

Inductive Sensor for Extreme Temperature Ranges

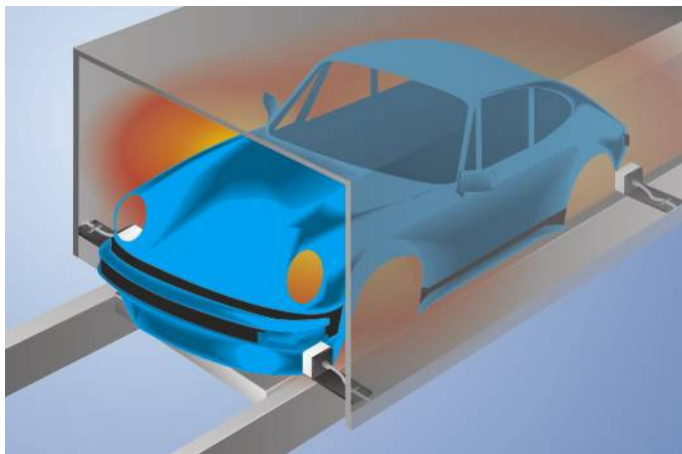
INTT003

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 as 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 %

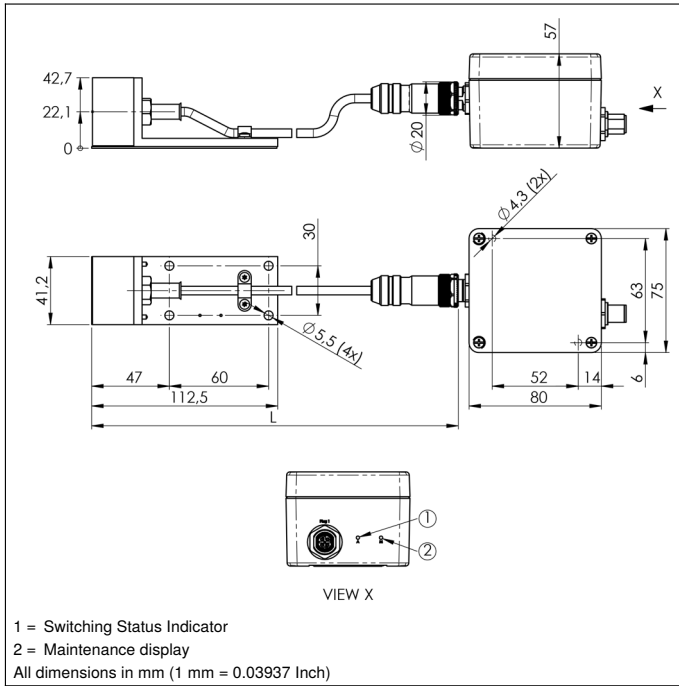
Electrical Data

Supply Voltage	10...30 V DC
Current Consumption (U _b = 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

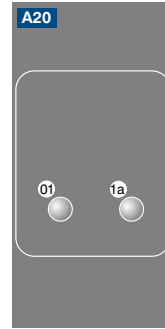
Mechanical Data

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)	5 m
PWIS-free	yes

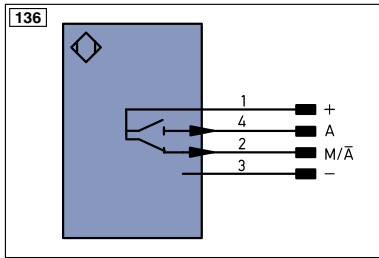
PNP NO/NC antivalent	●
Maintenance output	●
Connection Diagram No.	136
Control Panel No.	A20
Suitable Connection Equipment No.	2



Ctrl. Panel



01 = Switching Status Indicator
 1a = Maintenance display



Legend

+	Supply Voltage +	PT	Platinum measuring resistor	EN _A ES42Z	Encoder A/Ā (TTL)
-	Supply Voltage 0 V	nc	not connected	EN _B ES42Z	Encoder B/B̄ (TTL)
~	Supply Voltage (AC Voltage)	U	Test Input	EN _A	Encoder A
A	Switching Output (NO)	Ū	Test Input inverted	EN _B	Encoder B
Ā	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
Ṽ	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 _{MV}	Valve Output	OL _T	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	S _n R	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	L _a	Emitted Light disengageable	GY	Grey
Bl_D+/-	Ethernet Gigabit bidirect. data line (A-D)	Mag	Magnet activation	WH	White
EN ₀ ES42Z	Encoder 0-pulse 0-0̄ (TTL)	RES	Input confirmation	PK	Pink
		EDM	Contacting Monitoring	GNVE	Green/Yellow

Mounting

