

Inductive Sensor

with Selective Performance

ISQ250NK01A3

Part Number



- For ferrous magnets

The inductive sensors with selective performance can differ ferrous-magnetic metals (e.g. iron, steel) from non-ferrous-magnetic metals (aluminium, brass, copper and stainless steel).

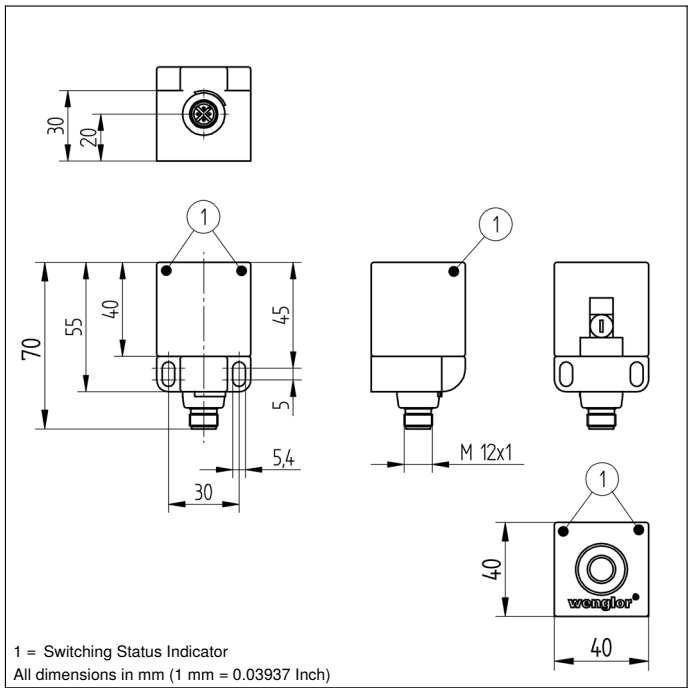
Technical Data

Inductive Data	
Switching Distance	25 mm
Correction Factors Fe360/Stainless Steel V2A/CuZn/Al	1/0,09/0/0
Mounting	Non-flush
Mounting A/B/C/D in mm	0/80/75/40
Switching Hysteresis	< 10 %
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (Ub = 24 V)	< 10 mA
Switching Frequency	300 Hz
Temperature Drift	< 10 %
Temperature Range	-25...80 °C
Switching Output Voltage Drop	< 1,5 V
Switching Output/Switching Current	200 mA
Residual Current Switching Output	< 100 µA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III
Mechanical Data	
Housing Material	Plastic, ABS
Sensing face	Plastic, PBT
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	1889,05 a
Stock Type	●
Scope of delivery	1 × initial start-up instructions 1 × sensor
PNP NC, PNP NO	●
Connection Diagram No.	101
Suitable Connection Equipment No.	2

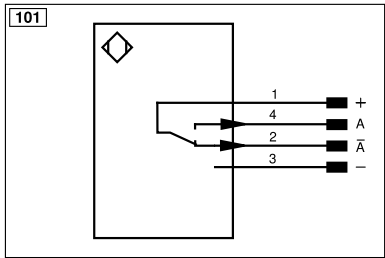
A minimum thickness of 0.05 mm is required for reliable non-detection of aluminum sheets.

Complementary Products

PNP-NPN Converter BG2V1P-N-2M



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



Legend					
+	Supply Voltage +	PT	Platinum measuring resistor	ENARs422	Encoder A/Ä (TTL)
-	Supply Voltage 0 V	nc	Not connected	ENBRs422	Encoder B/ß (TTL)
~	Supply Voltage (AC Voltage)	U	Test Input	ENa	Encoder A
A	Switching Output (NO)	Ü	Test Input inverted	ENb	Encoder B
Ä	Switching Output (NC)	W	Trigger Input	AMIN	Digital output MIN
V	Contamination/Error Output (NO)	W-	Ground for the Trigger Input	AMAX	Digital output MAX
Û	Contamination/Error Output (NC)	O	Analog Output	AOK	Digital output OK
E	Input (analog or digital)	O-	Ground for the Analog Output	SY In	Synchronization In
T	Teach Input	BZ	Block Discharge	SY OUT	Synchronization OUT
R	Reset input	Amv	Valve Output	OLT	Brightness output
Z	Time Delay (activation)	a	Valve Control Output +	M	Maintenance
S	Shielding	b	Valve Control Output 0 V	rsv	Reserved
RxD	Interface Receive Path	SY	Synchronization	Wire Colors according to DIN IEC 60757	
TxD	Interface Send Path	SY-	Ground for the Synchronization		
RDY	Ready	E+	Receiver-Line	BK	Black
GND	Ground	S+	Emitter-Line	BN	Brown
CL	Clock	±	Grounding	RD	Red
E/A	Output/Input programmable	SnR	Switching Distance Reduction	OG	Orange
IO-Link	IO-Link	Rx+/-	Ethernet Receive Path	YE	Yellow
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path	GN	Green
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)	BU	Blue
QSSD	Safety Output	La	Emitted Light disengageable	VT	Violet
Signal	Signal Output	Mag	Magnet activation	GY	Grey
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation	WH	White
ENo RS422	Encoder 0-pulse 0/0 (TTL)	EDM	Contactor Monitoring	PK	Pink
				GNYE	Green/Yellow

Mounting

