Inductive Sensor
for Extreme Temperature Ranges

INTT007
Part Number

- **Increased system availability thanks to maintenance output**
- **Long service life of up to 100 000 hours**
- **Quickly interchangeable sensor head**

The sensors consist of a sensor head and an analysis module, and are laid out for use in very hot work environments. Together with unparalleled service life in hot surroundings, large switching distances assure maximum system availability. Easily interchangeable sensor heads with numerous standard cable lengths are additionally available as separate replacement parts.The maintenance function prevents unscheduled system downtime. Thanks to unique, patented technology (DE202011001009), the sensor indicates that it should be replaced during the next scheduled maintenance before its service life expires. Furthermore, the sensor fulfills the DESINA diagnostics function a well.
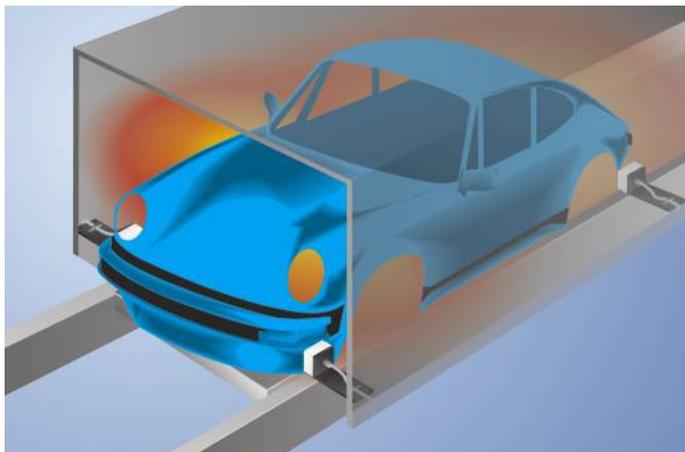
Technical Data

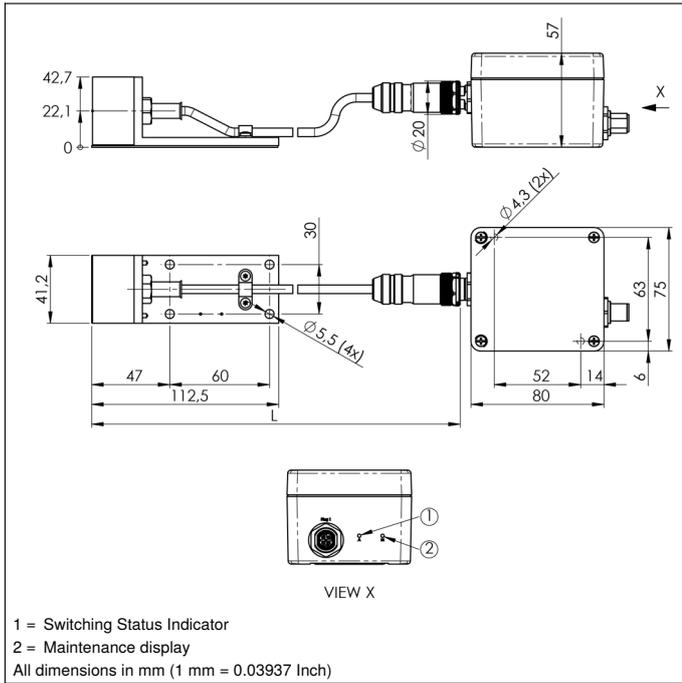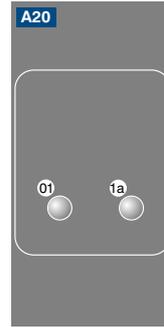| Inductive Data	
Switching Distance	25 mm
Correction Factors Stainless Steel V2A/CuZn/Al	0,81/0,56/0,52
Mounting	non-flush
Mounting A/B/C/D in mm	50/90/50/25
Switching Hysteresis	< 10 %
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (Ub = 24 V)	< 40 mA
Switching Frequency	60 Hz
Temperature Drift	< 10 %
Sensor head temperature range	-10...250 °C
Temperature Range, Plug on Sensor Head	0...50 °C
Analysis module temperature range	0...50 °C
Number of Switching Outputs	2
Switching Output Voltage Drop	< 2,5 V
Switching Output/Switching Current	100 mA
Residual Current Switching Output	< 10 mA
Short Circuit Protection	yes
Protection Class	III
Service Life (T = +200 °C)	100000 h
Service Life (T = +250 °C)	60000 h
Mechanical Data	
Sensor head material	PTFE (FDA)
Analysis module material	Aluminum
Degree of protection, sensor head	IP60
Degree of protection, analysis module	IP67
Connection	M12 × 1; 4-pin
Cable Length (L)	10 m
PWIS-free	yes
PNP NO/NC antivalent	●
Maintenance output	●
Connection Diagram No.	**136**
Control Panel No.	**A20**
Suitable Connection Equipment No.	**2**

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

VIEW X

Ctrl. Panel

A20

01 = Switching Status Indicator
1a = Maintenance display
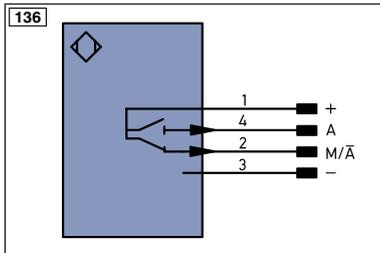
Legend

+	Supply Voltage +	PT	Platinum measuring resistor	EN$_{ARS422}$	Encoder A/$\overline{A}$ (TTL)
−	Supply Voltage 0 V	nc	not connected	EN$_{BRS422}$	Encoder B/$\overline{B}$ (TTL)
~	Supply Voltage (AC Voltage)	U	Test Input	EN$_A$	Encoder A
A	Switching Output (NO)	$\overline{U}$	Test Input inverted	EN$_B$	Encoder B
$\overline{A}$	Switching Output (NC)	W	Trigger Input	A$_{MIN}$	Digital output MIN
V	Contamination/Error Output (NO)	W−	Ground for the Trigger Input	A$_{MAX}$	Digital output MAX
$\overline{V}$	Contamination/Error Output (NC)	O	Analog Output	A$_{OK}$	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)	A$_{MW}$	Valve Output	0$_{LT}$	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 DIN IEC 757
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	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
EN$_{0RS422}$	Encoder 0-pulse 0-$\overline{0}$ (TTL)	RES	Input confirmation	PK	Pink
		EDM	Contactor Monitoring	GNYE	Green/Yellow

136

1	+
4	A
2	M/$\overline{A}$
3	−

Mounting

8×Sn