Inductive Sensor
with Increased Switching Distance

I18H020
Part Number

weproTec



- **Increased switching distance**
- **Innovative ASIC circuit technology**
- **Integrated error display**
- **Minimal mounting clearance thanks to wenglor weproTec**

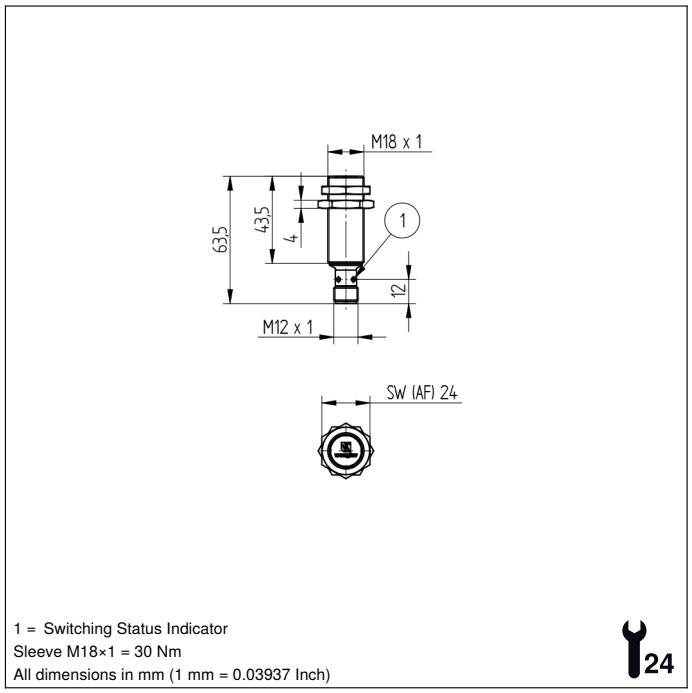
Technical Data

Inductive Data	
Switching Distance	8 mm
Correction Factors Stainless Steel V2A/CuZn/Al	0,91/0,45/0,43
Mounting	flush
Mounting A/B/C/D in mm	0/24/24/0
Mounting B1 in mm	2...14
Switching Hysteresis	< 10 %
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (Ub = 24 V)	< 6 mA
Switching Frequency	590 Hz
Temperature Drift	< 10 %
Temperature Range	-40...80 °C
Switching Output Voltage Drop	< 1 V
Switching Output/Switching Current	150 mA
Residual Current Switching Output	< 100 µA
Short Circuit Protection	yes
Reverse Polarity and Overload Protection	yes
Protection Class	III
Mechanical Data	
Housing Material	CuZn, nickel-plated
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	3706,54 a
Function	
Error Indicator	yes
PNP NO/NC antivalent	●
Connection Diagram No.	101
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	150 151

Inductive Sensors with increased switching distances are distinguished by rugged design, easy installation and reliable measured values. The large range makes additional types of sensor superfluous because they can also be used to implement special applications. In addition to error-free operation of several sensors in a very small space, the new generation also provides the possibility of detecting system errors before it's too late thanks to ASIC und wenglor weproTec.

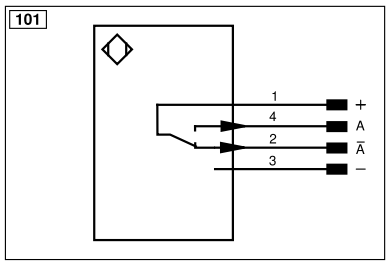
Complementary Products

PNP-NPN Converter BG2V1P-N-2M



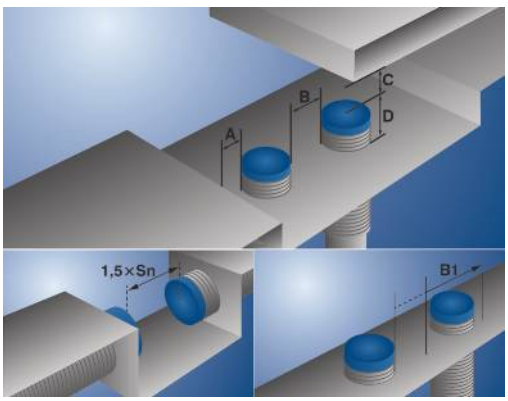
1 = Switching Status Indicator
Sleeve M18×1 = 30 Nm
All dimensions in mm (1 mm = 0.03937 Inch)

24



Legend					
+	Supply Voltage +	nc	Not connected	ENBRS422	Encoder B/B̄ (TTL)
–	Supply Voltage 0 V	U	Test Input	ENA	Encoder A
~	Supply Voltage (AC Voltage)	Ū	Test Input inverted	ENB	Encoder B
A	Switching Output (NO)	W	Trigger Input	AMIN	Digital output MIN
Ā	Switching Output (NC)	W–	Ground for the Trigger Input	AMAX	Digital output MAX
V	Contamination/Error Output (NO)	O	Analog Output	AOK	Digital output OK
V̄	Contamination/Error Output (NC)	O–	Ground for the Analog Output	SY In	Synchronization In
E	Input (analog or digital)	BZ	Block Discharge	SY OUT	Synchronization OUT
T	Teach Input	AMV	Valve Output	OLT	Brightness output
Z	Time Delay (activation)	a	Valve Control Output +	M	Maintenance
S	Shielding	b	Valve Control Output 0 V	rsv	Reserved
RxD	Interface Receive Path	SY	Synchronization	Wire Colors according to DIN IEC 60757	
TxD	Interface Send Path	SY–	Ground for the Synchronization	BK	Black
RDY	Ready	E+	Receiver-Line	BN	Brown
GND	Ground	S+	Emitter-Line	RD	Red
CL	Clock	⏚	Grounding	OG	Orange
E/A	Output/Input programmable	SnR	Switching Distance Reduction	YE	Yellow
	IO-Link	Rx+/–	Ethernet Receive Path	GN	Green
PoE	ower over Ethernet	Tx+/–	Ethernet Send Path	BU	Blue
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(–)	VT	Violet
OSSD	Safety Output	La	Emitted Light disengageable	GY	Grey
Signal	Signal Output	Mag	Magnet activation	WH	White
BI_D+/–	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation	PK	Pink
EN0 RS422	Encoder 0-pulse 0/0̄ (TTL)	EDM	Contactor Monitoring	GNYE	Green/Yellow
PT	Platinum measuring resistor	ENARS422	Encoder A/Ā (TTL)		

Mounting



Specifications are subject to change without notice