

Inductive Sensor for Extreme Temperature Ranges

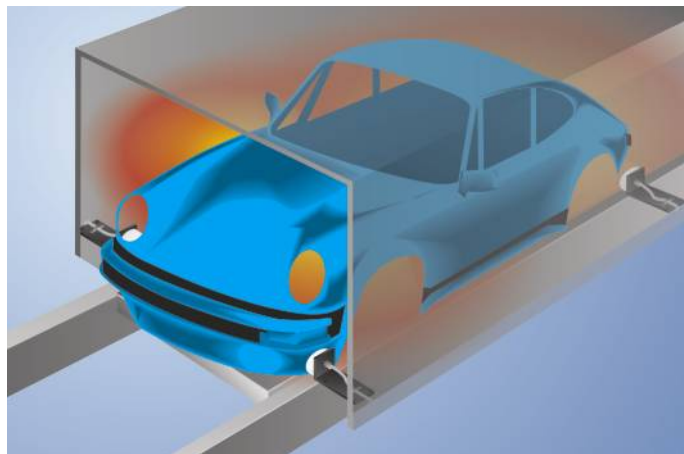
INTT307

Part Number



- Easy to replace sensors with data storage feature
- Evaluation unit integrated into M12 sensor connector
- Highly efficient with an average service life of 5 years
- Three configurable switching distances: 30/35/40 mm

The high temperature inductive sensor can, with cable lengths of 1 to 30 meters, be positioned as needed in hot areas of systems and machines. Installation is also easy due to the ultra-compact design, as the evaluation unit is integrated into the M12 sensor connector. The sensor thus takes up far less space and is highly compatible thanks to its standardised design. The we-proTec technology makes it possible to install the sensors directly next to or across from one another. In addition, sensor parameters like switching distance and output functions can be configured individually via IO-Link.

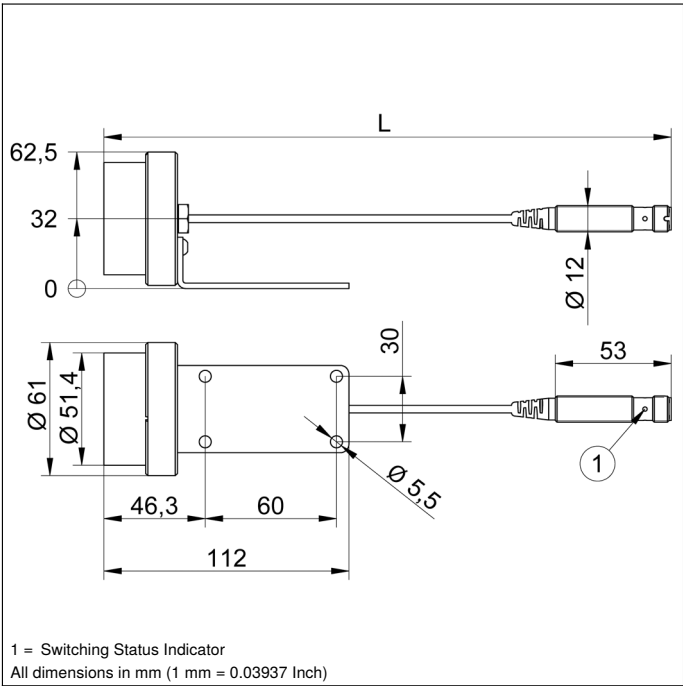


Technical Data

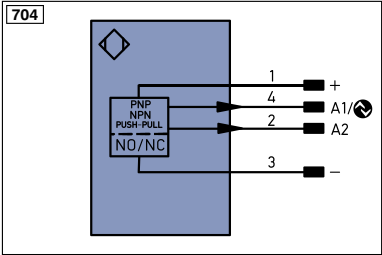
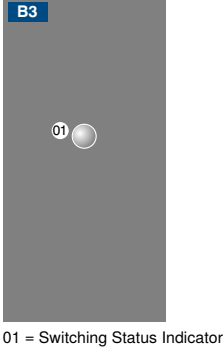
Inductive Data	
Switching Distance	40 mm
Standard Target	120 × 120 mm
Correction Factors Stainless Steel V2A/CuZn/Al	1,10/0,65/0,58
Mounting	non-flush
Mounting A/B/C/D in mm	60/120/80/20
Mounting B1 in mm	0...80
Switching Hysteresis	< 10 %
Electrical Data	
Supply Voltage	10...30 V DC
Supply Voltage with IO-Link	18...30 V DC
Current Consumption (U _b = 24 V)	< 15 mA
Switching Frequency	50 Hz
Temperature Drift	< 10 %
Sensor head temperature range	-10...250 °C
Temperature range, plug	0...70 °C
Number of Switching Outputs	2
Switching Output Voltage Drop	< 1 V
Switching Output/Switching Current	100 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
Service Life (T = +200 °C)	100000 h
Service Life (T = +250 °C)	60000 h
Mechanical Data	
Sensor head material	Stainless steel V2A; PEEK; PTFE
Plug material	CuZn, nickel-plated
Degree of Protection	IP65
Connection	M12 × 1; 4-pin
Cable Length (L)	10 m
PWIS-free	yes
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	3706,54 a
Function	
Error Indicator	yes
Programmable switching distance	30/35/40 mm
IO-Link	●
Switchable to NC/NO	●
Configurable as PNP/NPN/Push-Pull	●
Error Output	●
Connection Diagram No.	704
Control Panel No.	B3
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	170 172

Complementary Products

IO-Link Master



Ctrl. Panel



Legend

+	Supply Voltage +	PT	Platinum measuring resistor	ENAR5422	Encoder A/Ä (TTL)
-	Supply Voltage 0 V	nc	not connected	ENB5422	Encoder B/B̄ (TTL)
~	Supply Voltage (AC Voltage)	U	Test Input	ENa	Encoder A
A	Switching Output (NO)	Ū	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
Ū	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
Z	Time Delay (activation)	AWV	Valve Output	OLt	Brightness output
S	Shielding	a	Valve Control Output +	M	Maintenance
RxD	Interface Receive Path	b	Valve Control Output 0 V	rsv	reserved
TxD	Interface Send Path	SY	Synchronization	Wire Colors according to IEC 60757	
RDY	Ready	SY-	Ground for the Synchronization	BK	Black
GND	Ground	E+	Receiver-Line	BN	Brown
CL	Clock	S+	Emitter-Line	RD	Red
E/A	Output/Input programmable	±	Grounding	OG	Orange
IO-Link	IO-Link	SnR	Switching Distance Reduction	YE	Yellow
PoE	Power over Ethernet	Rx+/-	Ethernet Receive Path	GN	Green
IN	Safety Input	Tx+/-	Ethernet Send Path	BU	Blue
OSSD	Safety Output	Bus	Interfaces-Bus A(+)/B(-)	VT	Violet
Signal	Signal Output	La	Emitted Light disengageable	GY	Grey
BI-D+/-	Ethernet Gigabit bidirect. data line (A-D)	Mag	Magnet activation	WH	White
EN0r5422	Encoder 0-pulse 0-0̄ (TTL)	RES	Input confirmation	PK	Pink
		EDM	Contact Monitoring	GNYE	Green/Yellow

Mounting

