BALLUFF

Added value for the standard sensor

BOS 18M PHOTOELECTRIC SENSOR WITH IO-LINK

Factory automation requires reliable and precise detection of objects in various applications with photoelectrics. Balluff has incorporated IO-Link functionality of remote teaching, diagnostics, and parametrization into the widely used 18 mm tubular housing. IO-Link functionality includes multiple switching modes for reliable detection and multiple teaching options for easier integration and better stability.
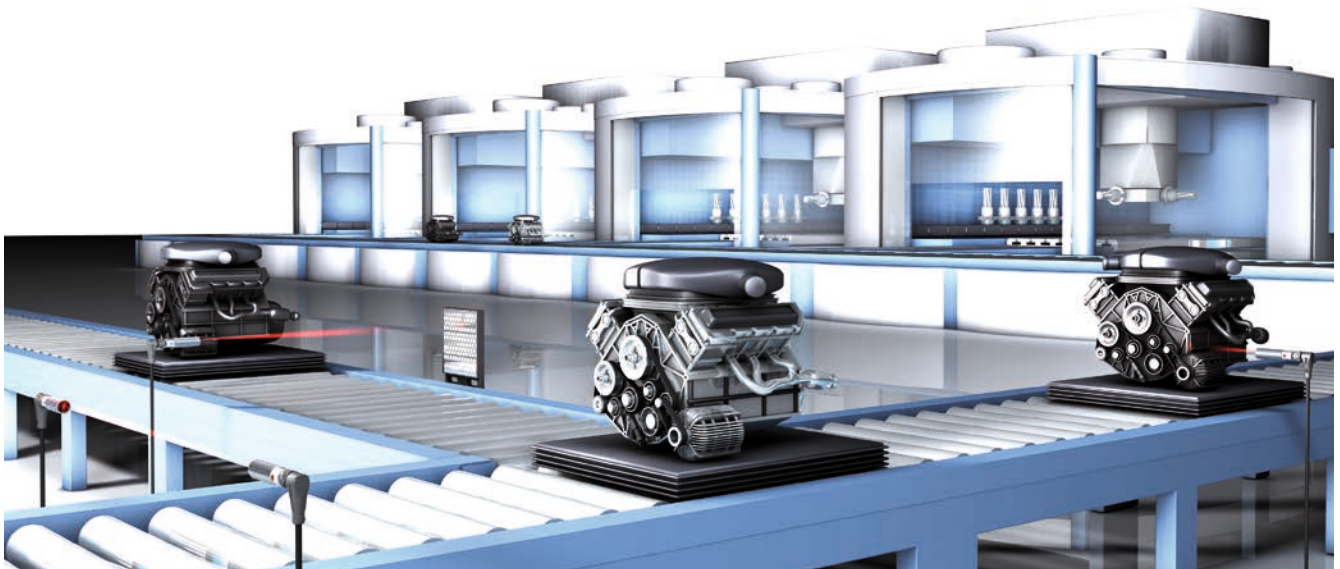
The added diagnostics provide faster troubleshooting which translates into more up time and productivity. Sensing modes include diffuse, retroreflective and through-beam. These sensors incorporate a bright red light for easy alignment. In addition, the sensors can be taught with the integral pushbutton enabling quick and easy integration.

Applications: part presence, general automation, error proofing, and assembly.

Industries: automotive, material handling, machine tool, packaging, and assembly robotics.

Features

- Convenient configuration via IO-Link and teach-in
- Easy alignment thanks to bright light spot
- Active monitoring of the emitter LED
- Extensive configuration options

BOS 18M WITH IO-LINK

PNP, IO-Link	BOS01UA	BOS01UE		BOS01UC
PNP, IO-Link, emitter			BOS01UF	
Type	Diffuse	Reflective, polarized	Through-beam emitter	Through-beam receiver
Detection range	1...500 mm	0...5 m	0...20 m	0...20 m
Supply voltage U_S	18...30 V DC	18...30 V DC	18...30 V DC	18...30 V DC
Output current max.	100 mA	100 mA	100 mA	100 mA
No-load supply current 10 max.	40 mA	40 mA	40 mA	40 mA
Polarity reversal/short-circuit protected	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
Settings	Teach button	Teach button		Teach button
Emitter/light type	LED, red light	LED, red light	LED, red light	
Switching frequency f	500 Hz	500 Hz		400 Hz
Degree of protection as per IEC 60529	IP 67	IP 67	IP 67	IP 67
Ambient temperature T_a	-5...+55 °C	-5...+55 °C	-5...+55 °C	-5...+55 °C
Dimensions	Ø18 mm x 75.0 mm	Ø18 mm x 75.0 mm	Ø18 mm x 75.0 mm	Ø18 mm x 75.0 mm
Housing material	Nickel-plated brass	Nickel-plated brass	Nickel-plated brass	Nickel-plated brass
Optical surface	Glass	Glass	Glass	Glass
IO-Link data	38.4 kbps (COM2)	38.4 kbps (COM2)	38.4 kbps (COM2)	38.4 kbps (COM2)
IO-Link functions	Configuration of switching modes, teach-in, diagnostic info (monitoring emitter diode), additional functions in accordance with the smart sensor profile			
Approvals/Certifications	cULc, CE	cULc, CE	cULc, CE	cULc, CE
Connection	M12 connector, 4-pin	M12 connector, 4-pin	M12 connector, 4-pin	M12 connector, 4-pin

ACCESSORIES

	BAM00F2	BAM00EY	BAM00UK	BAM00WL
Description	Clamping holder	Mounting bracket	Reflector Ø84 mm	Reflector 51x51 mm

CONNECTORS

	BCC0HMC	BCC05TH	BCC0EUH	BCC0C8N
Connector 1	M12 female straight, 5 pole	M12 female angled, 5 pole	M12 female straight, 5 pole	M12 female angled, 5 pole
Connector 2			M12 male straight, 4 pole	M12 male angled, 4 pole