Inductive Sensor
with IO-Link

I1QH005
Part Number

weproTec

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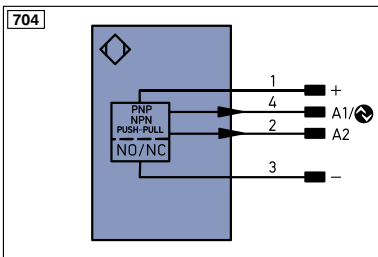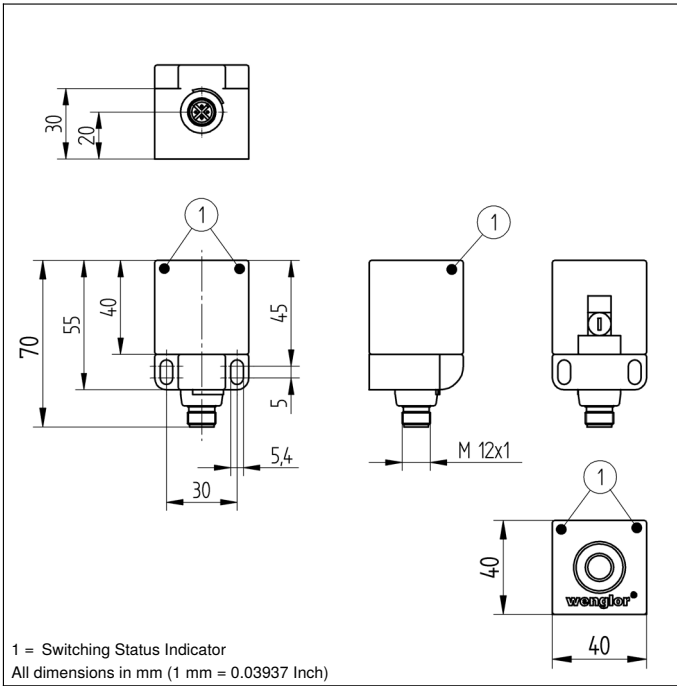- **Minimal mounting clearance thanks to wenglor weproTec**

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.

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
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 Technology No.	2

Complementary Products

IO-Link Master

Software

Inductive Sensors

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

704

1		+
4		A1/⬦
2		A2
3		−

PNP
NPN
PUSH-PULL
NO/NC

Legend

+	Supply Voltage +		PT	Platinum measuring resistor		ENₐ	Encoder A
−	Supply Voltage 0 V		nc	not connected		ENв	Encoder B
~	Supply Voltage (AC Voltage)		U	Test Input		Aₘᵢₙ	Digital output MIN
A	Switching Output (NO)		Ū	Test Input inverted		Aₘₐₓ	Digital output MAX
Ā	Switching Output (NC)		W	Trigger Input		Aₒₖ	Digital output OK
V	Contamination/Error Output (NO)		O	Analog Output		SY In	Synchronization In
V̄	Contamination/Error Output (NC)		O−	Ground for the Analog Output		SY OUT	Synchronization OUT
E	Input (analog or digital)		BZ	Block Discharge		0ʟт	Brightness output
T	Teach Input		Aₘᵥ	Valve Output		M	Maintenance
Z	Time Delay (activation)		a	Valve Control Output +			
S	Shielding		b	Valve Control Output 0 V			
RxD	Interface Receive Path		SY	Synchronization		**Wire Colors according to DIN IEC 757**	
TxD	Interface Send Path		E+	Receiver-Line		BK	Black
RDY	Ready		S+	Emitter-Line		BN	Brown
GND	Ground		⏚	Grounding		RD	Red
CL	Clock		SnR	Switching Distance Reduction		OG	Orange
E/A	Output/Input programmable		Rx+/−	Ethernet Receive Path		YE	Yellow
⬦	**IO**-Link		Tx+/−	Ethernet Send Path		GN	Green
PoE	Power over Ethernet		Bᴜꜱ	Interfaces-Bus A(+)/B(−)		BU	Blue
IN	Safety Input		La	Emitted Light disengageable		VT	Violet
OSSD	Safety Output		Mag	Magnet activation		GY	Grey
Signal	Signal Output		RES	Input confirmation		WH	White
Bl_D+/−	Ethernet Gigabit bidirect. data line (A-D)		EDM	Contactor Monitoring		PK	Pink
EN₀ᵣₛ₄₂₂	Encoder 0-pulse 0-0̄ (TTL)		ENₐᵣₛ₄₂₂	Encoder A/Ā (TTL)		GNYE	Green/Yellow
			ENвᵣₛ₄₂₂	Encoder B/B̄ (TTL)			

Mounting