

# Inductive Sensor with Selective Performance

## ISQ150BK01A3

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	15 mm
Correction Factors Fe360/Stainless Steel V2A/CuZn/Al	1/0/0/0
Mounting	flush
Mounting A/B/C/D in mm	0/40/45/0
Switching Hysteresis	< 10 %

#### Electrical Data

Supply Voltage	10...30 V DC
Current Consumption (U <sub>b</sub> = 24 V)	< 10 mA
Switching Frequency	500 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 and Overload Protection	yes
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)	1840,77 a
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PNP NO/NC antivalent

Connection Diagram No.

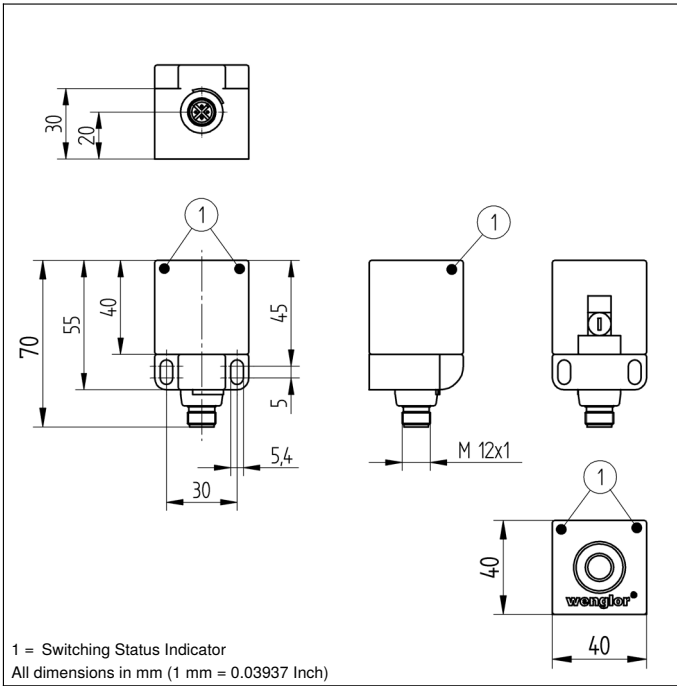
101

Suitable Connection Equipment No.

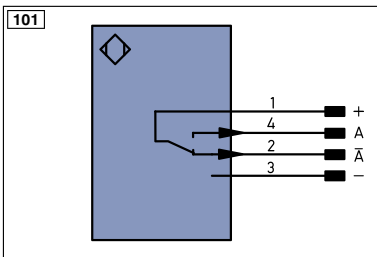
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### Complementary Products

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
-	Supply Voltage 0 V	nc	not connected
~	Supply Voltage (AC Voltage)	U	Test Input
A	Switching Output (NO)	Ū	Test Input inverted
Ā	Switching Output (NC)	W	Trigger Input
V	Contamination/Error Output (NO)	W-	Ground for the Trigger Input
Ṽ	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)	AMV	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
	<b>IO-Link</b>	S <sub>n</sub> R	Switching Distance Reduction
PoE	Power over Ethernet	Rx+/-	Ethernet Receive Path
IN	Safety Input	Tx+/-	Ethernet Send Path
OSSD	Safety Output	Bus	Interfaces-Bus A(+)/B(-)
Signal	Signal Output	L <sub>a</sub>	Emitted Light disengageable
Bl..D+/-	Ethernet Gigabit bidirect. data line (A-D)	Mag	Magnet activation
EN0..5422	Encoder 0-pulse 0-0 (TTL)	RES	Input confirmation
		EDM	Contactur Monitoring
		EN <sub>A</sub> ES422	Encoder A/Ā (TTL)
		EN <sub>B</sub> ES422	Encoder B/B̄ (TTL)
		EN <sub>A</sub>	Encoder A
		EN <sub>B</sub>	Encoder B
		A <sub>MIN</sub>	Digital output MIN
		A <sub>MAX</sub>	Digital output MAX
		A <sub>OK</sub>	Digital output OK
		SY <sub>in</sub>	Synchronization In
		SY <sub>OUT</sub>	Synchronization OUT
		OL <sub>T</sub>	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
		GNVE	Green/Yellow

## Mounting

