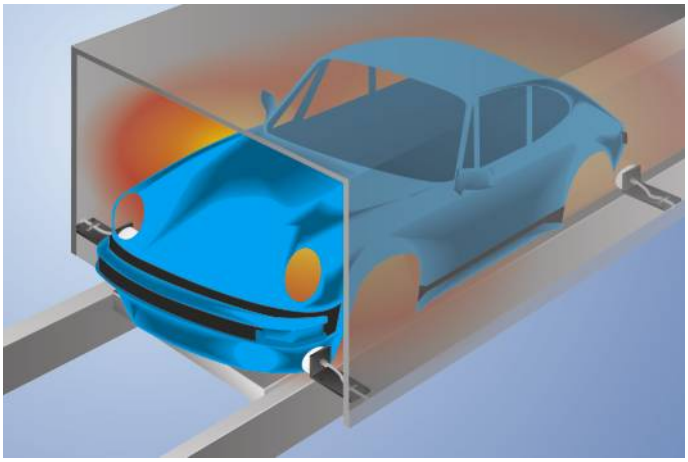
Inductive Sensor
for Extreme Temperature Ranges

INTT111
Part Number

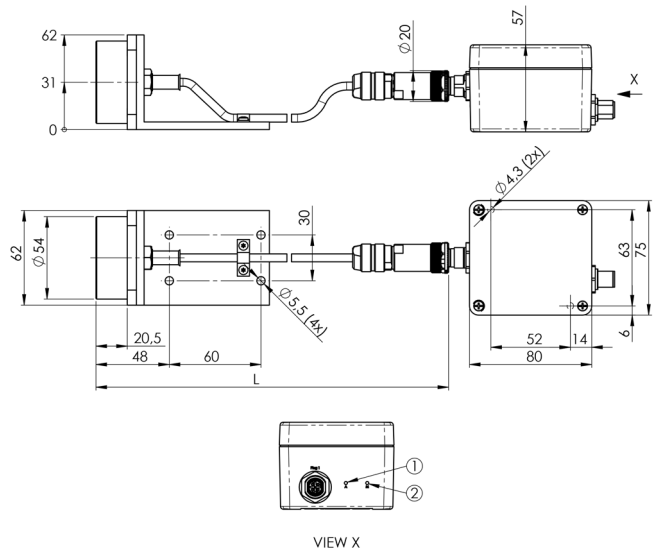
- **Increased switching distance of up to 40 mm**
- **Increased system availability thanks to maintenance output**
- **Long service life of up to 100 000 hours**
- **Quickly interchangeable sensor head**

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.



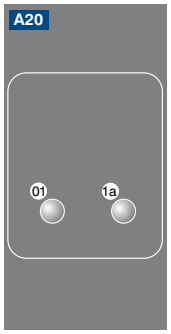
Technical Data

Inductive Data	
Switching Distance	40 mm
Correction Factors Stainless Steel V2A/CuZn/Al	0,81/0,56/0,52
Mounting	non-flush
Mounting A/B/C/D in mm	70/120/80/25
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)	20 m
PWIS-free	yes
PNP NO/NC antivalent	●
Maintenance output	●
Connection Diagram No.	136
Control Panel No.	A20
Suitable Connection Equipment No.	2

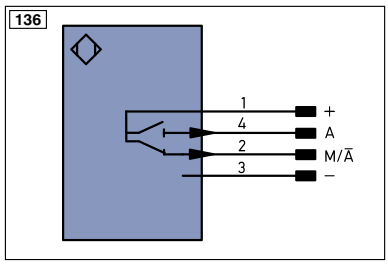


1 = Switching Status Indicator
2 = Maintenance display
All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel



01 = Switching Status Indicator
1a = Maintenance display



Legend

+	Supply Voltage +
–	Supply Voltage 0 V
~	Supply Voltage (AC Voltage)
A	Switching Output (NO)
Ā	Switching Output (NC)
V	Contamination/Error Output (NO)
V̄	Contamination/Error Output (NC)
E	Input (analog or digital)
T	Teach Input
Z	Time Delay (activation)
S	Shielding
RxD	Interface Receive Path
TxD	Interface Send Path
RDY	Ready
GND	Ground
CL	Clock
E/A	Output/Input programmable
	IO-Link
PoE	Power over Ethernet
IN	Safety Input
OSSD	Safety Output
Signal	Signal Output
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)
EN0 RS422	Encoder 0-pulse 0-0̄ (TTL)
PT	Platinum measuring resistor
nc	not connected
U	Test Input
Ū	Test Input inverted
W	Trigger Input
W–	Ground for the Trigger Input
O	Analog Output
O–	Ground for the Analog Output
BZ	Block Discharge
AW	Valve Output
a	Valve Control Output +
b	Valve Control Output 0 V
SY	Synchronization
SY–	Ground for the Synchronization
E+	Receiver-Line
S+	Emitter-Line
⏚	Grounding
SnR	Switching Distance Reduction
Rx+/–	Ethernet Receive Path
Tx+/–	Ethernet Send Path
Bus	Interfaces-Bus A(+)/B(–)
La	Emitted Light disengageable
Mag	Magnet activation
RES	Input confirmation
EDM	Contactor Monitoring
ENA RS422	Encoder A/Ā (TTL)
ENB RS422	Encoder B/B̄ (TTL)
ENA	Encoder A
ENB	Encoder B
AMIN	Digital output MIN
AMAX	Digital output MAX
AOK	Digital output OK
SY In	Synchronization In
SY OUT	Synchronization OUT
OLT	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
GNYE	Green/Yellow

Mounting