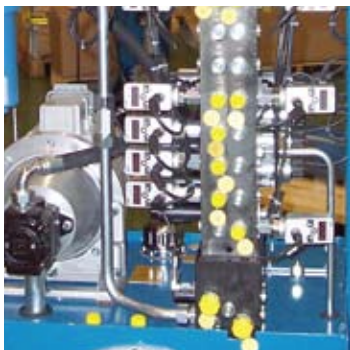




aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



SensoControl Industrial Products

Industrial Sensors and Controllers for Fluid System
Measurement, Control, Regulation, and Automation
Catalog 3883 USA | March 2010



ENGINEERING YOUR SUCCESS.

The CE mark indicates high-quality equipment which meets European Directives 89/336/EWG and EMVG requirements respectively. It is hereby confirmed that the products are in accordance with the following standards:

Electromagnetic compatibility

Electromagnetic interference emissions:

EN 61000-6-3

Electromagnetic interference resistance:

EN 61000-6-2

- Electromagnetic interference can influence the useful signal.
- General EMG concepts should be used in the designing of installations and machinery.
- To achieve better EMC interference resistance, the deployment of shielded connecting cables is recommended (SCK-400-xx-x5).
- Route analog and data cables at a safe distance from power cables.
- A perfect grounding arrangement helps to avoid measurement errors.

Always connect the metallic housing with the laid-down quantities. The PE protective earth terminal should be connected up with a low ohm value. Measurement of the protective ground resistance should take place in accordance with VDE 0701.

Power supply

The recommended power supply with which each standard sensor should be driven is indicated for the individual sensor series. A low-noise, high quality, constant voltage source is recommended. Some specifications, such as sensitivity and thermal sensitivity shift, change if a supply voltage is used which is not recommended. Every sensor is tuned to give peak performance. Usage with any other than the indicated power supply leads to a change in sensor performance. All polarity and ground regulations should be strictly followed.

Improper connection of the supply wires can cause damage to the sensor or amplifier! If one pole of the sensor supply voltage is ground automatically by a signal processing system, a simultaneous grounding of one of the sensor signal wire should be avoided; this would short-circuit the sensor and thereby lead to damage.

Do not connect a power supply to the output wires; this would lead to permanent damage to the sensor! Exceeding the maximum recommended supply voltage indicated in the data sheet would also lead to sensor damage!

Media compatibility

SensoControl® products in contact with media are not produced in an oil and grease-free environment. Therefore these products should not be used for applications where an explosive oil or oil/gas mixture could occur (eg. acid or compression). (Danger of explosion!) Use only those media which are compatible with the parts in contact with the media. If you should have any questions, please refer to the installation manufacturer or to the manufacturer of the medium being used (see catalog 4100 chapter C).

Selection of pressure range

When selecting pressure elements do not exceed the overload pressure. If the overload pressure is exceeded, mechanical deformation of the pressure cell (according to the length/frequency and height of the pressure peak) can result. Note: where there are air inclusions, because of the "diesel effect" pressure peaks can occur which far exceed the overload pressure. The nominal pressure PN of the pressure element (sensor/switch) should lie above the nominal pressure of the system being measured.

Failure to follow this rule can adversely affect the functional safety and reliability of products, cause personal injury, property damage, and result in loss of your guarantee rights.

Products and information subject to change.



WARNING – USER RESPONSIBILITY

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

- This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.
- The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.
- To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.



Market Symbol Key



Agriculture



Automotive



Chemical



Construction



Forestry



Industrial
Equipment



Military



Mining



MRO



Oil & Gas



Power
Generation

Industrial Products

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Industrial Sensors

Section A

Pressure Sensors

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Pressure Sensors, Explosion Resistant

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Temperature Sensors

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Parker's SensoControl Industrial Sensors are ideal for permanent installation in industrial and mobile hydraulic applications where continuous system monitoring is needed. These precision engineered sensors are rugged in construction and deliver a high degree of dependability and performance with superb stability and resistance to interference.



Applications include:

- Test and Measurement
- Hydraulic Power Units
- Power Generation
- Mobile Hydraulics

Features:

- Stainless steel body
- Compact construction
- Shock and vibration proof
- Resistant to pressure spikes
- Accuracy +/- 0.5% FS

SCP01 Pressure Sensors are industrial pressure sensors offering long-term stability, resistance to interference and rugged construction. They are available in a wide range of standard and configured to order versions to meet your application needs. These sensors are manufactured with the highest quality standards for reliable and repeatable measurements.

SCP01 Series Pressure Sensors

Part Number	Pressure Range (PSI)	Electrical Output	Port Connection	Electrical Connection
SCP01-0060P-25-07	-14.5 to 60	4 - 20 mA, 3 wire	1/4 NPT male	M12 X 1, 4 pin
SCP01-0060P-27-07	-14.5 to 60	4 - 20 mA, 3 wire	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin
SCP01-0060P-35-07	-14.5 to 60	4 - 20 mA, 2 wire	1/4 NPT male	M12 X 1, 4 pin
SCP01-0060P-37-07	-14.5 to 60	4 - 20 mA, 2 wire	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin
SCP01-0060P-47-07	-14.5 to 60	0 -10V, 3 wire	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin
SCP01-0150P-25-07	-14.5 to 150	4 - 20 mA, 3 wire	1/4 NPT male	M12 X 1, 4 pin
SCP01-0150P-27-07	-14.5 to 150	4 - 20 mA, 3 wire	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin
SCP01-0150P-35-07	-14.5 to 150	4 - 20 mA, 2 wire	1/4 NPT male	M12 X 1, 4 pin
SCP01-0150P-37-07	-14.5 to 150	4 - 20mA, 2 wire	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin
SCP01-0150P-47-07	-14.5 to 150	0 -10V, 3 wire	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin
SCP01-0250P-25-07	-14.5 to 250	4 - 20 mA, 3 wire	1/4 NPT male	M12 X 1, 4 pin
SCP01-0250P-27-07	-14.5 to 250	4 - 20 mA, 3 wire	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin
SCP01-0250P-35-07	-14.5 to 250	4 - 20 mA, 2 wire	1/4 NPT male	M12 X 1, 4 pin
SCP01-0250P-37-07	-14.5 to 250	4 - 20 mA, 2 wire	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin
SCP01-0250P-47-07	-14.5 to 250	0 -10V, 3 wire	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin

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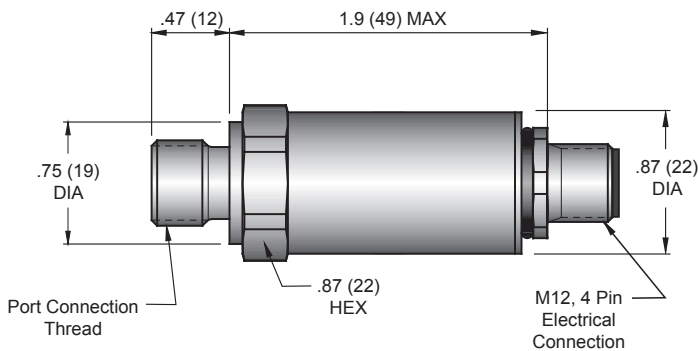
Controllers

B

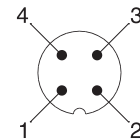
Accessories

C

SCP01 Series Pressure Sensors				
Part Number	Pressure Range (PSI)	Electrical Output	Port Connection	Electrical Connection
SCP01-1000P-25-07	0 to 1000	4 - 20 mA, 3 wire	1/4 NPT male	M12 X 1, 4 pin
SCP01-1000P-27-07	0 to 1000	4 - 20 mA, 3 wire	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin
SCP01-1000P-35-07	0 to 1000	4 - 20 mA, 2 wire	1/4 NPT male	M12 X 1, 4 pin
SCP01-1000P-37-07	0 to 1000	4 - 20 mA, 2 wire	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin
SCP01-1000P-47-07	0 to 1000	0 -10V, 3 wire	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin
SCP01-3000P-25-07	0 to 3000	4 - 20 mA, 3 wire	1/4 NPT male	M12 X 1, 4 pin
SCP01-3000P-27-07	0 to 3000	4 - 20 mA, 3 wire	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin
SCP01-3000P-35-07	0 to 3000	4 - 20 mA, 2 wire	1/4 NPT male	M12 X 1, 4 pin
SCP01-3000P-37-07	0 to 3000	4 - 20 mA, 2 wire	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin
SCP01-3000P-47-07	0 to 3000	0 -10V, 3 wire	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin
SCP01-5000P-25-07	0 to 5000	4 - 20 mA, 3 wire	1/4 NPT male	M12 X 1, 4 pin
SCP01-5000P-27-07	0 to 5000	4 - 20 mA, 3 wire	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin
SCP01-5000P-35-07	0 to 5000	4 - 20 mA, 2 wire	1/4 NPT male	M12 X 1, 4 pin
SCP01-5000P-37-07	0 to 5000	4 - 20 mA, 2 wire	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin
SCP01-5000P-47-07	0 to 5000	0 -10V, 3 wire	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin
SCP01-9000P-25-07	0 to 9000	4 - 20 mA, 3 wire	1/4 NPT male	M12 X 1, 4 pin
SCP01-9000P-35-07	0 to 9000	4 - 20 mA, 2 wire	1/4 NPT male	M12 X 1, 4 pin
SCP01-9000P-45-07	0 to 9000	0 -10V, 3 wire	1/4 NPT male	M12 X 1, 4 pin



All dimensions are shown in inches (mm).



Pin	4 - 20 mA, 3 wire	0 - 10 V, 3 wire	4 - 20 V, 2 wire
1	Supply	Supply	Supply
2	Signal Output	Signal Output	Signal Output
3	Ground	Ground	-
4	-	-	-

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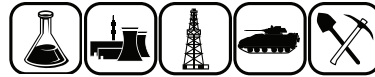
Accessories

C

Technical Specifications	
Overload Pressure	200% FS
Burst Pressure	250% FS
Accuracy	+/- 0.5% FS
Protection Class	IP67
Response Time	< 1ms
Long Term Stability	< 0.1% FS/a
Load Reversals	> 20 M

Physical Properties	
Material - Housing	304 SS
Material - Fitting	630 SS
Material - Seal	Fluorocarbon
Sensing Element	Thin Film (poly Si on SiO ₂)
Pressure Bore	0.024 in.
Long Term Stability	< 0.1% FS/a
Load Reversals	> 20 M

General Data	
Electrical Protection	Short circuit, reverse polarity, overload protection
Supply Voltage	9-30VDC - 4-20mA, 3-wire 12-30VDC - 4-20 mA, 2-wire / 0-10V, 3-wire
Temperature Range:	
Environmental	-40° F to 185° F
Media, Storage	-40° F to 257° F
Compensated	-4° F to 185° F
Temperature Coefficient	< +/- 0.3% FS/10K
Vibration Resistance	Meets IEC 60068-2-29
Shock Resistance	Meets IEC 60068 2-32
EMI Compatibility	DIN EN 61000-6-3 DIN EN 61000-6-2



Applications include:

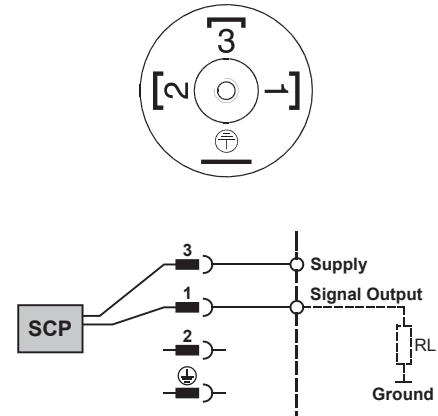
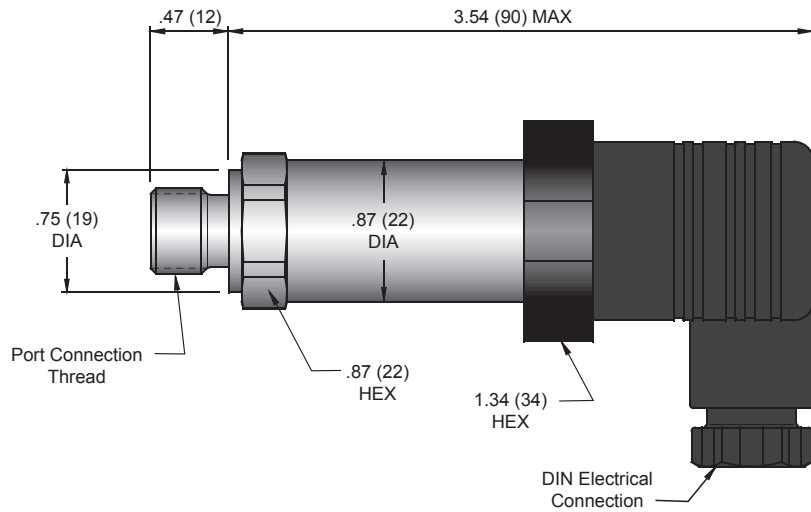
- Test and Measurement
- Hydraulic Power Units
- Power Generation
- Mobile Hydraulics

SCP-EX Pressure Sensors are industrial pressure sensors designed for explosion risk applications. Providing long-term stability and resistance to electrical interference in a compact design, they are available in a wide range of standard and configured to order versions. These sensors are manufactured to the highest quality standards for reliable and repeatable measurements as well as the safety of being used in high risk areas.

Features:

- Stainless steel body
- Compact construction
- Shock and vibration proof
- Resistant to electrical interference
- Accuracy +/- 0.5% FS

SCP-EX Series Explosion Resistant Pressure Sensors				
Part Number	Pressure Range (PSI)	Electrical Output	Port Connection	Electrical Connection
SCP-1000P-35-06-EX	0 to 1000	4 - 20 mA, 2 wire	1/4 NPT male	DIN 34650 EX
SCP-1000P-37-06-EX	0 to 1000	4 - 20 mA, 2 wire	7/16-20UNF-2A male SAE-4 with O-ring	DIN 34650 EX
SCP-3000P-35-06-EX	0 to 3000	4 - 20 mA, 2 wire	1/4 NPT male	DIN 34650 EX
SCP-3000P-37-06-EX	0 to 3000	4 - 20 mA, 2 wire	7/16-20UNF-2A male SAE-4 with O-ring	DIN 34650 EX
SCP-5000P-35-06-EX	0 to 5000	4 - 20 mA, 2 wire	1/4 NPT male	DIN 34650 EX
SCP-5000P-37-06-EX	0 to 5000	4 - 20 mA, 2 wire	7/16-20UNF-2A male SAE-4 with O-ring	DIN 34650 EX
SCP-9000P-35-06-EX	0 to 9000	4 - 20 mA, 2 wire	1/4 NPT male	DIN 34650 EX



All dimensions are shown in inches (mm).

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Technical Specifications	
Overload Pressure	200% FS
Burst Pressure	250% FS
Accuracy	+/- 0.5% FS
Protection Class	IP65
EX Approval	II 2G Eex ia IIC T4 (IBExU06ATEX 1045)
Response Time	< 1ms
Long Term Stability	< 0.1% FS/a
Load Reversals	> 20 M

Physical Properties	
Material - Housing	304 SS
Material - Fitting	630 SS
Material - Seal	Fluorocarbon
Sensing Element	Thin Film, Poly Si on Si O ₂
Pressure Bore	0.024 in.

General Data	
Electrical Protection	Short circuit, reverse polarity, overload protection
Supply Voltage	12-30VDC – 4-20mA, 2-wire
Temperature Range	
Environmental	-40° to 185° F
Media, Storage	-40° to 257° F
Compensated	-4° to 185° F
Temperature Coefficient	< +/- 0.3% FS/10° K
Vibration Resistance	Meets IEC 60068-2-29
Shock Resistance	Meets IEC 60068 2-32
EMI Compatibility	DIN EN 61000-6-3 DIN EN 61000-6-2

Additional Data	
Ignition Class	II 2G Eex ia IIC T4 (IBExU06ATEX 1045)
Basic Standard	EN 50014; EN 50020
Maximum Supply	30 V; 50 mA; 1 W
Temperature Class	T4 (environmental, -40° to 185° F)
Power Supply w / EX Approval	
Output Voltage	Max 24 VDC
Output Current	Max 50 mA
Ri (at 24 V)	510
Output Signal	4-20 mA, 2-wire



SCP Custom Pressure Sensors are industrial pressure sensors offering long-term stability, resistance to interference and rugged construction. They are available in a wide range of pressures configured to meet your unique application. These sensors are manufactured to the highest quality standards for reliable and repeatable measurements.

Applications include:

- Test and Measurement
- Hydraulic Power Units
- Power Generation
- Mobile Hydraulics
- Wind Turbines

Features:

- Stainless steel case and wetted parts
- Compact construction
- Shock and vibration proof
- Resistant to pressure spikes
- Accuracy +/- 0.5% FS

Configure a custom pressure sensor to fit your application's specifications

Use the following check list to provide the information needed to create a custom pressure sensor for your unique application.

1. Specify a pressure range:

Pressure Range Options (psi)	<input checked="" type="checkbox"/>
-14.5 to 60	<input type="checkbox"/>
-14.5 to 150	<input type="checkbox"/>
-14.5 to 250	<input type="checkbox"/>
0 to 1000	<input type="checkbox"/>
0 to 3000	<input type="checkbox"/>
0 to 5000	<input type="checkbox"/>
0 to 9000	<input type="checkbox"/>
Other (up to 58000)	<input type="checkbox"/>

2. Specify an electrical output:

Electrical Output Options	<input checked="" type="checkbox"/>
0-20 mA	<input type="checkbox"/>
4-20 mA, 2 wire	<input type="checkbox"/>
4-20 mA, 3 wire	<input type="checkbox"/>
0-10 V	<input type="checkbox"/>
1-5 V	<input type="checkbox"/>
1-6 V	<input type="checkbox"/>
0.5 - 4.5 V ratiometric	<input type="checkbox"/>
PWM	<input type="checkbox"/>
Other	<input type="checkbox"/>

3. Specify a port connection:

Port Connection Thread Options	<input checked="" type="checkbox"/>
SAE	<input type="checkbox"/>
NPT	<input type="checkbox"/>
BSPP	<input type="checkbox"/>
Metric	<input type="checkbox"/>
Other	<input type="checkbox"/>

4. Specify a seal material:

Port Seal Options	<input checked="" type="checkbox"/>
Nitrile	<input type="checkbox"/>
Fluorocarbon	<input type="checkbox"/>
EPDM	<input type="checkbox"/>
Other	<input type="checkbox"/>

5. Specify an electrical connection:

Electrical Connection Options	<input checked="" type="checkbox"/>
Fixed cable	<input type="checkbox"/>
Plug options	<input type="checkbox"/>
M12 X1	<input type="checkbox"/>
AMP	<input type="checkbox"/>
Packard	<input type="checkbox"/>
Deutsch	<input type="checkbox"/>
DIN EN 175301-803 Form A	<input type="checkbox"/>
Other	<input type="checkbox"/>

6. Contact:

Quick Coupling Division
ph: 763-544-7781
fax: 763-544-3418
qcd_sales@parker.com



SCT Series Temperature Sensors measure system media temperature quickly and precisely.

Applications include:

- Test and Measurement
- Hydraulic Power Units
- Power Generation
- Mobile Hydraulics

Features:

- Compact
- Rapid Reaction Time
- Rugged Steel Housing
- Simple Installation
- Applications up to 6000 PSI (415 bar) working pressure
- -13° F to 257° F [-25° C to 125° C]
- Standard Output Signal
- Accuracy +/- 2% FS

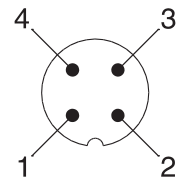
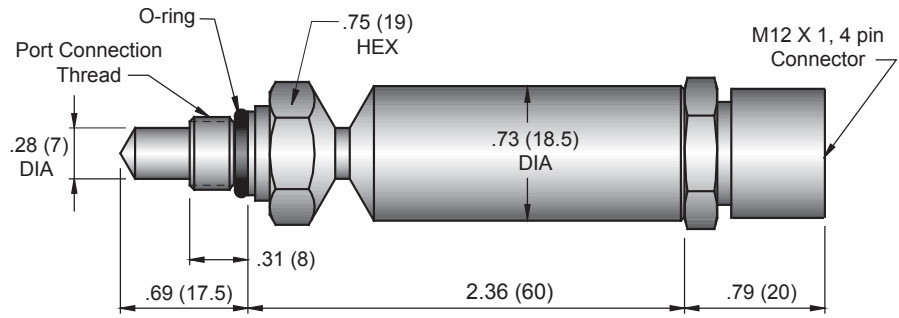
SCT Series Temperature Sensors

Part Number	Temperature Range	Port Connection	Electrical Output
SCT-250F-15-07	-13° F to 257° F [-25° C to 125° C]	1/4 NPT male	0 - 20 mA, 3 wire
SCT-250F-17-07	-13° F to 257° F [-25° C to 125° C]	7/16-20UNF-2A male SAE-4 with O-ring	0 - 20 mA, 3 wire

Technical Specifications

Sensing Element	Silicon Chip
Material	Steel C15K Galvanized
Protection Class	IP 65
Seal	O-ring: 7,65 x 1,78 FKM
Measurement Ranges	-13° F to 257° F [-25° C to 125° C]
Working Pressure	6000 psi (414 bar)
Electrical Connection	M12 X 1, 4 pin
Voltage Supply	11-30 VDC
Electrical Output	0-20mA = -58° F to 257° F
Accuracy	+/- 2% FS
Rise Time	13.9 s
Working Resistance	250 Ω
Load Reversals	> 20 M
Measurement Media	Fluid Media (Oil), No Aggressive Media
Vibration Resistance	Meets IEC 60068-2-29
Shock Resistance	Meets IEC 60068 2-32
EMI Compatibility	DIN EN 61000-6-3 DIN EN 61000-6-2

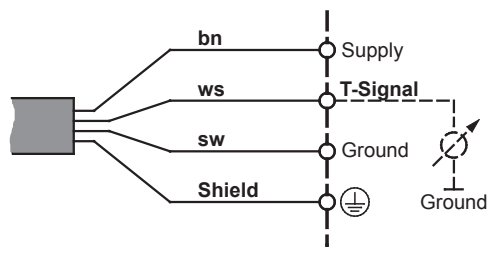
Technical Specifications	
Environment Temperature Range	-4° F to 158° F (-20° C to 70° C)
Fluid Temperature Range	-13° F to 257° F (-25° C to 125° C)
Storage Temperature Range	-13° F to 176° F (-25° C to 80° C)



Pin	0 - 20 mA, 3 wire
1	Supply
2	Signal Output
3	Ground
4	-

All dimensions are shown in inches (mm).

Connection Designation



Code	Wire Color
bn	Brown
ws	White
sw	Black



Industrial Controllers

Section B

Pressure Controllers

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Temperature Controllers

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Level Controllers

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Level / Temperature Controllers

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Parker's SensoControl Industrial controllers combine all of the functions of mechanical sensors, switches, and displays into a single intelligent instrument. These simple, robust solutions will accurately regulate the critical operating parameters (pressure, temperature, and tank level) for hydraulic and pneumatic systems.



Applications include:

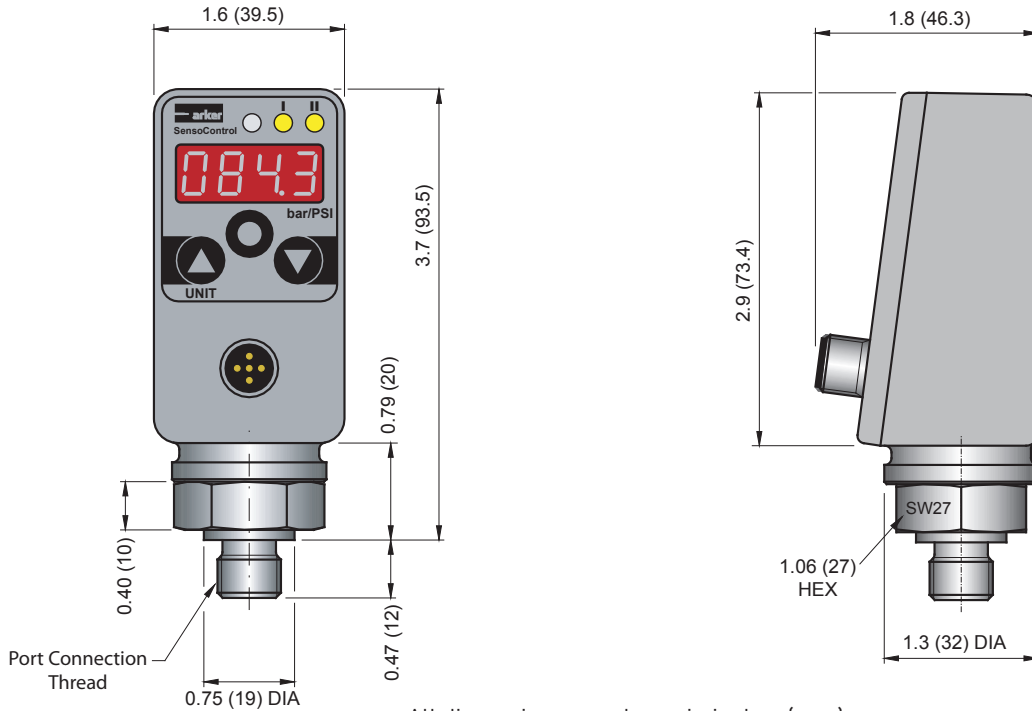
- Inspection Station
- Process Control
- General Machine Construction
- Pneumatic and Hydraulic Plant Construction

Features:

- Pressure display
- Two switching outputs
- Analog output signal
- Password protection
- Solid mechanical construction

Parker's SCPSD Pressure Controller combines the functions of pressure switch, pressure sensor and display in a single instrument.

SCPSD Series Pressure Controllers					
Part Number	Pressure Range (PSI)	Electrical Output	Port Connection	Electrical Connection	Sensing Element
SCPSD-0060P-17-17	-14.5 to 60	1 sw / 1 analog	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin	Ceramic
SCPSD-0060P-17-15	-14.5 to 60	2 sw / 1 analog	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 5 pin	Ceramic
SCPSD-0060P-07-17	-14.5 to 60	2 sw / no analog	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin	Ceramic
SCPSD-0250P-17-17	-14.5 to 250	1 sw / 1 analog	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin	Ceramic
SCPSD-0250P-17-15	-14.5 to 250	2 sw / 1 analog	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 5 pin	Ceramic
SCPSD-0250P-07-17	-14.5 to 250	2 sw / no analog	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin	Ceramic
SCPSD-1000P-17-17	0 to 1000	1 sw / 1 analog	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin	Thin Film
SCPSD-1000P-17-15	0 to 1000	2 sw / 1 analog	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 5 pin	Thin Film
SCPSD-1000P-07-17	0 to 1000	2 sw / no analog	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin	Thin Film
SCPSD-3000P-17-17	0 to 3000	1 sw / 1 analog	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin	Thin Film
SCPSD-3000P-17-15	0 to 3000	2 sw / 1 analog	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 5 pin	Thin Film
SCPSD-3000P-07-17	0 to 3000	2 sw / no analog	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin	Thin Film
SCPSD-5000P-17-17	0 to 5000	1 sw / 1 analog	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin	Thin Film
SCPSD-5000P-17-15	0 to 5000	2 sw / 1 analog	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 5 pin	Thin Film
SCPSD-5000P-07-17	0 to 5000	2 sw / no analog	7/16-20UNF-2A male SAE-4 with O-ring	M12 X 1, 4 pin	Thin Film
SCPSD-9000P-15-17	0 to 9000	1 sw / 1 analog	1/4 NPT male	M12 X 1, 4 pin	Thin Film
SCPSD-9000P-15-15	0 to 9000	2 sw / 1 analog	1/4 NPT male	M12 X 1, 5 pin	Thin Film
SCPSD-9000P-05-17	0 to 9000	2 sw / no analog	1/4 NPT male	M12 X 1, 4 pin	Thin Film

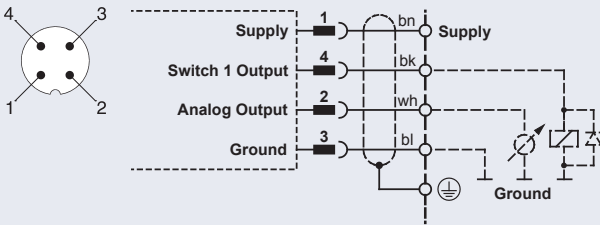


All dimensions are shown in inches (mm).

Electrical Connection Options:

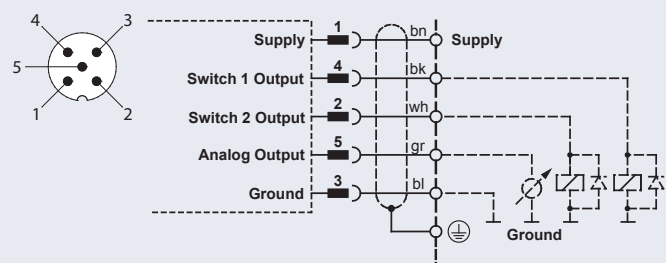
M12 X 1, 4 pin

1 switching output / 1 analog output



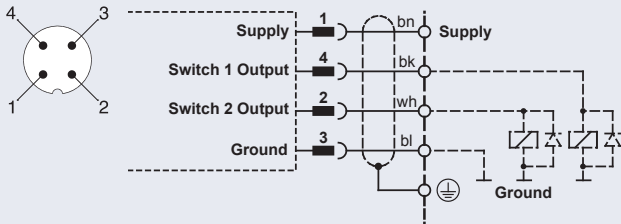
M12 X 1, 5 pin

2 switching outputs / 1 analog output



M12 X 1, 4 pin

2 switching outputs



Technical Specifications

Outputs	2 PNP MOSFET switches, optional analog [4-20 mA]
Contact Functions	Normally open / closed, window / hysteresis, freely settable
Pressure Switching Point and Display Accuracy	+/- 0.5% FS typ. +/- 1.0% FS max.
Protection Class	IP67
Response Speed	< 700ms
Long Term Stability	< 0.2% FS/a
Load Reversals	> 100 M



Physical Properties	
Material - Housing	Zinc diecast Z 410; painted
Material - Fitting	Nickel plated brass
Material - Seal	Fluorocarbon
Sensing Element	Low pressure ceramic, high pressure thin film
Display	4 figure, 7 segment red LED; digit height 0.35 inches (9mm)

Output Quantities	
Power Supply	15...30 VDC nominal 24 VDC; protection class 3
Switching Voltage	Power supply 1.5 VDC
Switching Current	0.5 A/switch
Short Circuit Current	2.4 A per switch
Analog Output	0/4-20 mA, programmable
Temperature Range - Environmental, Media	-4° to 185° F
Temperature Range - Storage	-40° to 212° F
Temp Coefficient	< +/- 0.3% FS/10K
Vibration Resistance	Meets IEC 60068-2-29
Shock Resistance	Meets IEC 60068 2-32
EMI Compatibility	DIN EN 61000-6-3 DIN EN 61000-6-2
Media Compatibility	Water, lubricating oil, hydraulic oil, acids, and alkalis

SCPSD Accessories

Refer to the Accessories in Section C for detailed information on the following items:

PC Programming Kit

SCSD-PRG-KIT includes:

- ControllerWin software
- Adapter
- Power pack

Cables (ready-made)

SCK-400-XX-XX

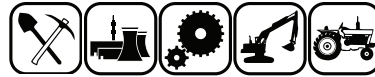
- Length and plug-in connection options available

Plugs (separate)

SCK-XXX

options include:

- M12, straight and 90 degree
- DIN



Applications include:

- Inspection Station
- Process Technology
- General Machine Construction
- Pneumatic and Hydraulic Plant Construction

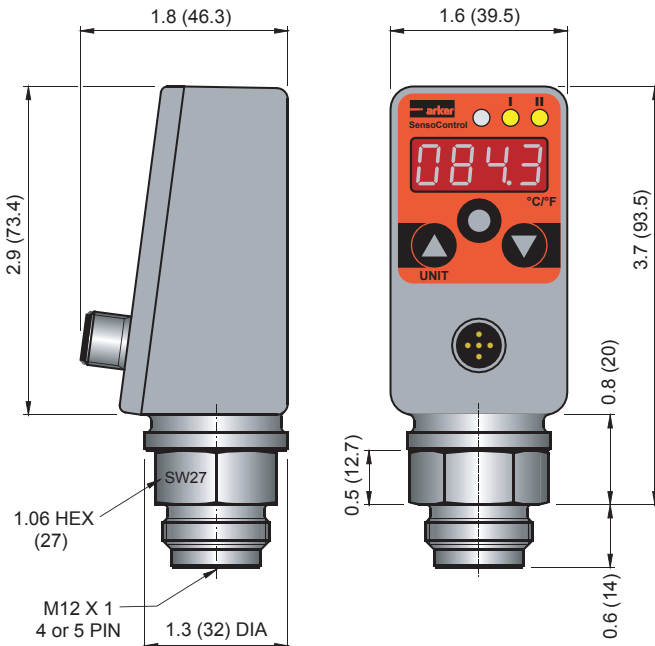
Features:

- Temperature Display
- Switching Outputs for Control
- Analog Output Signals
- Password Protection
- Solid Mechanical construction

The SCTSD Temperature Controller combines the functions of a temperature switch, temperature sensor, and display in a single instrument.

SCTSD Series Temperature Controllers				
Part Number	Temperature Range	Electrical Output	*Adapter Port Connection	Electrical Connection
SCTSD-250F-10-07	-40°F to +250°F	1 sw / 1 analog	3/4-16UNF-2A male SAE-8 using adapter	M12 X 1, 4 pin
SCTSD-250F-10-05	-40°F to +250°F	2 sw / 1 analog	3/4-16UNF-2A male SAE-8 using adapter	M12 X 1, 5 pin
SCTSD-250F-00-07	-40°F to +250°F	2 sw / 0 analog	3/4-16UNF-2A male SAE-8 using adapter	M12 X 1, 4 pin

* Connection Adapter is required for direct port mounting. See direct mounting configuration and accessories on page B-7.

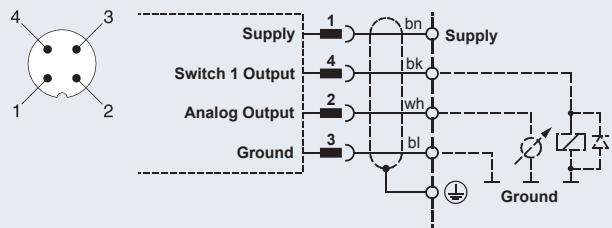


All dimensions are shown in inches (mm).

Electrical Connection Options:

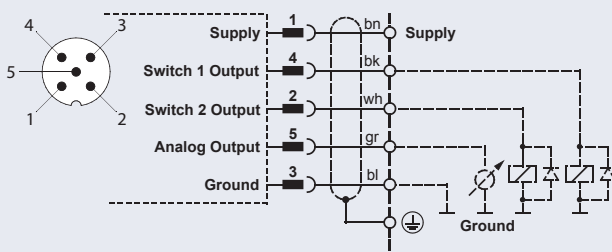
M12 X 1, 4 pin

1 switching output / 1 analog output



M12 X 1, 5 pin

2 switching outputs / 1 analog output



Technical Specifications	
Outputs	2 PNP MOSFET switches, optional analog (4-20 mA)
Contact Functions	Normally open / closed, window / hysteresis, freely settable
Temperature Switching Point and Display Accuracy	(± 0.35% FS, ± 1 digit at 75F)
Protection Class	IP67
Response Speed	300 ms
Long Term Stability	< 0.1% FS/a
Resolution	1° F

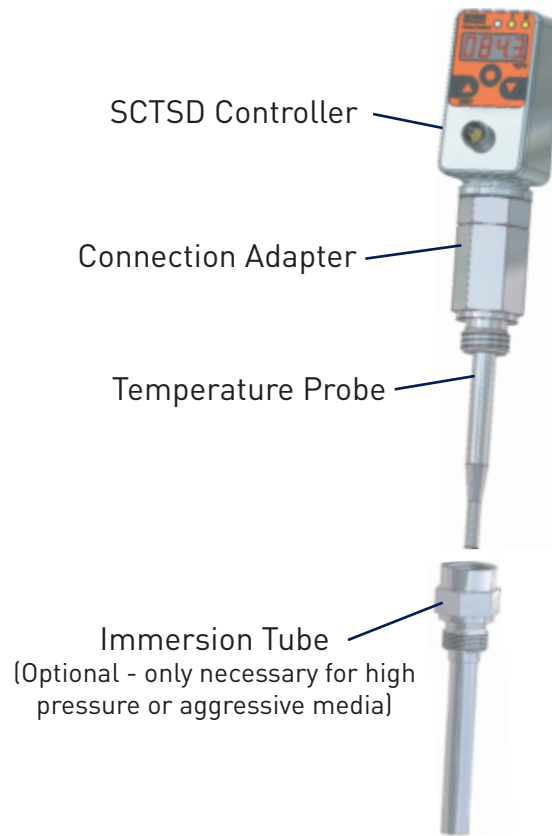
Physical Properties	
Material - Housing	Zinc diecast Z 410; painted
Material - Foil	Polyester
Display	4 figure, 7 segment red LED; digit height 0.35 inches (9mm)

General Data	
Measuring Element	PT 1000 RTD
Electrical Protection	Short circuit, reverse polarity, overload protection
Power Supply	15...30 VDC nominal 24 VDC; protection class 3
Current Consumption	<100mA
Switching Current Max.	0.7 A/switch
Temperature Range - Media	-40° to 257° F
Temperature Range - Environmental	-13° to 176° F
Temperature Range - Storage	-40° to 185° F
Temp Error Coefficient	< +/- 0.3% FS/10K
Vibration Resistance	Meets IEC 60068-2-6
Shock Resistance	Meets IEC 60068 2-29
EMI Compatibility	DIN EN 61000-6-3 DIN EN 61000-6-2
Working Pressure	145 PSI
Media Compatibility	Non-aggressive fluid media

SCTSD Controller Mounting Options

Direct Mounting Configuration:

Accessories for Direct Mounting	
Connection Adapter	SCA-TT-10-SD-S1/2
Temperature Probe (3.9")	SCTT-10-3.9I-07
Temperature Probe (5.9")	SCTT-10-5.9I-07
Temperature Probe (9.8")	SCTT-10-9.8I-07
Immersion Tube (3.9")	SCA-TT-10-3.9I-S1/2
Immersion Tube (5.9")	SCA-TT-10-5.9I-S1/2
Immersion Tube (9.8")	SCA-TT-10-9.8I-S1/2



Remote Mounting Configuration:

Accessories for Remote Mounting	
Clamp	SCSD-S27
Cable (9.5 ft / 3 m)	SCK-410-03-45-45
Clamp Adapter	SCA-TT-10-S1/2
Temperature Probe (3.9")	SCTT-10-3.9I-07
Temperature Probe (5.9")	SCTT-10-5.9I-07
Temperature Probe (9.8")	SCTT-10-9.8I-07
Immersion Tube (3.9")	SCA-TT-10-3.9I-S1/2
Immersion Tube (5.9")	SCA-TT-10-5.9I-S1/2
Immersion Tube (9.8")	SCA-TT-10-9.8I-S1/2

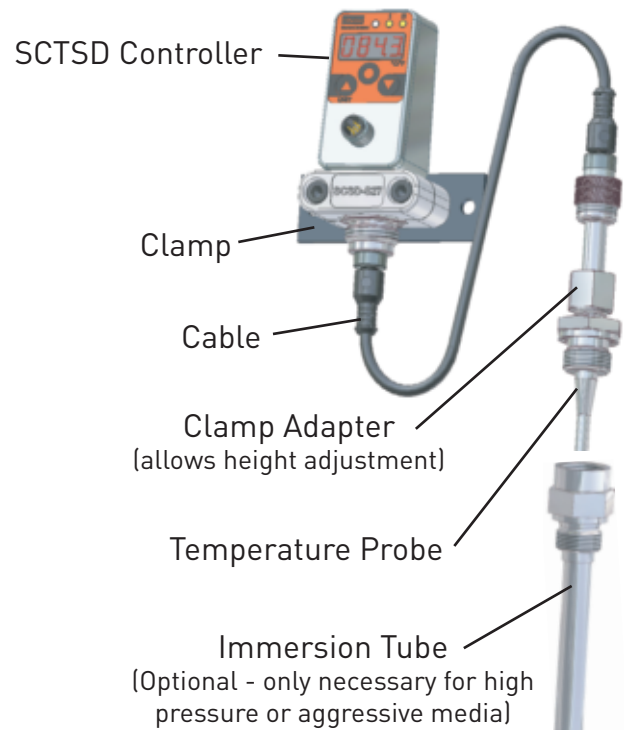


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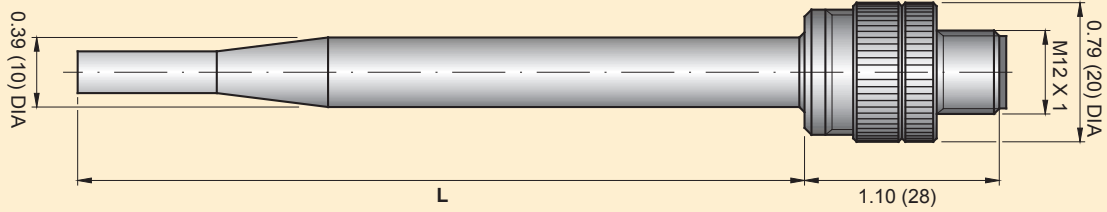
Controllers

B

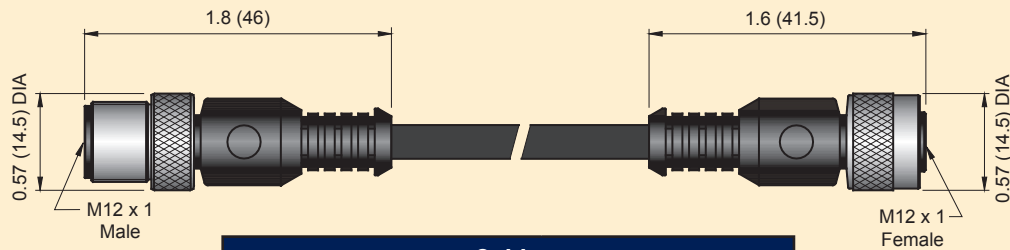
Accessories

C

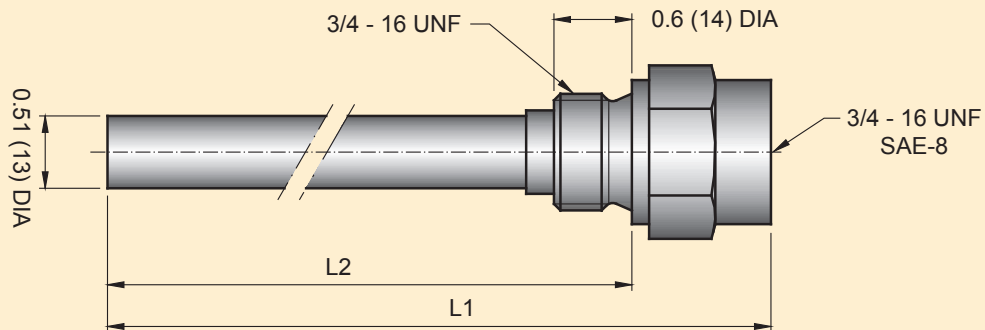
SCTSD Accessories



Temperature Probe	
Part Number	L
SCTT-10-3.9I-07	3.9 (100)
SCTT-10-5.9I-07	5.9 (150)
SCTT-10-9.8I-07	9.8 (250)



Cable	
Part Number	Length
SCK-410-03-45-45	9.85 ft (3 m)



Immersion Tube		
Part Number	L1	L2
SCA-TT-10-3.9I-S1/2	4.8 (122)	4.2 (107)
SCA-TT-10-5.9I-S1/2	6.8 (172)	6.2 (157)
SCA-TT-10-9.8I-S1/2	10.7 (272)	10.1 (257)

All dimensions are shown in inches (mm) unless otherwise specified.

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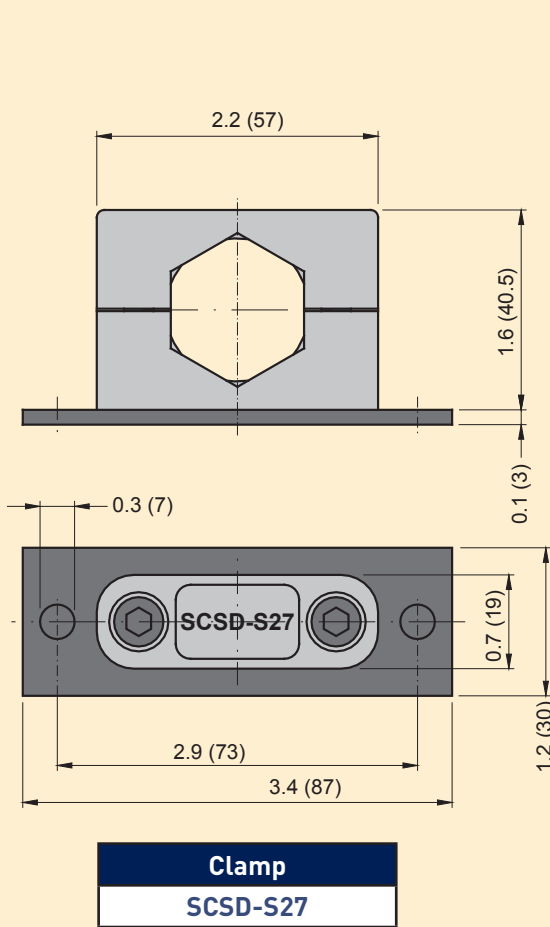
Controllers

B

Accessories

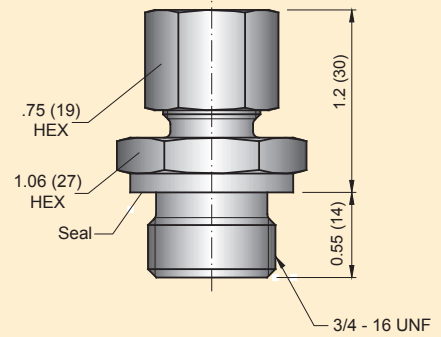
C

SCTSD Accessories

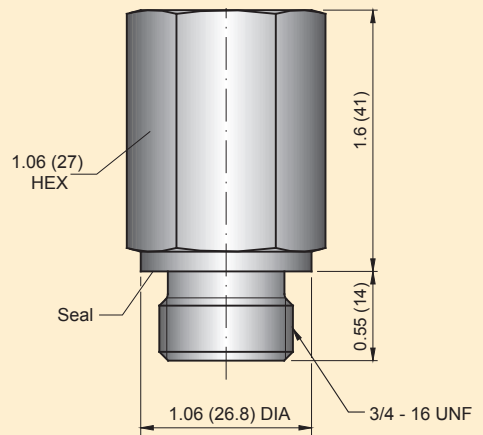


Clamp
SCSD-S27

All dimensions are shown in inches (mm).



Clamp Adapter
SCA-TT-10-S1/2



Connection Adapter
SCA-TT-10-SD-S1/2

Additional SCTSD Accessories

Refer to the Accessories in Section C for detailed information on the following items:

PC Programming Kit

SCSD-PRG-KIT includes:

- ControllerWin software
- Adapter
- Power pack

Cables (ready-made)

SCK-400-XX-XX

- Length and plug-in connection options available

Plugs (separate)

SCK-XXX

options include:

- M12, straight and 90 degree
- DIN



Applications include:

- Hydraulic Power Units
- Test Stands
- Industrial Plant and Equipment
- Power Generation Systems

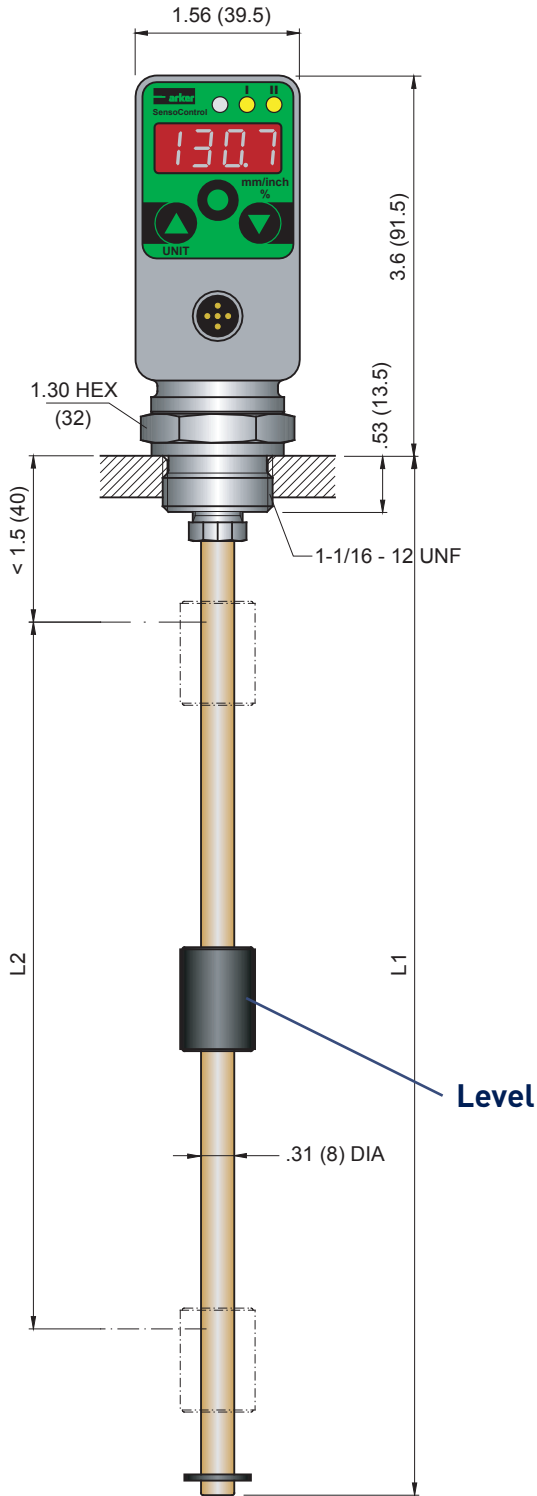
Features:

- 290° Rotatable digital display
- Vibration resistant
- Rugged housing (IP67 Rated)
- High/low level display

Parker's SCLSD Level Controller is an accurate tool for tank level media measurement. With a resolution of 0.3 inches (7.5mm), this controller provides accurate level readings for fluid system monitoring and regulation.

SCLSD Series Level Controllers

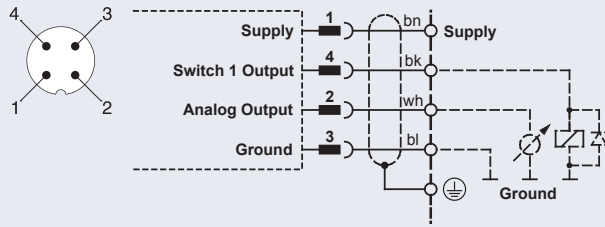
Part Number	Probe Length	Electrical Output	Port Connection	Electrical Connection	Sensing Element
SCLSD-14.6-17-07	14.6 inch	1 sw / 1 analog	1-1/16 - 12 UNF male SAE-12 with O-ring	M12 X 1, 4 pin	Resistance reed with float
SCLSD-14.6-17-05	14.6 inch	2 sw / 1 analog	1-1/16 - 12 UNF male SAE-12 with O-ring	M12 X 1, 5 pin	Resistance reed with float
SCLSD-14.6-07-07	14.6 inch	2 sw / no analog	1-1/16 - 12 UNF male SAE-12 with O-ring	M12 X 1, 4 pin	Resistance reed with float
SCLSD-20.5-17-07	20.5 inch	1 sw / 1 analog	1-1/16 - 12 UNF male SAE-12 with O-ring	M12 X 1, 4 pin	Resistance reed with float
SCLSD-20.5-17-05	20.5 inch	2 sw / 1 analog	1-1/16 - 12 UNF male SAE-12 with O-ring	M12 X 1, 5 pin	Resistance reed with float
SCLSD-20.5-07-07	20.5 inch	2 sw / no analog	1-1/16 - 12 UNF male SAE-12 with O-ring	M12 X 1, 4 pin	Resistance reed with float



Electrical Connection Options:

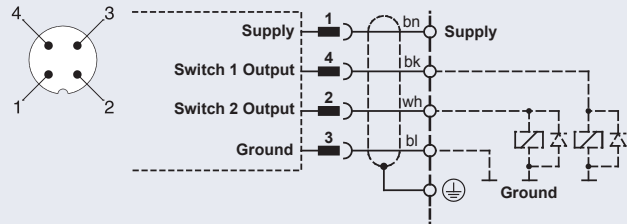
M12 X 1, 4 pin

1 switching output / 1 analog output



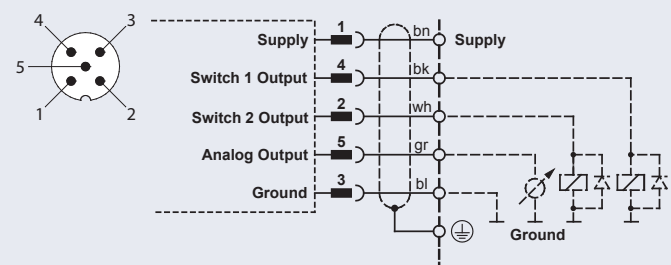
M12 X 1, 4 pin

2 switching outputs



M12 X 1, 5 pin

2 switching outputs / 1 analog output



L1 Probe Length (measurement range)	L2 Active Range
14.6 (370)	1.5 (40) - 12.9 (330)
20.5 (520)	1.5 (40) - 18.9 (480)

All dimensions are shown in inches (mm).

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Technical Specifications	
Outputs	2 PNP MOSFET switches, optional analog (4-20 mA)
Contact Functions	Normally open / closed, window / hysteresis, freely settable
Switching Point and Display Accuracy	+/- 1% FS
Protection Class	IP67
Response Speed	< 700ms
Long Term Stability	< 0.1% FS/a
Load Reversals	> 20 M
Resolution	0.2 inches (5mm)

Physical Properties	
Material - Housing	Zinc diecast Z 410; painted
Material - Fitting	Nickel plated brass
Material - Seal	Nitrile
Material - Float	Nitrile
Material - Level rod	Brass
Sensing Element	Resistance reed with float
Display	4 figure, 7 segment red LED; digit height 0.35 inches (9mm)

General Data	
Electrical Protection	Short circuit, reverse polarity, overload protection
Power Supply	15...30 VDC nominal 24 VDC; protection class 3
Switching Voltage	Power supply 1.5 VDC
Temperature Range - Environmental	-4° to 185° F
Temperature Range - Media, Storage	-40° to 212° F
Temperature Range - Compensated	-4° to 185° F
Vibration Resistance	Meets IEC 60068-2-29
Shock Resistance	Meets IEC 60068 2-32
EMI Compatibility	DIN EN 61000-6-3 DIN EN 61000-6-2
Working Pressure	14.5 psi

SCLSD Accessories

Refer to the Accessories in Section C for detailed information on the following items:

PC Programming Kit

SCSD-PRG-KIT includes:

- ControllerWin software
- Adapter
- Power pack

Cables (ready-made)

SCK-400-XX-XX

- Length and plug-in connection options available

Plugs (separate)

SCK-XXX

options include:

- M12, straight and 90 degree
- DIN

SCLSD Controller Display Options

Inch / mm Display Example

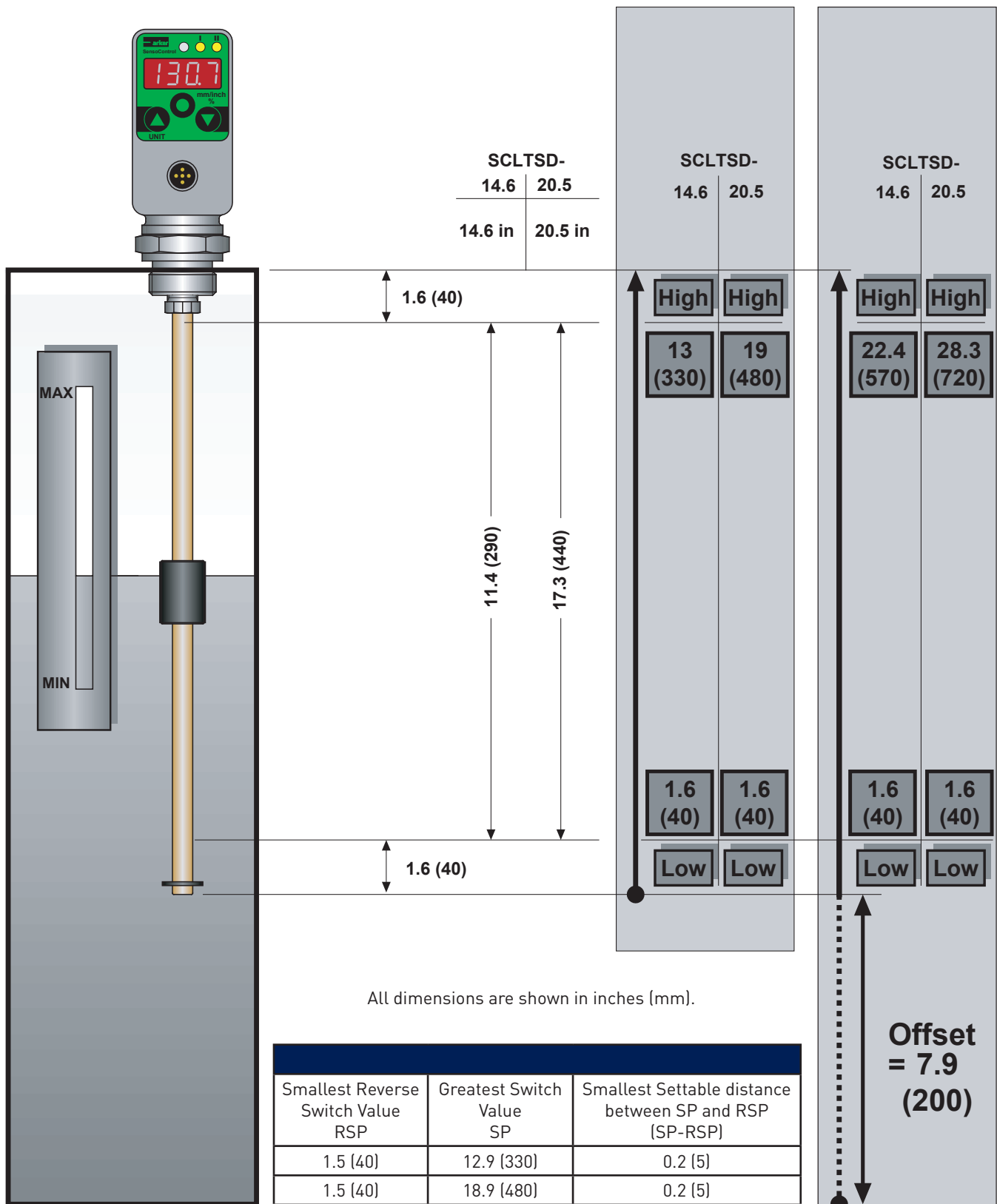


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Applications include:

- Hydraulic Power Units
- Test Stands
- Industrial Plant and Equipment
- Power Generation Systems

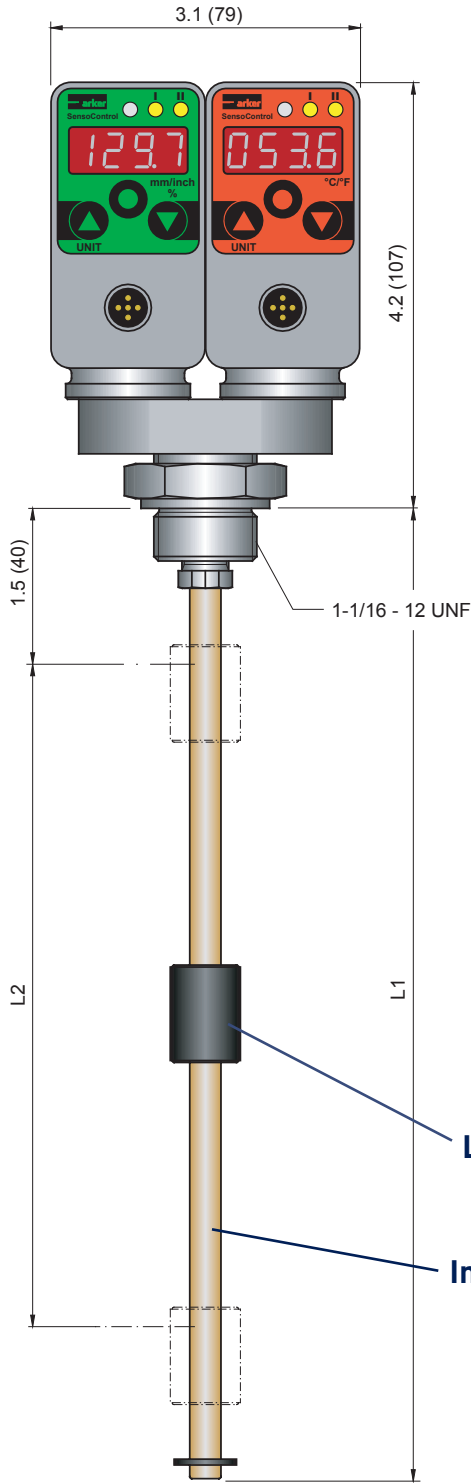
Features:

- 290° Rotatable digital display
- Vibration resistant
- Rugged housing (IP67 Rated)
- Dual function, single point access

Parker's SensoControl Level /Temperature Controllers provide a single instrument solution for monitoring two vital system parameters; fluid level and temperature. The color coded displays allow the user to easily identify tank and temperature measurements. This simple, robust solution is programmable, aiding in the regulation of critical operating parameters for fluid systems.

SCLTSD Series Level / Temperature Controllers

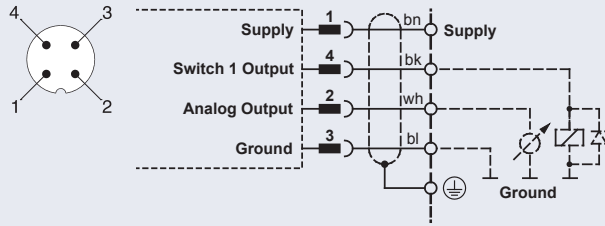
Part Number	Probe Length	Electrical Output	Port Connection	Electrical Connection
SCLTSD-14.6-17-07	14.6 inch	1 sw / 1 analog	1-1/16 - 12 UNF male SAE-12 with O-ring	M12 X 1, 4 pin
SCLTSD-14.6-17-05	14.6 inch	2 sw / 1 analog	1-1/16 - 12 UNF male SAE-12 with O-ring	M12 X 1, 5 pin
SCLTSD-14.6-07-07	14.6 inch	2 sw / no analog	1-1/16 - 12 UNF male SAE-12 with O-ring	M12 X 1, 4 pin
SCLTSD-20.5-17-07	20.5 inch	1 sw / 1 analog	1-1/16 - 12 UNF male SAE-12 with O-ring	M12 X 1, 4 pin
SCLTSD-20.5-17-05	20.5 inch	2 sw / 1 analog	1-1/16 - 12 UNF male SAE-12 with O-ring	M12 X 1, 5 pin
SCLTSD-20.5-07-07	20.5 inch	2 sw / no analog	1-1/16 - 12 UNF male SAE-12 with O-ring	M12 X 1, 4 pin



Electrical Connection Options:

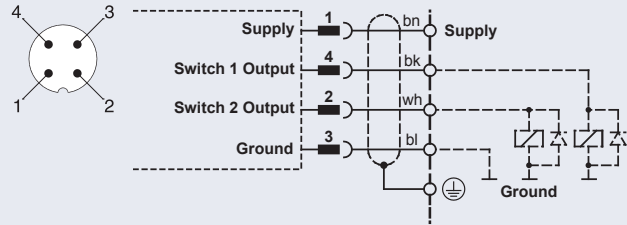
M12 X 1, 4 pin

1 switching output / 1 analog output



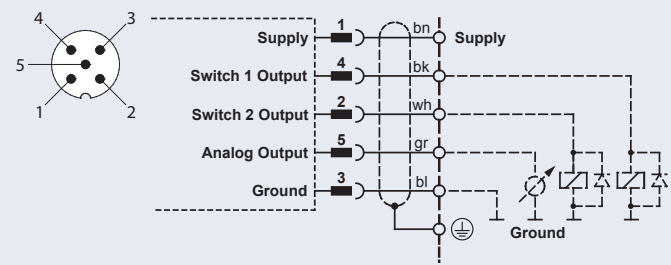
M12 X 1, 4 pin

2 switching outputs



M12 X 1, 5 pin

2 switching outputs / 1 analog output



L1 Probe Length (measurement range)	L2 Active Range
14.6 (370)	1.5 (40) - 12.9 (330)
20.5 (520)	1.5 (40) - 18.9 (480)

All dimensions are shown in inches (mm).

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Technical Specifications	
Outputs	2 PNP MOSFET switches, optional analog (4-20 mA)
Contact Functions	Normally open / closed, window / hysteresis, freely settable
Level Switching Point and Display Accuracy	+/- 1% FS
Protection Class	IP67
Response Speed	< 700ms
Long Term Stability	< 0.1% FS/a
Load Reversals	> 20 M
Level Resolution	0.2 inches (5mm)
Temperature Resolution	1° F

Physical Properties	
Material - Housing	Zinc diecasting Z 410; painted
Material - Fitting	Nickel plated brass
Material - Seal	Nitrile
Material - Float	Nitrile
Material - Level rod	Brass
Sensing Element - Level	Resistance reed with float
Sensing Element - Temperature	PT1000 RTD
Display	4 figure, 7 segment red LED; digit height 0.35 inches (9mm)

General Data	
Measuring Element	Resistance reed array with float
Electrical Protection	Short circuit, reverse polarity, overload protection
Power Supply	15...30 VDC nominal 24 VDC; protection class 3
Switching Voltage	Power supply 1.5 VDC
Temperature Range - Environmental, Media	-4° to 185° F
Temperature Range - Storage	-40° to 212° F
Temperature Coefficient	< +/- 0.3% FS/10K
Vibration Resistance	Meets IEC 60068-2-29
Shock Resistance	Meets IEC 60068 2-32
EMI Compatibility	DIN EN 61000-6-3 DIN EN 61000-6-2
Working Pressure	14.5 PSI
Media Compatibility	Water, lubricating oil, hydraulic oil, acids, and alkalis

Dimensions	
Float	0.71 inches wide, 1.38 inches long (18mm wide, 35mm long)
Level Rod	0.31 inches wide (8mm wide)

SCLTSD Accessories

Refer to the Accessories in Section C for detailed information on the following items:

PC Programming Kit

SCSD-PRG-KIT includes:

- ControllerWin software
- Adapter
- Power pack

Plugs (separate)

SCK-XXX

options include:

- M12, straight and 90 degree
- DIN

Cables (ready-made)

SCK-400-XX-XX

- Length and plug-in connection options available

SCLTSD Controller Display Options

Inch / mm Display Example

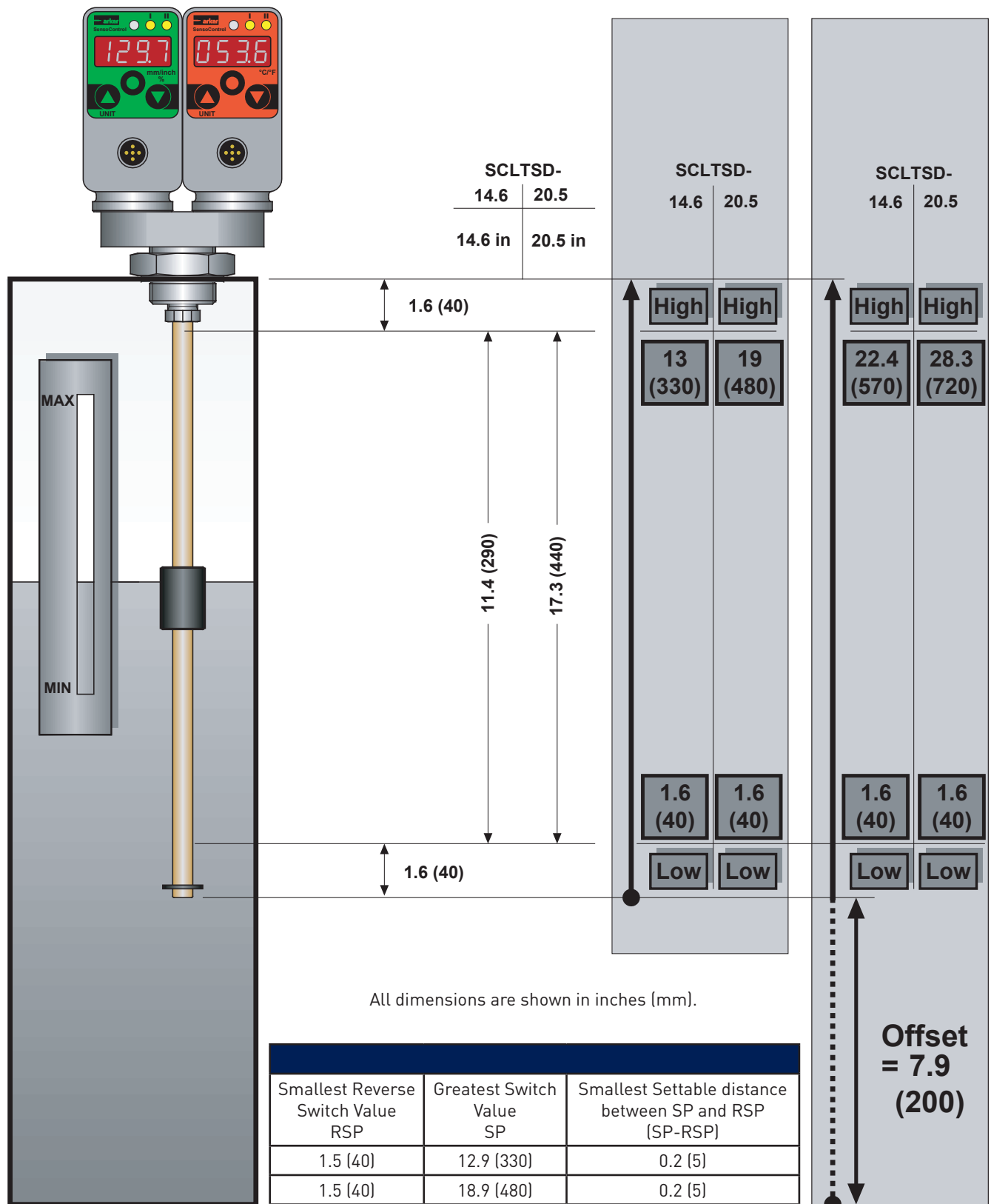


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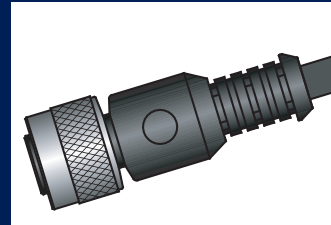
Digital Display

Page C-2



Cables and Plugs

Page C-5



PC Programming Kit

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Parker's SensoControl Accessories are designed to add flexibility and enhance the performance of our Industrial Sensors and Controllers.



The SCE-020 converts standard analog signals into clearly understandable measurement values/units and displays them to be easily read.

Compatible with:

Parker SensoControl and Other Sensors:

- Pressure
- Temperature
- Load / Torque
- Length
- Flow

Features:

- Easy to Read Digital Display
- Programmable
- Selectable Units
- Display Ranges Can Be Set
- Accepts Common Current and Voltage Signals
- Terminal Block Connection
- Loop through Function: Analog Output or Serial Interface

SCE-020 Digital Display Includes:

Display	SCE-020-02
Power Supply	SCSN-410
Data Cable	SCK-300-02-31

Input

Measurement Error	+/- 0.2% of the Display +/- 1 Digit
Measuring Rate	5ms (Limited value scanning every 5ms)
Measurement Range	Freely selectable (programming)

Display

Display	4-figure 7-segment LED
Display Range	-999 to 9999
Digit Height	13mm
Decimal Point	Freely programmable

Environmental Conditions

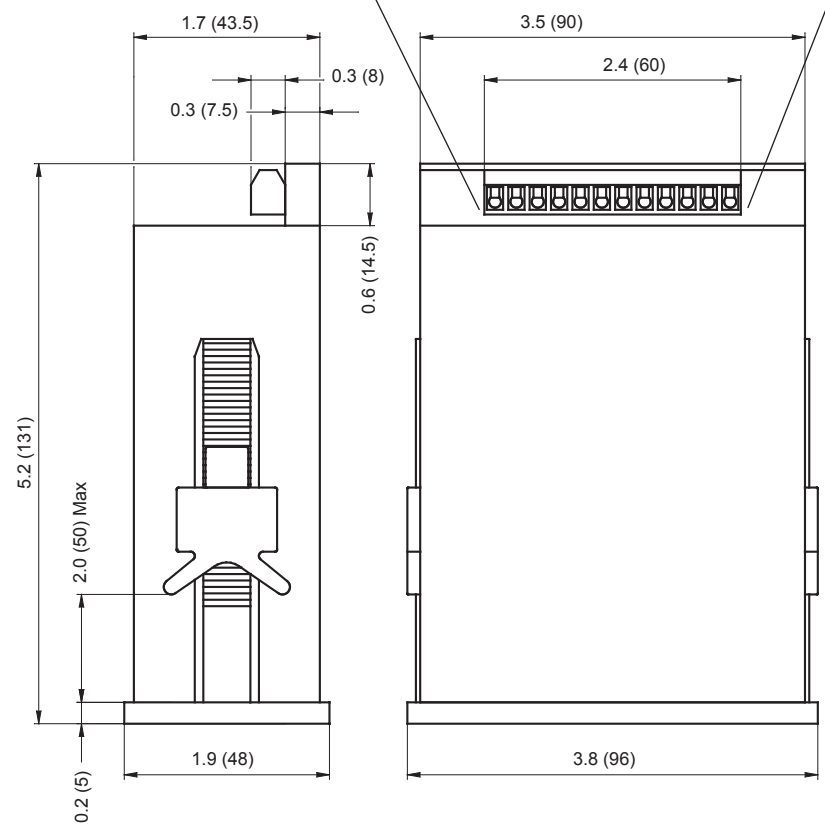
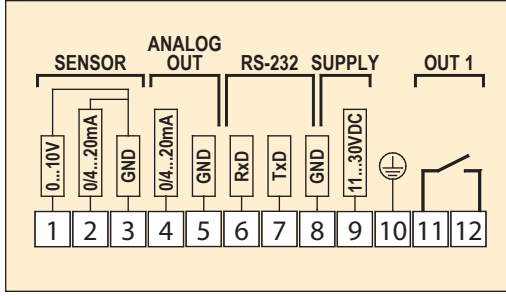
Working Temperature Range	32° -140° F
Storage Temperature Range	13° - 176° F
Relative Humidity	<80%
Protection Class	IP44 (<1mm solids, splashing H ₂ O)

Housing

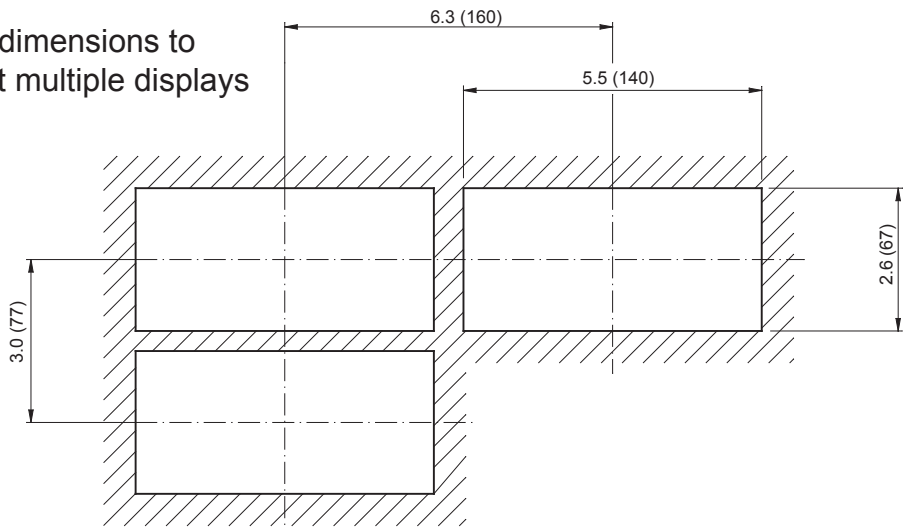
Material	PC ABS black Self-extinguishing to UL94V0 For panel and console mounting
Frontal Dimensions	96 x 48mm
Mounting Depth	131mm
Connector	12-Pole terminal strip with wire protection
Weight	Approximately 0.45 lbs

Input	0...20 mA 4...20 mA 0...10 V
Input Resistance	0...20 mA = 150 Ω 4...20 mA = 150 Ω 0...10 V = 67 KΩ
Analog Output	0...20 mA 4...20 mA
Working Resistance of Analog Output	≤500 Ω
Interface	RS-232C
Limiting Value	Potential-free normally open contact 250 V/5 A max

Connection Detail



Cut-out dimensions to panel mount multiple displays



All dimensions are shown in inches (mm).

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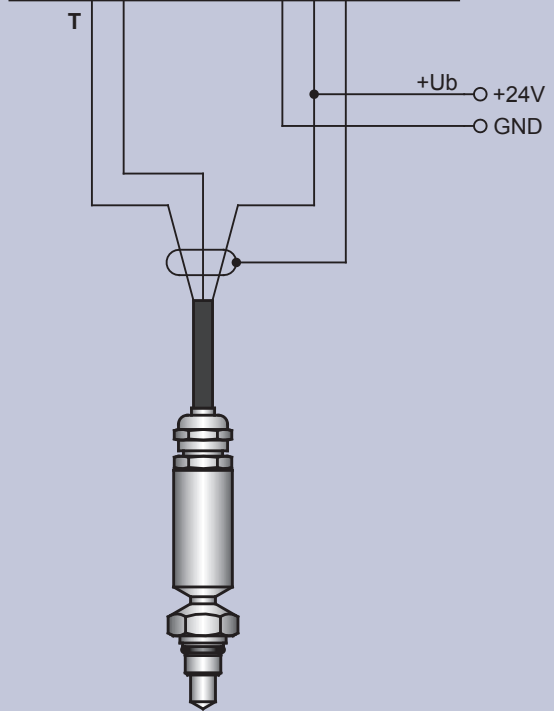
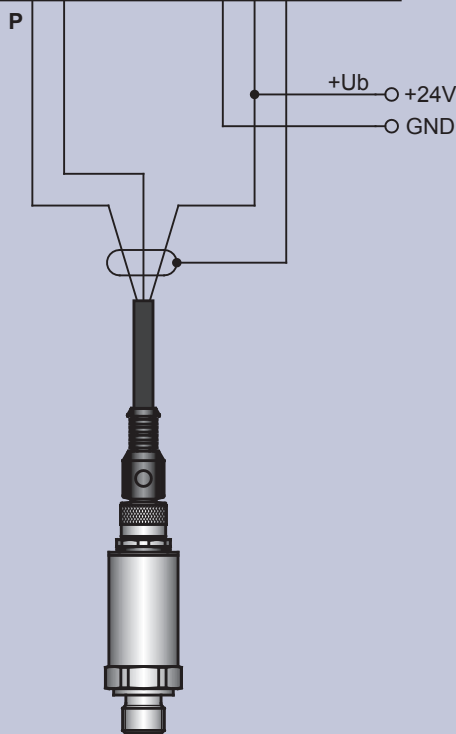
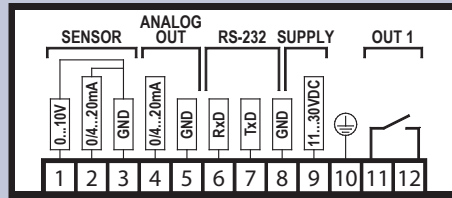
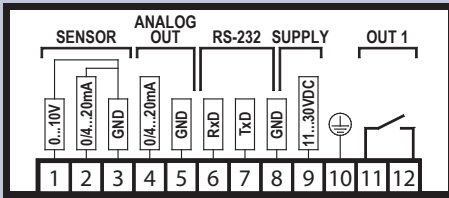
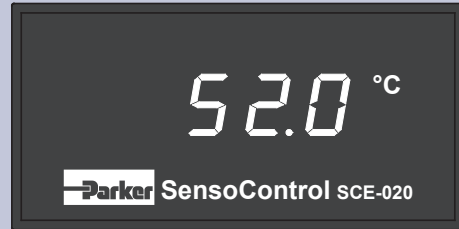
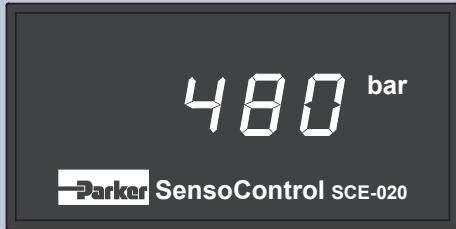
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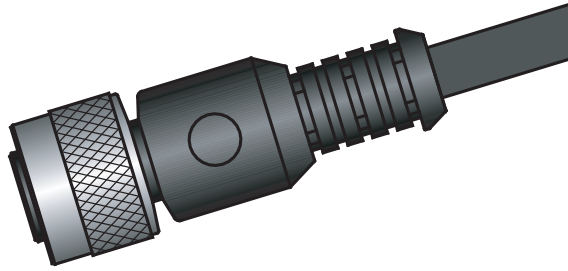
Accessories

C

SCE-020-02 used with SCP01
Pressure Sensor

SCE-020-02 used with SCT
Temperature Sensor





Compatible with:

- SensoControl Sensors
- SensoControl Controllers
- Others

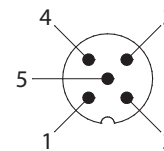
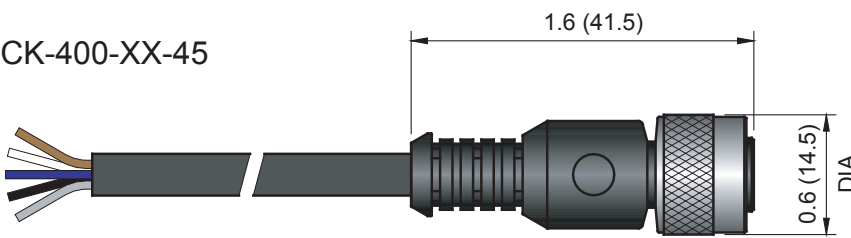
SensoControl Cables and Plugs are designed in accordance with the requirements of industrial sensors and controllers. M12 cables and plugs are shielded to protect against interference and have a five pin configuration. Five pin cables are suitable for both four and five pin connections. The five pin cables are fully compatible with sensor variants having a four pin plug.

Features:

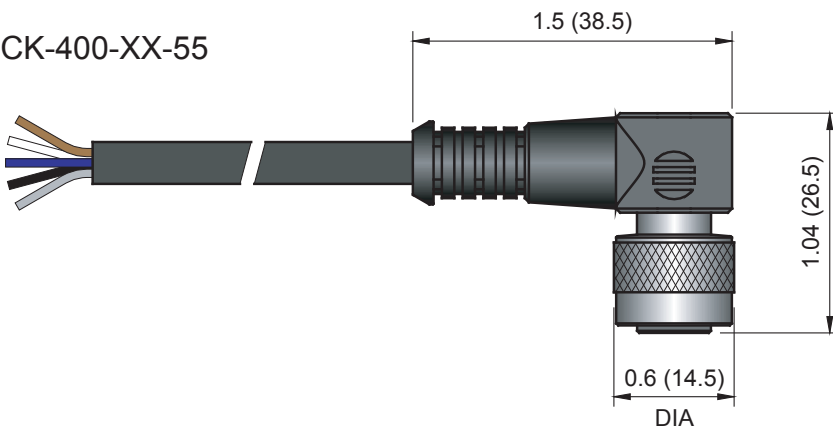
- One cable for many requirements
- Interference resistant
- Various lengths
- Compact
- Plug end options

SCK Connecting Cables (open end)		
Part Number	Cable Length (m)	Plug-in Connector
SCK-400-02-45	6.5 ft (2m)	M12 socket, straight
SCK-400-02-55	6.5 ft (2m)	M12 socket, 90°
SCK-400-05-45	16 ft (5m)	M12 socket, straight
SCK-400-05-55	16 ft (5m)	M12 socket, 90°
SCK-400-10-45	32.5 ft (10m)	M12 socket, straight
SCK-400-10-55	32.5 ft (10m)	M12 socket, 90°

SCK-400-XX-45



SCK-400-XX-55



Pin	Wire Color Code
1	Brown (bn)
2	White (wh)
3	Blue (bl)
4	Black (bk)
5	Grey (gr)

All dimensions are shown in inches (mm) unless otherwise specified.

Table of Contents

Sensors

A

Controllers

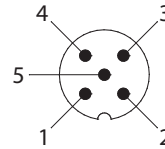
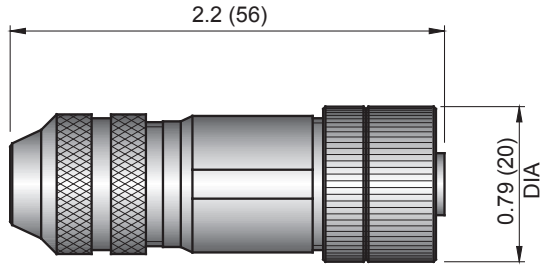
B

Accessories

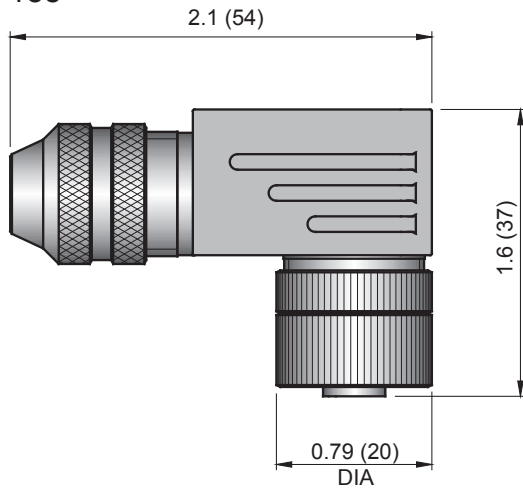
C

SCK Separate Plugs	
Part Number	Plug-in Connector
SCK-145	M12 socket, straight
SCK-155	M12 socket, 90°
SCK-006	DIN EN 175301-803 form A

SCK-145

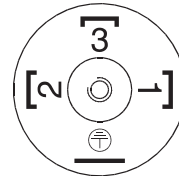
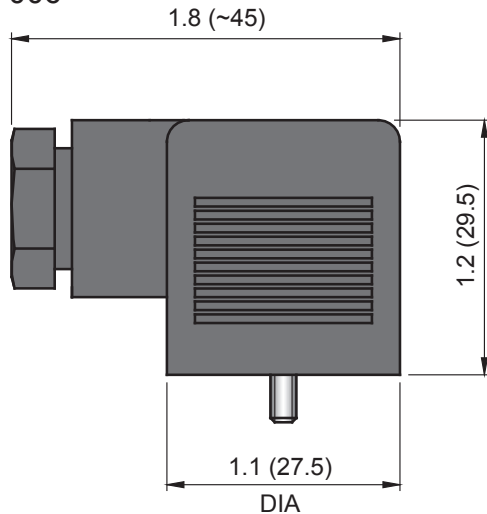


SCK-155



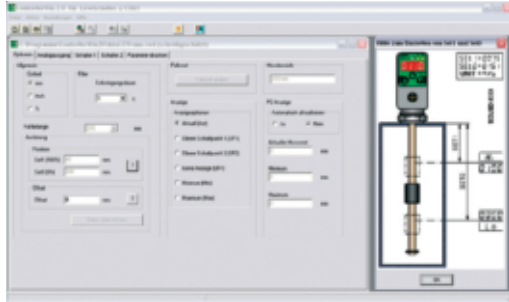
Pin	Wire Color Code
1	Brown (bn)
2	White (wh)
3	Blue (bl)
4	Black (bk)
5	Grey (gr)

SCK-006



Pin	Wire Color Code
1	Yellow (ye)
2	Green (gn)
3	Brown (bn)
⊕	

All dimensions are shown in inches (mm).



The SCSD-PRG-KIT, PC Programming Kit with ControllerWIN software makes the setting and saving of all parameters possible. The infrared adapter connects to the controller, allowing transmission of data to a laptop or PC. Kit includes adapter, software, and power pack.

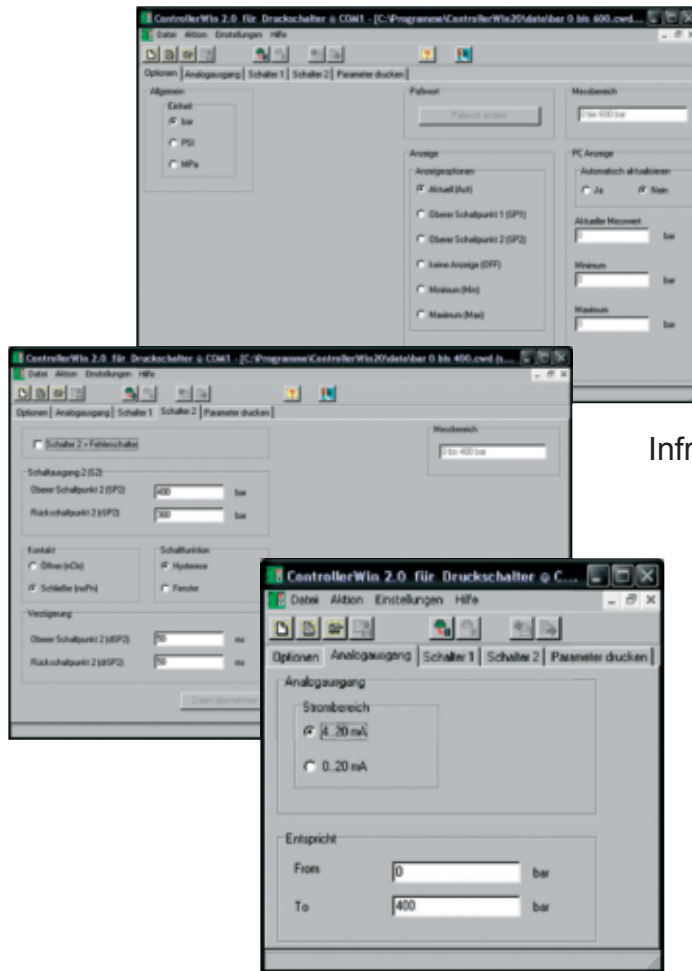
Compatible with:

- Parker SensoControl Controllers

Features:

- Easy set up with PC
- Save parameter settings
- Infrared interface
- Password protection

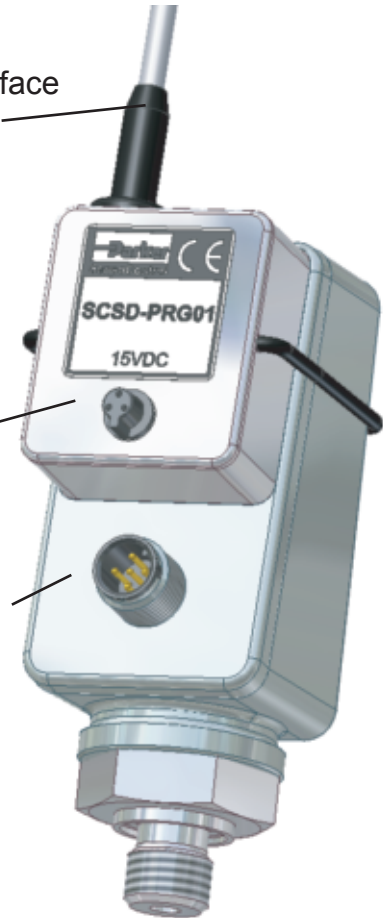
PC Programming Kit SCSD-PRG-KIT



RS232 Interface Cable

Infrared Adapter

SensoControl Controller



System Prerequisites:	
Operating System	Win 98/2000/ME/NT/XP
PC/Laptop Connection	RS 232 (USB Adapter)
Controller Connection	Parker SCXSD/SCOTC Infrared Interface

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