Intuitive monitor for speed and standstill

Easy and reliable rotational speed monitoring and standstill detection

- **Intuitive handling via potentiometer**
- **Rotational speed detection using standard sensors**
- **Small design requiring only very little space**
- **Integrated wide-range power supply (24...27 V DC, 110...240 V AC)**
- **Plug-in screw terminals simplify installation**

Low-cost evaluation of rotational speeds

The new rotational speed evaluation systems DD0203 and DD0296 supply the basic functions of rotational speed monitoring and standstill detection by means of external pulse pick-up (sensor). All settings are intuitive via four potentiometers: The rotational speed is set using a logarithmic scale, multiplier (x1 / x100) and output function, start-up delay and hysteresis.

They feature one semiconductor output and one relay output. They open or close (function can be set) in case of underspeed or overspeed (can also be set).

Four LEDs indicate the switching and operating states.

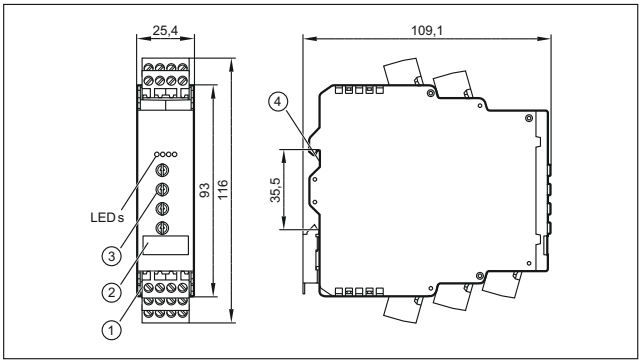
The integrated wide-range power supply for voltage supply from direct or alternating voltage guarantees high flexibility. A 24 V DC output supplies power to the connected sensors.

Thanks to their compatible functions, these new evaluation systems have replaced the old DA0001/DD0116 and DA0001/DA0116 units.

Use for rotational speed monitoring on conveyor belts, worm gears and elevators.

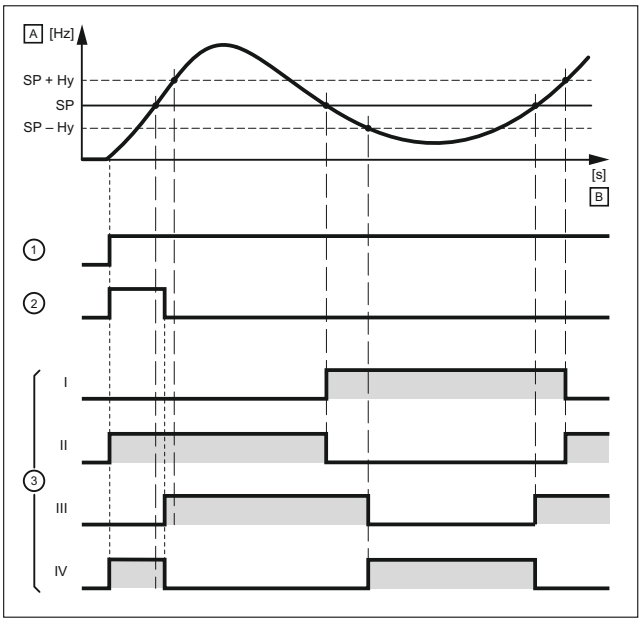
Type	U_b [V]	Setting range [Hz]	Outputs analogue	Outputs relay	Outputs transistor	Order no.
1 pulse input PNP (type 2 to IEC 61131-2)						
	110...240 AC / 27 (typ. 24) DC 50...60 Hz	0.1...10 / 10...1000	–	1	1	**DD0203**
	110...240 AC / 27 (typ. 24) DC 50...60 Hz	0.2...20 / 20...2000	–	1	1	**DD0296**

Dimensions



1) plug-in screw terminals
2) panel for labelling
3) potentiometer
4) DIN rail mounting

Switching diagram



The upper diagram shows a rotational speed curve including switch point (SP, adjustable) and hysteresis (Hy, adjustable) as well as input frequency (A) as a measure for the rotational speed or speed during the time (B)
1) voltage supply of the speed monitor
2) start-up delay (adjustable), suppresses the monitoring when the machine is started
3) switching output according to the set function
I: Monitoring of underspeed, normally open function
II: Monitoring of underspeed, normally closed function
III: Monitoring of overspeed, normally open function
IV: Monitoring of overspeed, normally closed function

Common technical data		
Application: Evaluation of pulse sequences with regard to overspeed and underspeed; speed monitoring		
Relay output Contact rating	[A]	4 (240 V AC, 24 V DC); resistive load
Transistor output Switching voltage Current rating	[V] [mA]	10...30 DC SELV ≤ 100
Auxiliary energy for sensors	[V]	18.5...30 DC SELV, ≤ 100 mA
Protection rating housing / terminals		IP 20 / IP 20
Ambient temperature	[°C]	-25...60
Display	LED power supply input signal output release	 1 x green 1 x yellow 1 x green (lights when the output relay is energised) 1 x yellow
Housing material		plastic: PC GF20

Wiring diagram