Robust speed sensors – for the first time with ATEX approval and IO-Link

Speed sensors

- **Robust M30 metal housing, no additional impact protection housing required**
- **ATEX approval group II, category 3D**
- **Ideal in combination with a PLC**
- **Flush installation**
- **Detect actual speed and set parameters via IO-Link**

Compact speed monitoring

The new speed sensors are the compact solution for speed monitoring because the evaluation electronics are integrated in the sensor housing.

The limit at the speed of which the output switches is set via a potentiometer or IO-Link. Both rotary and linear movements can be monitored for overspeed, underspeed and blockage.

As compared to its predecessors, these new sensors feature a robust metal housing for flush mounting. A special version with ATEX approval is available for which no additional impact protection is required.

Operating voltage [V]	Start-up-delay [s]	Ambient temperature [°C]	Max. load current [mA]	ATEX approval	Order no.
M30 x 1.5 inductive sensor · connection cable					
24 DC	15	-25...80	250 DC (80 °C)	–	**DI5026**
24 DC	15	-25...60	250 DC (60 °C)	Group II, category 3D	**DI523A**

Applications

Especially in the field of conveying technology the compact speed sensors can be used for various applications, for example for monitoring belt conveyors or bucket elevators. Here they are typically used to monitor underspeed, blockage or standstill.

Advantages

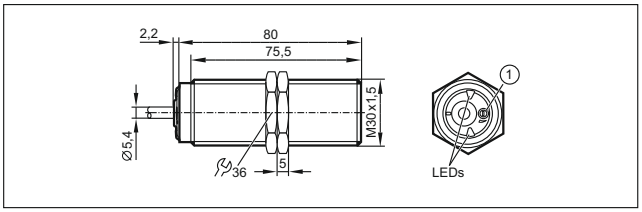
The speed sensors incorporate the complete speed monitoring. The switch point can be set using a multiturn potentiometer.
IO-Link provides additional functions such as remote information about the current speed or the switch point and the configuration of important additional parameters such as the start-up delay time.
This allows direct communication with the controller or the SMARTOBSERVER.

Operation

The integrated sensor is damped by passing cams or other metallic targets. The evaluation unit determines the period duration or the frequency (actual rotational speed value) on the basis of the time interval between damping and compares it to the set switch point (preset value).
The output is switched during the start-up delay and when the rotational speed exceeds the set switching value.

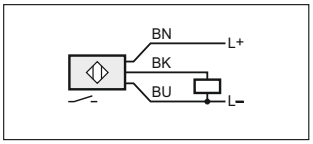
An LED signals underspeed and switch-off of the output.

Dimensions



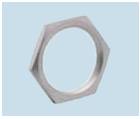
1) potentiometer

Wiring



Further technical data		
Setting range	[pulses/min]	5...3600
Switch point setting		Multiturn potentiometer
Protection rating		IP 65, IP 67
Protection class		II
Switching status indication	LED	2 x yellow
Housing materials		Brass special coating; PA (Polyamid); TPE-U
Connection		PUR cable, 2m

Accessories

Type	Description	Order no.
	Clamp with damping cams	**E89013**
	Target wheel	**E89010**
	Angle bracket for M30 types	**E10737**
	Lock nuts, nickel-plated brass	**E10030**
	Lock nuts, high-grade stainless steel (316Ti/1.4571)	**E10031**
	Mounting set, free-standing M12 clamp mounting, Ø 30.2 mm	**E20873**
	Mounting set, aluminium profile clamp mounting, Ø 30.2 mm	**E20875**
	USB IO-Link master for parameter setting and analysis of units Supported communication protocols: IO-Link (4.8, 38.4 and 230 Kbits/s)	**E30390**
	LR DEVICE (supplied on USB flash drive) Software for online and offline parameter setting of IO-Link sensors and actuators	**QA0011**