Inductive Sensors with IO-Link

Inductive Sensors with IO-Link permit uninterrupted data communication from the controller all the way down to the field level. Diagnostic information for preventive maintenance measures can thus be queried continuously from the sensor's error output and increases system availability. Three selectable switching distances and selection of either high or low frequency offer additional flexibility, and decrease the number of variants thus reducing inventory costs. Furthermore, a broad range of configuration options is made available via IO-Link. For example, the sensor's output function can be programmed as normally closed (NC), normally open (NO) or antivalent (NO and NC). The switching output can be configured as either PNP or NPN.

Application examples:

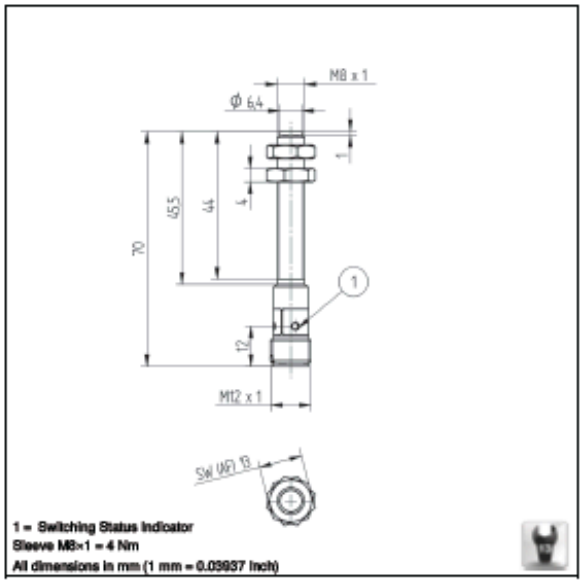
- End-position detection
- Position detection
- Material tracking
- Part recognition

Inductive Sensor
with IO-Link

4 mm
M8 × 1

Range
semi-flush

weproTec



1 = Switching Status Indicator
Sleeve M8×1 = 4 Nm
All dimensions in mm (1 mm = 0.03937 Inch)

Technical Data

Inductive Data	
Switching Distance	4 mm
Standard Target	12 × 12 mm
Correction Factors Stainless Steel V2A/CuZn/Al	1,07/0,50/0,48
Mounting	semi-flush
Mounting A/B/C/D in mm	8/17/12/3
Mounting B1 in mm	0...6
Switching Hysteresis	< 10 %
Electrical Data	
Supply Voltage	10...30 V DC
Supply Voltage with IO-Link	18...30 V DC
Current Consumption (Ub = 24 V)	< 12 mA
Switching Frequency	760 Hz
Temperature Drift	< 10 %
Temperature Range	-40...80 °C
Switching Output Voltage Drop	< 1 V
Switching Output/Switching Current	150 mA
Residual Current Switching Output	< 100 µA
Short Circuit Protection	yes
Reverse Polarity and Overload Protection	yes
Interface	IO-Link V1.0
Protection Class	III
Mechanical Data	
Housing Material	CuZn, nickel-plated
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	3706,54 a

	Plug Version
Part Number	IO6H025
IO-Link	●
Switchable to NC/NO	●
Configurable as PNP/NPN/Push-Pull	●
Programmable error output	●
Connection Diagram No.	704
Suitable Connection Technology No.	2
Suitable Mounting Technology No.	200 202
Error Indicator	yes
Programmable switching distance	2,5/3/4 mm
Programmable switching frequency	yes

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Complementary Products

IO-Link Master
Software

wenglorMEL

Inductive Sensor
with IO-Link

6 mm M8 × 1

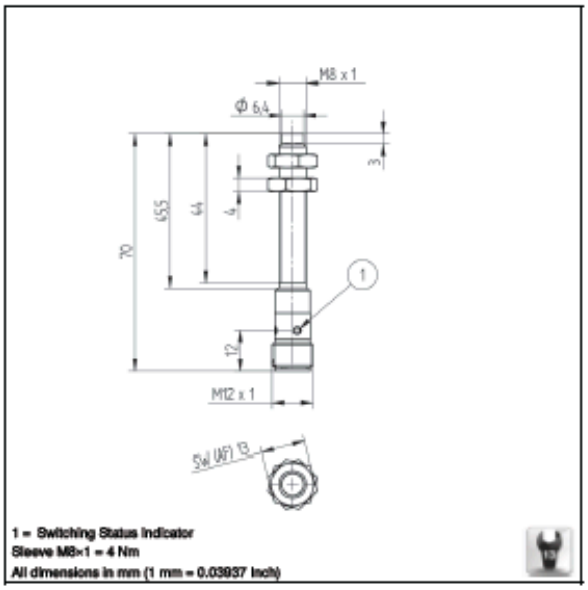
Range
non-flush

wenglor
the innovative family

weproTec

Technical Data

Inductive Data	
Switching Distance	6 mm
Standard Target	18 × 18 mm
Correction Factors Stainless Steel V2A/CuZn/Al	1,01/0,59/0,55
Mounting	non-flush
Mounting A/B/C/D in mm	8/25/18/12
Mounting B1 in mm	0...7
Switching Hysteresis	< 10 %
Electrical Data	
Supply Voltage	10...30 V DC
Supply Voltage with IO-Link	18...30 V DC
Current Consumption (Ub = 24 V)	< 11 mA
Switching Frequency	750 Hz
Temperature Drift	< 10 %
Temperature Range	-40...80 °C
Switching Output Voltage Drop	< 1 V
Switching Output/Switching Current	150 mA
Residual Current Switching Output	< 100 µA
Short Circuit Protection	yes
Reverse Polarity and Overload Protection	yes
Interface	IO-Link V1.0
Protection Class	III
Mechanical Data	
Housing Material	CuZn, nickel-plated
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	3706,54 a



1 = Switching Status Indicator
Sleeve M8×1 = 4 Nm
All dimensions in mm (1 mm = 0.03937 Inch)

	Plug Version
	Part Number: IO6H026
IO-Link	●
Switchable to NC/NO	●
Configurable as PNP/NPN/Push-Pull	●
Error Output	●
Connection Diagram No.	704
Suitable Connection Technology No.	2
Suitable Mounting Technology No.	200 203
Error Indicator	yes
Programmable switching distance	4/5/6 mm
Programmable switching frequency	yes

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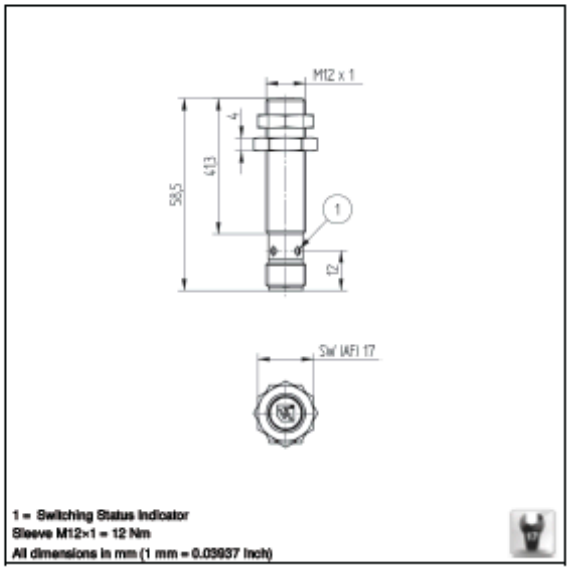
Complementary Products

IO-Link Master
Software

Inductive Sensor
with IO-Link

6 mm
M12 × 1

Range
semi-flush



1 = Switching Status Indicator
Sleeve M12×1 = 12 Nm
All dimensions in mm (1 mm = 0.03937 Inch)

weproTec

Technical Data

Inductive Data	
Switching Distance	6 mm
Standard Target	18 × 18 mm
Correction Factors Stainless Steel V2A/CuZn/Al	1,11/0,53/0,50
Mounting	semi-flush
Mounting A/B/C/D in mm	12/26/18/4
Mounting B1 in mm	0...13
Switching Hysteresis	< 10 %
Electrical Data	
Supply Voltage	10...30 V DC
Supply Voltage with IO-Link	18...30 V DC
Current Consumption (Ub = 24 V)	< 12 mA
Switching Frequency	770 Hz
Temperature Drift	< 10 %
Temperature Range	-40...80 °C
Switching Output Voltage Drop	< 1 V
Switching Output/Switching Current	150 mA
Residual Current Switching Output	< 100 µA
Short Circuit Protection	yes
Reverse Polarity and Overload Protection	yes
Interface	IO-Link V1.0
Protection Class	III
Mechanical Data	
Housing Material	CuZn, nickel-plated
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	3706,54 a

Part Number	Plug Version: I12H019
IO-Link	●
Switchable to NC/NO	●
Configurable as PNP/NPN/Push-Pull	●
Programmable error output	●
Connection Diagram No.	704
Suitable Connection Technology No.	2
Suitable Mounting Technology No.	170 172
Error Indicator	yes
Programmable switching distance	4/5/6 mm
Programmable switching frequency	yes

Connection Diagrams page 116

Complementary Products

IO-Link Master
Software

wenglorMEL

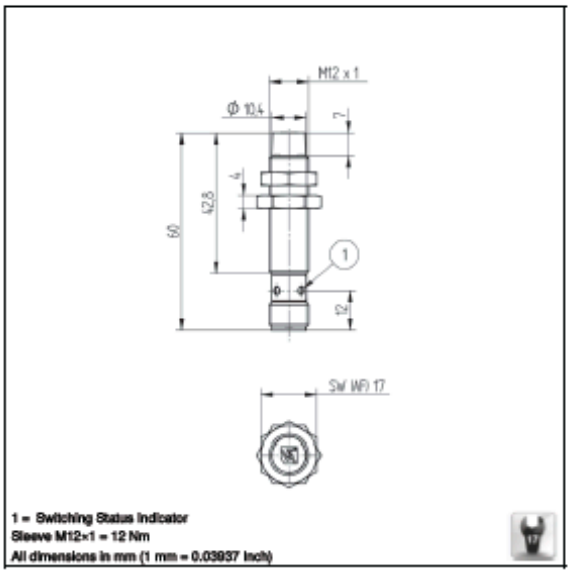
Inductive Sensor
with IO-Link

12 mm
M12 × 1

Range
non-flush

wenglor
the innovative family

weproTec



1 = Switching Status Indicator
Sleeve M12×1 = 12 Nm
All dimensions in mm (1 mm = 0.03937 inch)

Technical Data

Inductive Data	
Switching Distance	12 mm
Standard Target	36 × 36 mm
Correction Factors Stainless Steel V2A/CuZn/Al	1,05/0,54/0,52
Mounting	non-flush
Mounting A/B/C/D in mm	20/40/36/14
Mounting B1 in mm	0...14
Switching Hysteresis	< 10 %
Electrical Data	
Supply Voltage	10...30 V DC
Supply Voltage with IO-Link	18...30 V DC
Current Consumption (Ub = 24 V)	< 14 mA
Switching Frequency	360 Hz
Temperature Drift	< 10 %
Temperature Range	-40...80 °C
Switching Output Voltage Drop	< 1 V
Switching Output/Switching Current	150 mA
Residual Current Switching Output	< 100 µA
Short Circuit Protection	yes
Reverse Polarity and Overload Protection	yes
Interface	IO-Link V1.0
Protection Class	III
Mechanical Data	
Housing Material	CuZn, nickel-plated
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	3706,54 a

Part Number	Plug Version I12H020
IO-Link	●
Switchable to NC/NO	●
Configurable as PNP/NPN/Push-Pull	●
Programmable error output	●
Connection Diagram No.	704
Suitable Connection Technology No.	2
Suitable Mounting Technology No.	170 173
Error Indicator	yes
Programmable switching distance	8/10/12 mm

Connection Diagrams page 116

Complementary Products

IO-Link Master
Software

wenglorMEL

Inductive Sensor
with IO-Link

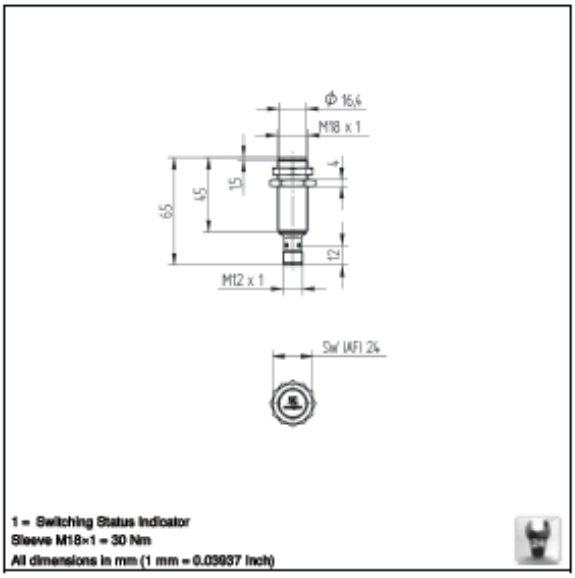
12 mm M18 × 1

Range
semi-flush

weproTec

Technical Data

Inductive Data	
Switching Distance	12 mm
Standard Target	36 × 36 mm
Correction Factors Stainless Steel V2A/CuZn/Al	0,97/0,47/0,43
Mounting	semi-flush
Mounting A/B/C/D in mm	18/46/36/5
Mounting B1 in mm	0...28
Switching Hysteresis	< 10 %
Electrical Data	
Supply Voltage	10...30 V DC
Supply Voltage with IO-Link	18...30 V DC
Current Consumption (Ub = 24 V)	< 12 mA
Switching Frequency	600 Hz
Temperature Drift	< 10 %
Temperature Range	-40...80 °C
Switching Output Voltage Drop	< 1 V
Switching Output/Switching Current	150 mA
Residual Current Switching Output	< 100 µA
Short Circuit Protection	yes
Reverse Polarity and Overload Protection	yes
Interface	IO-Link V1.0
Protection Class	III
Mechanical Data	
Housing Material	CuZn, nickel-plated
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	3706,54 a



1 = Switching Status Indicator
Sleeve M18×1 = 30 Nm
All dimensions in mm (1 mm = 0.03937 Inch)

	Plug Version
Part Number	II6H013
IO-Link	●
Switchable to NC/NO	●
Configurable as PNP/NPN/Push-Pull	●
Programmable error output	●
Connection Diagram No.	704
Suitable Connection Technology No.	2
Suitable Mounting Technology No.	150 152
Error Indicator	yes
Programmable switching distance	8/10/12 mm
Programmable switching frequency	yes

Connection Diagrams page 116

Complementary Products

IO-Link Master
Software

wenglorMEL

Inductive Sensor
with IO-Link

20 mm M18 × 1

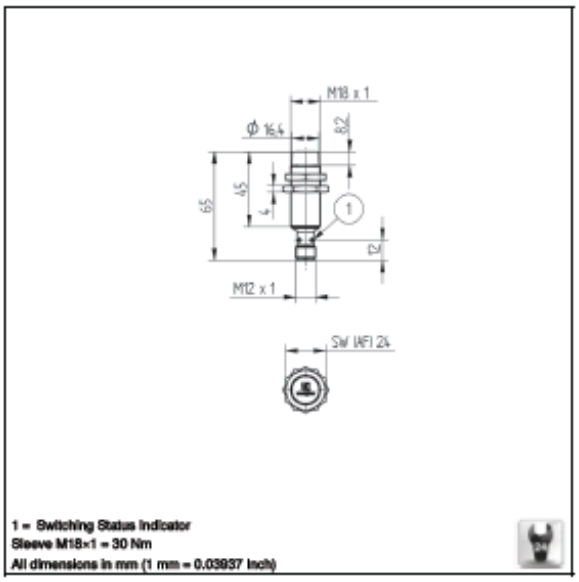
Range
non-flush

wenglor
the innovative family

weproTec

Technical Data

Inductive Data	
Switching Distance	20 mm
Standard Target	60 × 60 mm
Correction Factors Stainless Steel V2A/CuZn/Al	0,92/0,47/0,46
Mounting	non-flush
Mounting A/B/C/D in mm	24/60/60/20
Mounting B1 in mm	2...40
Switching Hysteresis	< 10 %
Electrical Data	
Supply Voltage	10...30 V DC
Supply Voltage with IO-Link	18...30 V DC
Current Consumption (Ub = 24 V)	< 11 mA
Switching Frequency	670 Hz
Temperature Drift	< 10 %
Temperature Range	-40...80 °C
Switching Output Voltage Drop	< 1 V
Switching Output/Switching Current	150 mA
Residual Current Switching Output	< 100 µA
Short Circuit Protection	yes
Reverse Polarity and Overload Protection	yes
Interface	IO-Link V1.0
Protection Class	III
Mechanical Data	
Housing Material	CuZn, nickel-plated
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	3706,54 a



1 = Switching Status Indicator
Sleeve M18×1 = 30 Nm
All dimensions in mm (1 mm = 0.03937 Inch)

Part Number	Plug Version II8H014
IO-Link	●
Switchable to NC/NO	●
Configurable as PNP/NPN/Push-Pull	●
Programmable error output	●
Connection Diagram No.	704
Suitable Connection Technology No.	2
Suitable Mounting Technology No.	150 153
Error Indicator	yes
Programmable switching distance	12/15/20 mm
Programmable switching frequency	yes

Connection Diagrams page 116

Complementary Products

IO-Link Master
Software

wenglorMEL

Inductive Sensor
with IO-Link

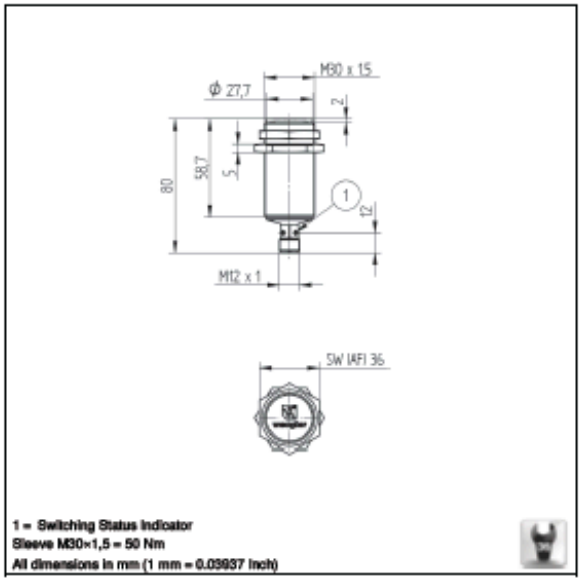
22 mm M30 × 1,5

Range
semi-flush

weproTec

Technical Data

Inductive Data	
Switching Distance	22 mm
Standard Target	66 × 66 mm
Correction Factors Stainless Steel V2A/CuZn/Al	0,85/0,35/0,34
Mounting	semi-flush
Mounting A/B/C/D in mm	35/49/66/7
Mounting B1 in mm	0...40
Switching Hysteresis	< 10 %
Electrical Data	
Supply Voltage	10...30 V DC
Supply Voltage with IO-Link	18...30 V DC
Current Consumption (Ub = 24 V)	< 15 mA
Switching Frequency	480 Hz
Temperature Drift	< 10 %
Temperature Range	-40...80 °C
Switching Output Voltage Drop	< 1 V
Switching Output/Switching Current	150 mA
Residual Current Switching Output	< 100 µA
Short Circuit Protection	yes
Reverse Polarity and Overload Protection	yes
Interface	IO-Link V1.0
Protection Class	III
Mechanical Data	
Housing Material	CuZn, nickel-plated
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	3706,54 a



1 = Switching Status Indicator
Sleeve M30×1,5 = 50 Nm
All dimensions in mm (1 mm = 0.03937 inch)

Part Number	Plug Version I30H013
IO-Link	●
Switchable to NC/NO	●
Configurable as PNP/NPN/Push-Pull	●
Programmable error output	●
Connection Diagram No.	704
Suitable Connection Technology No.	2
Suitable Mounting Technology No.	130 132
Error Indicator	yes
Programmable switching distance	15/20/22 mm
Programmable switching frequency	yes

Connection Diagrams page 116

Complementary Products

IO-Link Master
Software

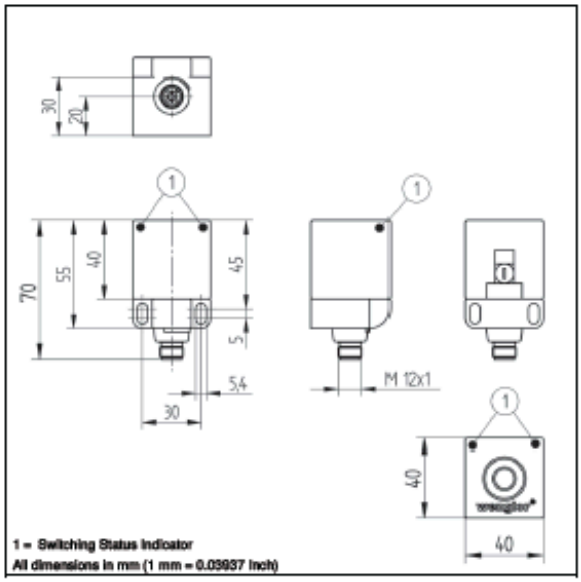
wenglorMEL

Inductive Sensor
with IO-Link

20 mm
40 × 40 × 55 mm (1Q)

Range
flush

wepro Tec



1 = Switching Status Indicator
All dimensions in mm (1 mm = 0.03937 Inch)

Technical Data

Inductive Data	
Switching Distance	20 mm
Standard Target	60 × 60 mm
Correction Factors Stainless Steel V2A/CuZn/Al	0,83/0,32/0,31
Mounting	flush
Mounting A/B/C/D in mm	0/40/60/0
Mounting B1 in mm	6...35
Switching Hysteresis	< 10 %
Electrical Data	
Supply Voltage	10...30 V DC
Supply Voltage with IO-Link	18...30 V DC
Current Consumption (Ub = 24 V)	< 15 mA
Switching Frequency	620 Hz
Temperature Drift	< 10 %
Temperature Range	-40...80 °C
Switching Output Voltage Drop	< 1 V
Switching Output/Switching Current	150 mA
Residual Current Switching Output	< 100 µA
Short Circuit Protection	yes
Reverse Polarity and Overload Protection	yes
Interface	IO-Link V1.0
Protection Class	III
Mechanical Data	
Housing Material	Plastic
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	3706,54 a

	Plug Version
Part Number	11QH005
IO-Link	●
Switchable to NC/NO	●
Configurable as PNP/NPN/Push-Pull	●
Programmable error output	●
Connection Diagram No.	704
Suitable Connection Technology No.	2
Error Indicator	yes
Programmable switching distance	12/15/20 mm
Programmable switching frequency	yes

Connection Diagrams page 116

Complementary Products

IO-Link Master
Software

wenglorMEL

Inductive Sensor
with IO-Link

40 mm
40 × 40 × 55 mm (1Q)

Range
non-flush

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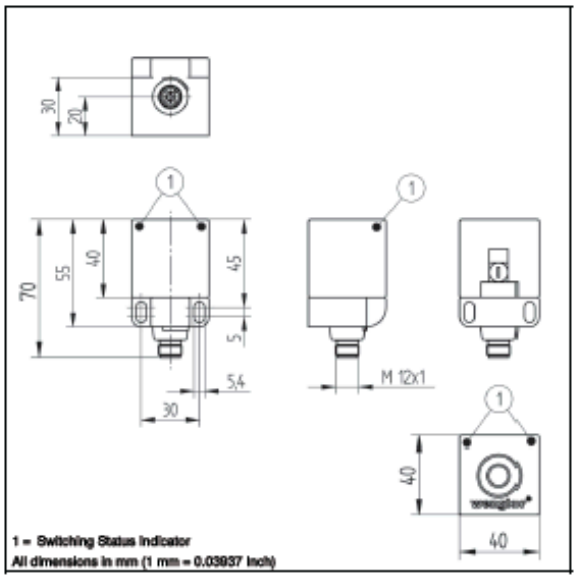

Technical Data

Inductive Data	
Switching Distance	40 mm
Standard Target	120 × 120 mm
Correction Factors Stainless Steel V2A/CuZn/Al	0,75/0,32/0,33
Mounting	non-flush
Mounting A/B/C/D in mm	90/110/120/40
Mounting B1 in mm	0...60
Switching Hysteresis	< 10 %
Electrical Data	
Supply Voltage	10...30 V DC
Supply Voltage with IO-Link	18...30 V DC
Current Consumption (Ub = 24 V)	< 15 mA
Switching Frequency	170 Hz
Temperature Drift	< 10 %
Temperature Range	-40...80 °C
Switching Output Voltage Drop	< 1 V
Switching Output/Switching Current	150 mA
Residual Current Switching Output	< 100 µA
Short Circuit Protection	yes
Reverse Polarity and Overload Protection	yes
Interface	IO-Link V1.0
Protection Class	III
Mechanical Data	
Housing Material	Plastic
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	3706,54 a

	Plug Version
Part Number	11QH006
IO-Link	●
Switchable to NC/NO	●
Configurable as PNP/NPN/Push-Pull	●
Error Output	●
Connection Diagram No.	704
Suitable Connection Technology No.	2
Error Indicator	yes
Programmable switching distance	30/35/40 mm
Programmable switching frequency	yes

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Complementary Products

IO-Link Master
Software