product news

ifm electronic

Position sensors and object recognition

Keep track of detail – detection of small metal parts.

Inductive ring and tube sensors.

- Static and dynamic versions.
- High resolution: even steel balls with Ø 0.6 mm are reliably detected.
- Extremely quick with a response time of 0.2 ms.
- Pulse stretching and sensitivity adjustable via potentiometer.
- Choice between normally closed or normally open.

Detection of >minute< objects

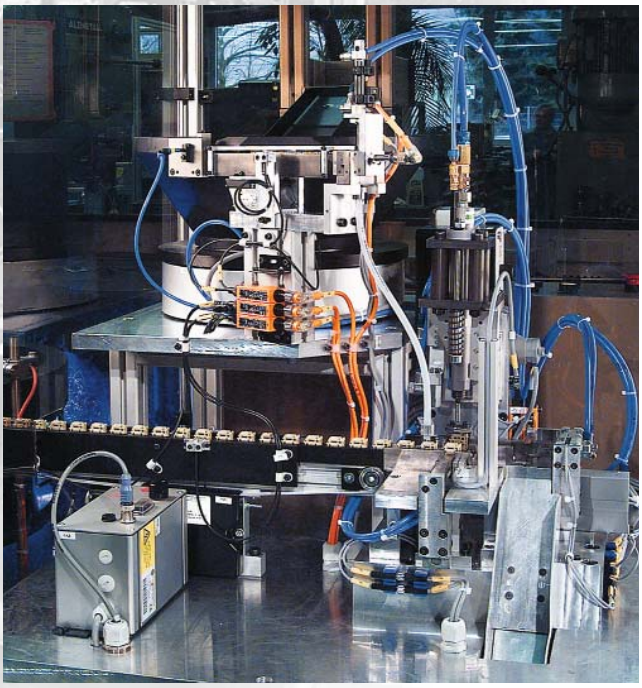
NO/NC programmable

Easy-to-use

IP 67

Static sensors operate like inductive proximity sensors. They generate an output signal as long as there is metal in the detection zone. So, feed processes for example with falling screws or jam monitoring can be implemented.

Dynamic sensors are used when particularly small parts are to be detected. During a damping operation a short pulse is generated at the output of the sensor, adjustable from 0.1 to 150 ms. The high resolution is maintained for a long time even in case of metal contamination on the tube.



fluid sensors and diagnostic systems

position sensors and object recognition

bus, identification and control systems

Ring sensors

Ring diameter [mm]	Operating principle	Resolution Steel ball [Ø mm]	Part speed [ms]	Pulse stretching [ms]	Response time / fall time [ms]	Order no.
M12 connector · Output function ⎓ / ⏚ · 3-wire DC PNP						
10.1	static	1.5	< 35	10...150	0.5 / 10	**I7R201**
10.1	dynamic	0.6	< 35	0.1...150	0.2 / 0.2	**I7R203**
15.1	static	2	< 35	10...150	0.5 / 10	**I7R205**
15.1	dynamic	0.8	< 35	0.1...150	0.2 / 0.2	**I7R207**
20.1	static	2.5	< 35	10...150	0.5 / 10	**I7R209**
20.1	dynamic	1	< 35	0.1...150	0.2 / 0.2	**I7R211**
25.1	static	3	< 35	10...150	0.5 / 10	**I7R213**
25.1	dynamic	1.2	< 35	0.1...150	0.2 / 0.2	**I7R215**
M12 connector · Output function ⎓ / ⏚ · 3-wire DC NPN						
10.1	static	1.5	< 35	10...150	0.5 / 10	**I7R202**
10.1	dynamic	0.6	< 35	0.1...150	0.2 / 0.2	**I7R204**
15.1	static	2	< 35	10...150	0.5 / 10	**I7R206**
15.1	dynamic	0.8	< 35	0.1...150	0.2 / 0.2	**I7R208**
20.1	static	2.5	< 35	10...150	0.5 / 10	**I7R210**
20.1	dynamic	1	< 35	0.1...150	0.2 / 0.2	**I7R212**
25.1	static	3	< 35	10...150	0.5 / 10	**I7R214**
25.1	dynamic	1.2	< 35	0.1...150	0.2 / 0.2	**I7R216**

Tube sensors

Sensing range [mm]	Operating principle	Resolution Steel ball [Ø mm]	Part speed [ms]	Pulse stretching [ms]	Response time / fall time [ms]	Order no.
M8 connector · Output function ⎓ · 3-wire DC PNP						
14	static	3	< 35	100	0.5 / 100	**I85000**
20	dynamic	1	< 35	100	0.2 / 100	**I85004**
M8 connector · Output function ⎓ · 3-wire DC NPN						
14	static	3	< 35	100	0.5 / 100	**I85001**
20	dynamic	1	< 35	100	0.2 / 100	**I85005**
M12 cable plug 0.09 m · Output function ⎓ · 3-wire DC PNP						
14	static	3	< 35	100	0.5 / 100	**I85002**
20	dynamic	1	< 35	100	0.2 / 100	**I85006**
M12 cable plug 0.09 m · Output function ⎓ · 3-wire DC NPN						
14	static	3	< 35	100	0.5 / 100	**I85003**
20	dynamic	1	< 35	100	0.2 / 100	**I85007**

Connectors and splitter boxes

Type	Description	Order no.
	Socket, M12, 2 m black, PUR cable	**EVC001**
	Socket, M12, 5 m black, PUR cable	**EVC002**
	Socket, M12, 2 m black, PUR cable	**EVC004**
	Socket, M12, 5 m black, PUR cable	**EVC005**

Common technical data		
Operating voltage	[V DC]	10…35
Current rating	[mA]	200
Current consumption	[mA]	< 25
Voltage drop	[V]	< 2
Ambient temperature	[°C]	-25...70
Protection		IP 67

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