

Inductive Sensor with IO-Link

I1QH005

Part Number



- Easy sensor configuration using the IO-Link interface
- Innovative ASIC circuit technology
- Integrated error display and error output
- Minimal mounting clearance thanks to wenglor weproTec

The Inductive Sensors have not only been equipped with ASIC, but rather with an IO-Link interface as well for ideal integration into networks. As a result, a total of three switching distances and two switching frequencies can be selected, and PNP/NPN as well as NO/NC/antivalent options can be set as desired. This reduces the number of variants while simultaneously expanding the scope of functions.

weproTec

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	700 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 V1.1
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
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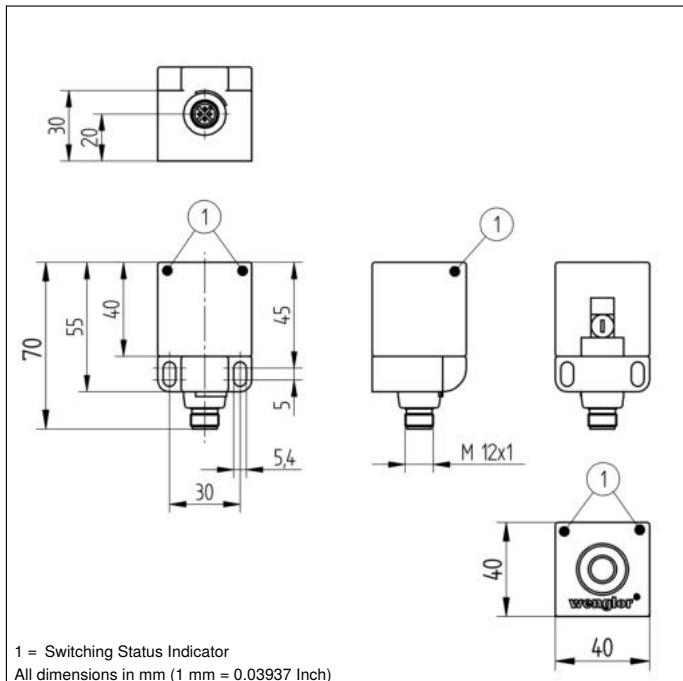
Function

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

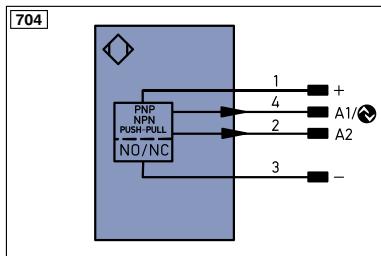
Complementary Products

IO-Link Master

Software



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



Legend		
+	Supply Voltage +	PT Platinum measuring resistor
-	Supply Voltage 0 V	nc not connected
~	Supply Voltage (AC Voltage)	U Test Input
A	Switching Output (NO)	Ü Test Input inverted
Ä	Switching Output (NC)	W Trigger Input
V	Contamination/Error Output (NO)	W- Ground for the Trigger Input
Ä	Contamination/Error Output (NC)	O Analog Output
E	Input (analog or digital)	O- Ground for the Analog Output
T	Teach Input	BZ Block Discharge
Z	Time Delay (activation)	Aw Valve Output
S	Shielding	a Valve Control Output +
RxD	Interface Receive Path	b Valve Control Output 0 V
TxD	Interface Send Path	SY Synchronization
RDY	Ready	SY- Ground for the Synchronization
GND	Ground	E+ Receiver-Line
CL	Clock	S+ Emitter-Line
E/A	Output/Input programmable	Grounding
	IO-Link	SdR Switching Distance Reduction
PoE	Power over Ethernet	Rx+/- Ethernet Receive Path
IN	Safety Input	Tx+/- Ethernet Send Path
OSD	Safety Output	Bus Interfaces-Bus A(+)/B(-)
Signal	Signal Output	La Emitted Light disengageable
BL-D	Ethernet Gigabit bidirect. data line (A-D)	Mag Magnet activation
EN0-5	Encoder 0-pulse 0-5 (TTL)	RES Input confirmation
		EDM Contactor Monitoring
		EN _{ARS42} Encoder A/A (TTL)
		EN _{RS42} Encoder B/B (TTL)
		ENA Encoder A
		ENB Encoder B
		AMIN Digital output MIN
		AMAX Digital output MAX
		AOK Digital output OK
		SY In Synchronization In
		SY OUT Synchronization OUT
		OLT Brightness output
		M Maintenance
		rsv reserved
		Wire Colors according to DIN IEC 757
		BK Black
		BN Brown
		RD Red
		OG Orange
		YE Yellow
		GN Green
		BU Blue
		VT Violet
		GY Grey
		WH White
		PK Pink
		GNYE Green/Yellow

Mounting

