection must be provided for by the housing and its locking as well as the insulation on cable outlet.

The degrees of protection are indicated by an abbreviation consisting of two constant characteristic letters IP (International Protection) and two following digits for the protection degree. The first digit indicates the protection degree against touch and foreign bodies. The second digit indicates the protection against damaging ingress of water. All data are only valid in locked condition. Awarding degrees of protection is subject to a standardised testing procedure.

## TECHNICAL DATA

### Rated voltage

Specifies the maximum electrical voltage during standard operation. Operating properties of round connectors are related to rated voltage.

### Insulation resistance

The insulating capacity of a material is defined as separating adjacent contacts or a contact against ground at a high-impedance as possible according to IEC 60512-2, 3a and DIN EN 60512-2.

### Current load

According to DIN ISO 60512-3, the current load of a round connector defines the maximum permissible current permanently and concurrently flowing through all contacts at an ambient temperature of 40°C. The total current-related self-heating and ambient temperature must not exceed the maximum limit temperature of a round connector – defined by the thermal properties of the materials used. The so called derating-curve illustrates the relation between the current load of a round connector and its ambient temperature. In practice, possibly higher currents per contact are permissible as not all contacts are permanently energized at a maximum rate. Exact values are to be individually determined by testing.

### Isolation coordination (air- and creepage distance)

For electrical equipment in low-voltage installations (<1kV), DINEN60664 (DINVDE0110) describes the process of measuring the isolating air- and creepage distance. It defines minimum air distances (minimum distances between voltage carrying parts in the air) and minimum creepage distances (minimum distance between voltage carrying parts along an isolating surface) to avoid an electrical flashover. Minimum creepage distances depend on isolating material and degree of pollution.

### Degree of pollution

The degree of pollution (1-4) defines the quantity of pollution (solid, liquid or gaseous impurities), at which the dielectric strength and/or surface resistance are reduced. For industrial applications, a degree of pollution 3 is typical: conductive or dry, non-conductive pollution occurs. The latter can become conductive through the expected thawing.

### Mechanical life cycle

Defines the number of mating cycles (a mechanical connect- and disconnect process of a round connector), during which no abrasion of contact surfaces occurs and thus increasing contact resistance.

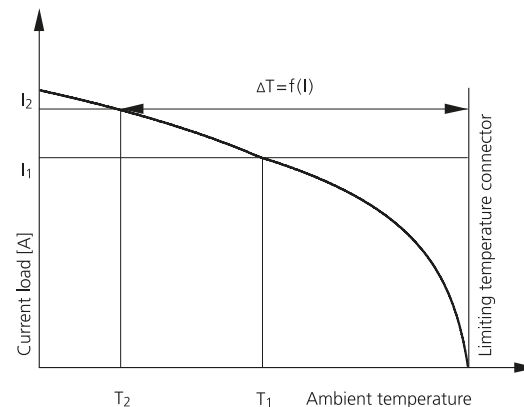


Fig 1. Derating-curve

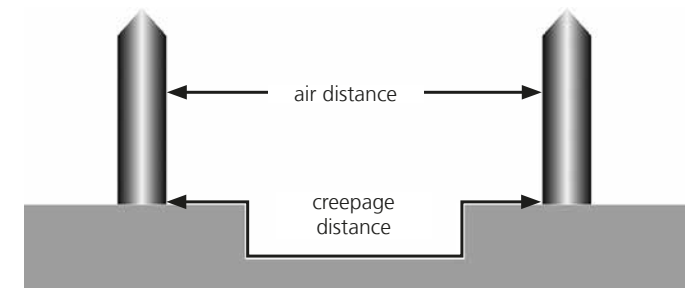


Fig 2. Isolation coordination



## TECHNICAL DATA

AWG	Wire structure [mm]	Wire diameter [mm]	Wire cross-section [mm <sup>2</sup> ]
30	1 x 0.25   7 x 0.10	0.25   0.36	0.05   0.06
28	1 x 0.32   7 x 0.13	0.32   0.38	0.08   0.09
26	1 x 0.4   7 x 1.16   19 x 0.10	0.40   0.48   0.51	0.13   0.14   0.15
24	1 x 0.51   17 x 0.20   19 x 0.13	0.51   0.61   0.64	0.21   0.22   0.25
22	1 x 0.64   7 x 0.25   19 x 0.16	0.64   0.76   0.81	0.33   0.34   0.38
20	1 x 0.81   7 x 0.32   19 x 0.20	0.81   0.97   1.02	0.52   0.56   0.60
18	1 x 1.02   19 x 0.25	1.02   1.27	0.82   0.93
16	19 x 0.29	1.44	1.25
14	19 x 0.36	1.80	1.93
12	19 x 0.46	2.29	3.16
10	37 x 0.40	3.10	4.65

Pg	Metric thread	max.Wrench width [mm]	max.Corner length [mm]
Pg7	M10x1.5   M12x1.5	16	18
Pg9   Pg11	M16x1.5	21	23
Pg13.5	M20x1.5	25	28

## CERTIFICATIONS

### UL (Underwriter Laboratories Inc.)

The certification of products, components or materials by the Underwriter Laboratories Inc. is the verified proof that it meets the specific safety requirements. UL-approvals are, above all, required for the American and Canadian market.

For relevant ESCHA products, component approvals (UL Recognized Component) apply, qualifying them as UL-approved components for installation into UL-approved systems. This component approval also holds for relevantly used cable qualities. Single cable qualities (see Standard Cable qualities table) carry the UL-Listing-certification mark (device approval), which guarantees compliance with the valid UL-safety standards.

### ECOLAB

ECOLAB supplies special detergents and disinfectants for the food processing industry. In the past, the company has offered ECOLAB-resistance tests to component manufacturers. Meanwhile, component suppliers have been provided with detergents for field tests. ESCHA is currently carrying out similar tests according to ECOLAB specifications in its own test lab.

### Conversion of American Wire Gauge, AWG in mm<sup>2</sup>

In some industrial areas, the American Wire Gauge is also used for cables. The following table serves the conversion from AWG in mm<sup>2</sup>. It should be taken into consideration that wires with the same AWG-number but different structures show slightly different cross sections.

### Overview Pg-thread vs. metric thread

(wrench width for cable screwing according to EN50262)

The interim period for DIN46320 "screwing for cables and conducting-lines with Pg-thread" expired on 31 December 1999. Since then, screwing for cables and conductinglines had to comply with the national standard 46319 before this was replaced by EN50262 on 1 March 2001.





#### FDA

The Food and Drug Administration (FDA) is a state-controlled, US-American agency in charge of food control and drugs approvals. It defines materials for food production that cause no interactions in the processing procedure. ESCHA exclusively uses FDA-approved materials for its Hygienic Design product line.

#### Guideline 2011/65/EU (RoHS - Restriction of [the use of certain] hazardous substances)

The EU-guideline restricting the use of certain hazardous substances in electrical- and electronic devices does not allow hazardous substances in devices and components above defined limits. Lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl (PBDE) are among the hazardous substances. For ESCHA products, this means lead-free soldering and no use of flame retardants in plastics and cables.

#### GOST-R (ГОСТ - Государственный Стандарт)

Importing goods into the Russian Federation requires the certification by the Federal Agency for Technical Regulation and Metrology which verifies product compliance with the Russian requirements, standards and quality standards.

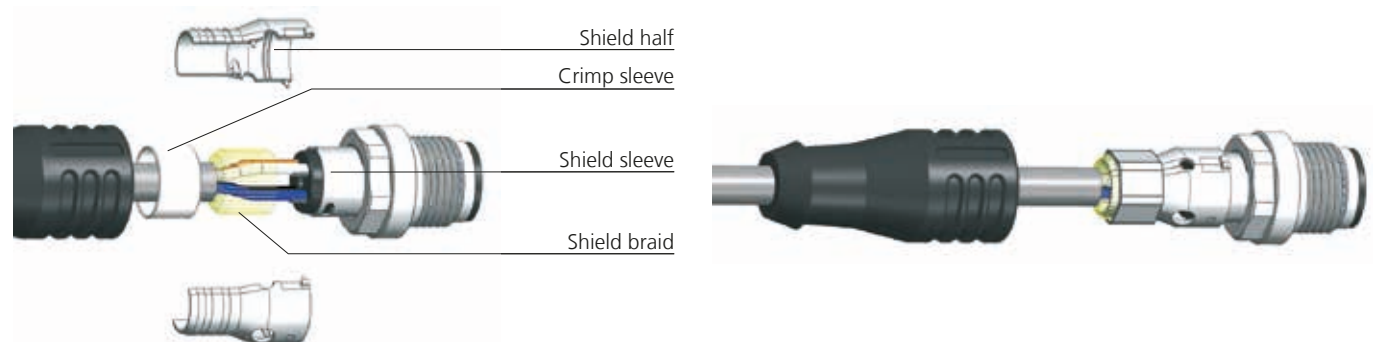
ESCHA connectors are electronic components and are not subject to CE-designation. This is confirmed by the European Commission directives for low-voltage- and EMC-guidelines.

#### Shielding | ESCHA two-component overmould shielding (ESCHA 2SSK)

EMC of devices has gained more significance since the publication of the law on electromagnetic compatibility. The devices have to be made in such a way that:

- The generation of electromagnetic interferences is limited to the extent that a proper operation of these devices is possible.
- The devices have an adequate stability against electromagnetic interferences in order that a proper operation is possible.

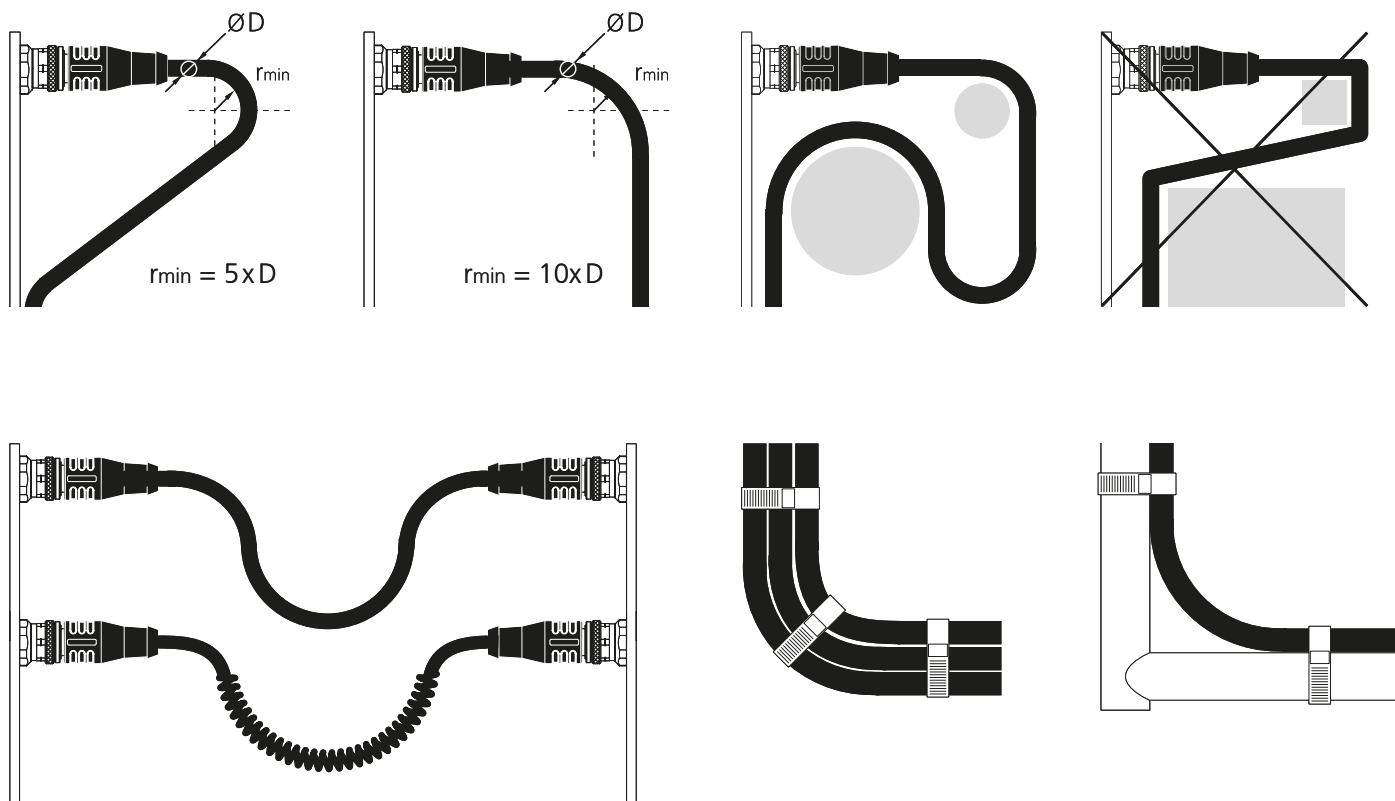
The ESCHA two-shell-shielding concept comprises an equipotential surface through two interconnected metal shells encapsulating the round connector at 360°. The shield braid of the molded cable is crimped all around on the shield sleeve. A twofold-overmold provides for 360°-shielding even at high mechanical stresses, dust- and waterproof at high pressure- and steam jet cleaning according to IP67 and IP69K.



The correct installation of the round connector and a professional wiring are the precondition for properties of a relevantly tight and reliable electrical connection guaranteed by the manufacturer. In order to avoid damage to a round connector and cable, the minimum bending radius of the cable ( $r_{min}$ ) is to be observed during the wiring.

Data lines are high-performance products. Avoid any mechanical influences like squeezing, edgy snapping and tractive forces during mounting and operating to ensure a permanent and safe data transmission. Be careful while mounting at sub-zero temperatures, as plastics boast different features at low temperatures and the end product might be damaged. When using cable ties for cable bundling or permanent wiring, the ties must not cut into or deform the cable to avoid short circuits, cable interruptions or a reduction of the dielectric strength.

In case of cord sets double ended, sufficient cable length between the connections should be observed in order to absorb the generated energy during movement. The use of cable loops, spiral lines or cable chains guarantees a high life cycle of the round connector system.



## Recommended tightening torque

The use of a torque application tool is recommended for tightening and loosening of round connectors. The recommendations base on internal tests and cover a majority of applications and product combinations. Due to the design variety of products available on the market, specifications have to be checked in individual cases.

Recommended tightening torque according to IEC 61076-2 test requirements:  
**0.6Nm for M8x1 round connectors | 1.0Nm for M12x1 round connectors**

Recommended tightening torque for receptacles according to IEC 61076-2 test requirements:  
**1.5Nm for M8x1 round connectors | 2.0Nm for M12x1 round connectors**

Torque-wrench set M8x1   M12x1	Item-No.
Torque-wrench-set in wallet fully fitted for M8x1   M12x1 (knurl, hexagon-nut)	8055431
Adapter A/F14 for Food&Beverage Hygienic Design M12x1 (single)	8063392

## Colour guide

WH	BN	GN	YE	GY	PK	BU	RD	BK	VT	GY/PK	RD/BU	WH/GN	BN/GN	WH/YE	YE/BN	WH/GY	GY/BN	GN/YE
white	brown	green	yellow	grey	pink	blue	red	black	violet	grey/pink	red/blue	white/green	brown/green	white/yellow	yellow/brown	white/grey	grey/brown	green/yellow

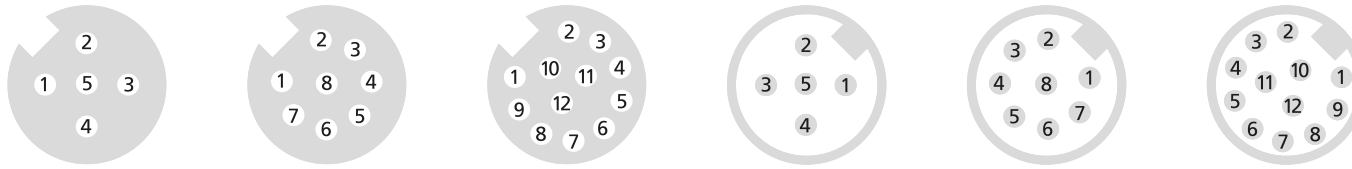
Pinout M8x1/Ø8mm snap  
 Sensor / actuator: AL | FB | HT



female

male

Pins	Contact											
	1	2	3	4	5							
3	BN		BU	BK								
4	BN	WH	BU	BK								
5	BN	WH	BU	BK	GY							



female

male

		Contact											
Pins	Coding	1	2	3	4	5	6	7	8	9	10	11	12
3	A	BN		BU	BK								
4	A	BN	WH	BU	BK								
4+PE	A	BN	WH	BU	BK	GN/YE							
5	A	BN	WH	BU	BK	GY							
8	A	WH	BN	GN	YE	GY	PK	BU	RD				
12	A	BN	BU	WH	GN	PK	YE	BK	GY	RD	VT	GY/PK	RD/BU

Pinout M12x1 | A  
Sensor / actuator: BL | AL | FB | HT



Coding S  
female

male

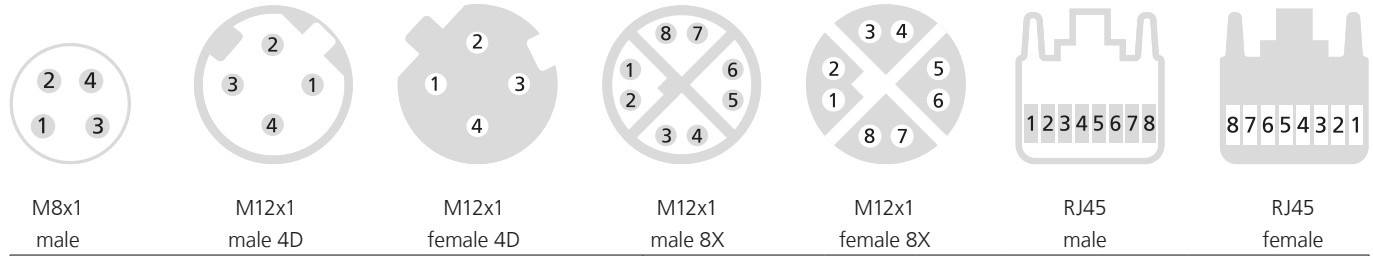
Coding T  
female

male

		Contact							
Pins	Coding	Allocation code	1	2	3	4			
2+PE	S	3.002	BN		BU	GN/YE			
2+PE	S	3.031	BK		BK	GN/YE			
3+PE	S	4.155	BN	BK	GY	GN/YE			
4	T		BN	WH	BU	BK			

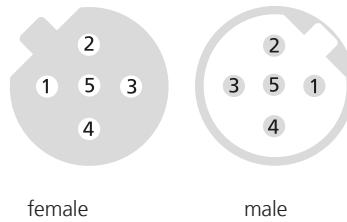
Pinout M12x1 POWER  
PS | PT

Pinout Industrial Ethernet



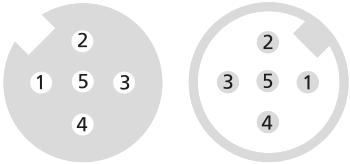
				Pin							
Type	Pins	Coding	Allocation code	1	2	3	4	5	6	7	8
M8x1	4		4.027	WH/OG	WH/BU	BU	OG				
M12x1	4	D	4.029	YE	WH	OG	BU				
M12x1	4	D	4.082	WH/OG	WH/BU	OG	BU				
M12x1	8	X	8.066	WH(OG)	OG	WH(GN)	GN	WH(BN)	BN	WH(BU)	BU
RJ45	4		4.003	YE	OG	WH			BU		
RJ45	4		8.005	WH(OG)	OG	WH(BU)			BU		
RJ45	8		8.002	WH(OG)	OG	WH(GN)	BU	WH(BU)	GN	WH(BN)	BN

Pinout Profibus



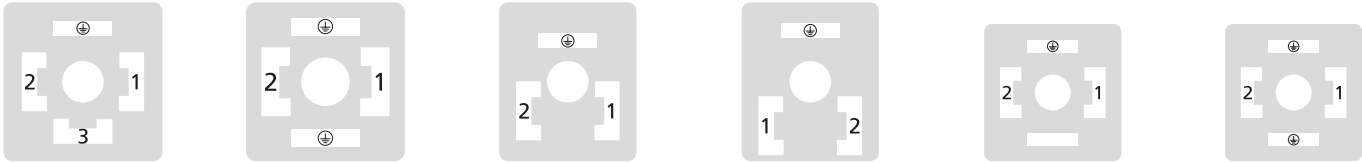
				Pin							
Type	Pins	Coding	Allocation code	1	2	3	4	5	6	7	8
M12x1	5	B	2.012		GN		RD				

Pinout CANopen/DeviceNet



female male

				Pin				
Type	Pins	Coding	Allocation code	1	2	3	4	5
M12x1	4+GND	A	5.022		RD	BK	WH	BU
				GND	+	-	CAN_H	CAN_L

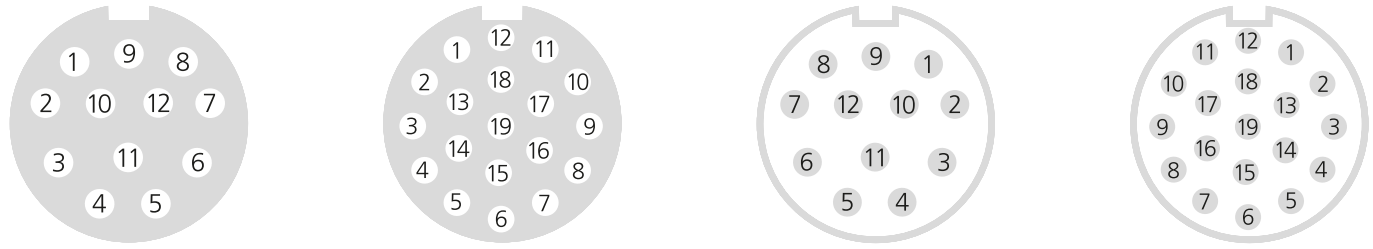


VA21 VA22 VB21 VBI22 VC21 VC22

Pinout Valve Connector

			Pin			
Type	Pins		1	2	3   PE	PE
A	21	2 contacts + PE	BN	BU		GN/YE
A	22	2 contacts + PE jumpered	BN	BU	GN/YE	
A	41	3 contacts + PE + wire connection	BN	WH	BK	GN/YE
B   BI	21	2 contacts + PE	BN	BU		GN/YE
C   CI	21	2 contacts + PE	BN	BU		GN/YE
C   CI	22	2 contacts + PE jumpered	BN	BU	GN/YE	

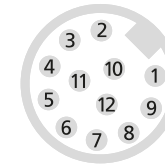
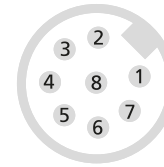
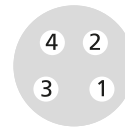
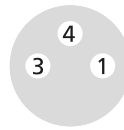
Pinout M23x1



female

male

	Pin																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
12.001	WH	GN	YE	GY						BU	BN	GN/YE							
12.003	WH	GN	YE	GY	PK	RD	BK	VT		BU	BN	GN/YE							
19.001			GY	RD/BU	GN	BU	GY/PK					WH/GN		BN/GN	WH	YE			BN
19.003	VT	RD	GY	RD/BU	GN	BU	GY/PK	WH/GN	WH/YE	WH/GY	BK	GN/YE	YE/BN	BN/GN	WH	YE	PK	GY/BN	BN



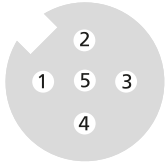
M8x1/Ø8mm snap, female

M12x1, male

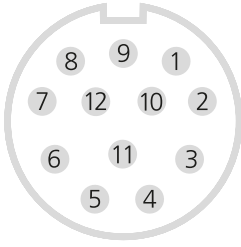
Allocation I/O-junctions M8x1/Ø8mm snap

M8x1/Ø8mm snap																				
I/O	1	2	3	4	5	6	7	8	9	10	all									
I/O_contacts	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	4	1	3		
M12_12 pins (I/O 3 pins)	3	-	4	-	6	-	8	-	5	-	9	-	7	-	10	-	11	12	1	2
M12_12 pins (I/O 4 pins)	3	5	4	9	6	7	8	10	-	-	-	-	-	-	-	-	11	12	1	2
M12_8 pins	1	-	2	-	3	-	4	-	-	-	-	-	-	-	-	-	-	-	5	7
Cable	WH	GY/PK	GN	RD/BU	YE	WH/GN	GY	BN/GN	PK	WH/YE	RD	YE/BN	BK	WH/GY	VT	GY/BN	WH/PK	BN/PK	BN (+)	BU (-)

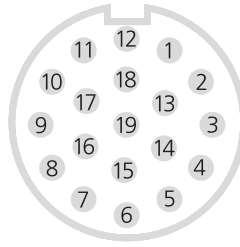































M12x1, female



M23x1, male



M12x1																			
I/O	1		2		3		4		5		6		7		8		all	all	all
I/O_Pin	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	1	3	5
M23_12 pins	-	1	-	2	-	3	-	4	-	5	-	6	-	7	-	8	11	9+10	12
M23_19 pins	7	15	4	5	8	16	14	3	9	17	13	2	10	11	18	1	19	6	12
Cable	GY/PK	WH	RD/BU	GN	WH/GN	YE	BN/GN	GY	WH/YE	PK	YE/BN	RD	WH/GY	BK	GY/BN	VT	BN (+)	BU (-)	GN/YE

			
	<b>AR</b> AUMECON S.A.   Acassuso 4768, 1605 Munro/Buenos Aires	+54 11 47561251	aumecon.com.ar
	<b>AT</b> ESCHA Bauelemente GmbH   Büro Wien   Gumpoldskirchner Str. 14/8, 2340 Mödling	+43 664 3072340	escha.net
	<b>AU</b> Micromax Sensors and Automation Pty Ltd   Unit 2, 106 Beaconsfield Street, Silverwater NSW 2128	+61 2 8748 2800	micromaxsa.com.au
	<b>BIH</b> Tipteh d.o.o. Sarajevo   Ulica Branilaca Sipa 21c   71000 Sarajevo	+387 61 923623	tipteh.ba
	<b>CH</b> Dietrich+Blum AG   Hertistr. 31   8304 Wallisellen	+41 848 300700	dietrichundblum.ch
	<b>CN</b> ESCHA Automation Connectivity (Shanghai) Co., Ltd.   2059 Duhui Road, Building F,   2nd Floor, Minhang District   201108 Shanghai	+86 21 52968180	escha.net
	<b>DE</b> ESCHA Bauelemente GmbH   Elberfelder Str.32, 58553 Halver	+49 2353 708-800	escha.net
	<b>DK</b> Hans Følsgaard A/S   Theilgaards Torv 1, 4600 Køge	+45 43 208600	hf.net
	<b>ES</b> ELION S.A.   Farell, 5, 08014 Barcelona	+34 9 32982000	elion.es
	<b>FI</b> SARLIN Oy Ab   Kaivokselantie 3-5, 01610 Vantaa	+358 10550 4000	sarlin.com
	<b>FR</b> ESCHA S.A.S   60, Avenue Charles de Gaulle - CS 60016   92573 NEUILLY SUR SEINE CÉDEX	+33 1 73 02 89 45	escha.net
	<b>HR</b> Tipteh d.o.o. Zagreb   Pešćanska ulica 170, 10000, Zagreb	+385 1 381 65 74	tipteh.hr
	<b>IN</b> Automation Combine   B.R. House, 2nd Floor   Hennur Main Road   Bangalore 560043	+91 80 2543 5757	automationcombine.in
	<b>IT</b> R.E.D. s.r.l.   Via Mappano 30, 10071 Borgaro (TO)	+39 011 45 01 373	redto.eu
	<b>MK</b> Tipteh d.o.o. Skopje   Ul. Bul.Partizanski Odredi 80 lok 5, 1000 Skopje	+389 2 31 74 197	tipteh.mk
	<b>NO</b> HF DANYKO AS   Bark Silas Vei 8, 4876 Grimstad	+47 37 090 940	danyko.no
	<b>PL</b> ENMATEK spółka z o.o.   ul. Wrocławska 31, 30-011 Kraków	+48 608 69 07 05	enmatek.eu
	<b>PT</b> BRESIMAR Automacao, S.A.   Quinta do Simao   EN109 - Esgueira   Apartado 3080   3801-101 Aveiro	+351 234 303 320	bresimar.pt
	<b>RS</b> Tipteh d.o.o. Beograd   Toplice Milana 14A, 1050 Beograd	+381 11 28 92 250	tipteh.rs
	<b>SE</b> Tufvasson Tesch AB   Märstavägen 20, 93 40 Sigtuna	+46 8-594 809 00	tufvassons.se
	<b>SI</b> Tipteh d.o.o.   Ulica Ivana Roba 21, 1000 Ljubljana	+386 1 200 51 50	tipteh.si
	<b>SK</b> MARPEX s.r.o.   Sportovcov 672, 01841 Dubnica nad Váhom	+421 42 4426986-87	marpex.sk
	<b>TR</b> Gökhan Elektrik Malzemeleri Sanayi ve Ticaret LTD STI.   Perpa Elektrokent is Merkezi A Blok K.8 No.692-694, 34385 Okmeydani /Istanbul	+90 2122213236	gokhanelektrik.com.tr
	<b>ZA</b> RET Automation Controls   PO 8378, Edenglen, 1613	+27 11 4532468	retauto.co.za

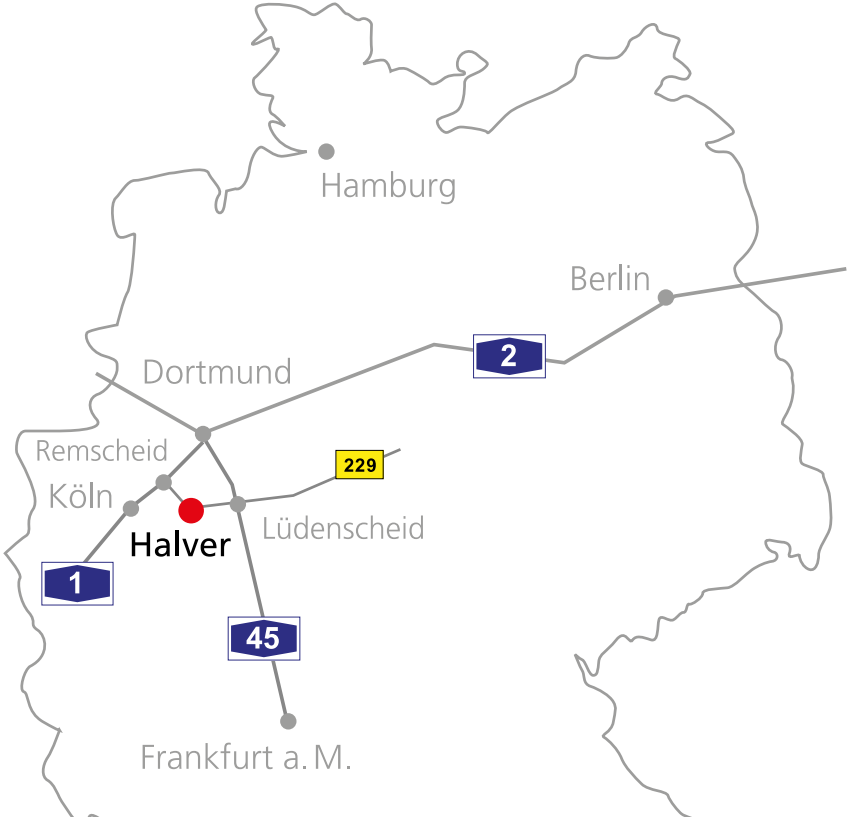
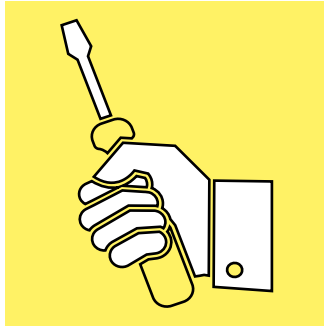
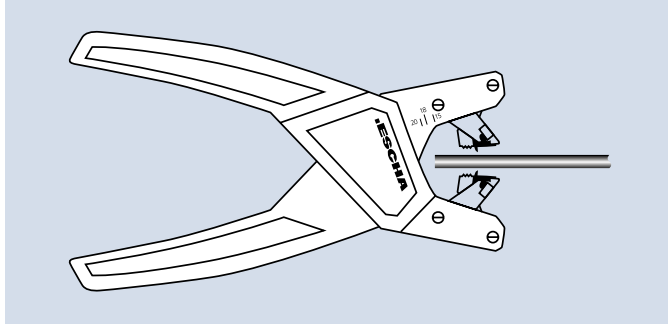


Photo: Dr. W. Moser

**200°C**



ESCHA Bauelemente GmbH  
Elberfelder Str. 32 | 58553 Halver  
Phone +49 2353 708 - 800  
Fax +49 2353 708 - 8410  
Germany

[escha.net](http://escha.net)

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