Temperature Sensor

FFAT012

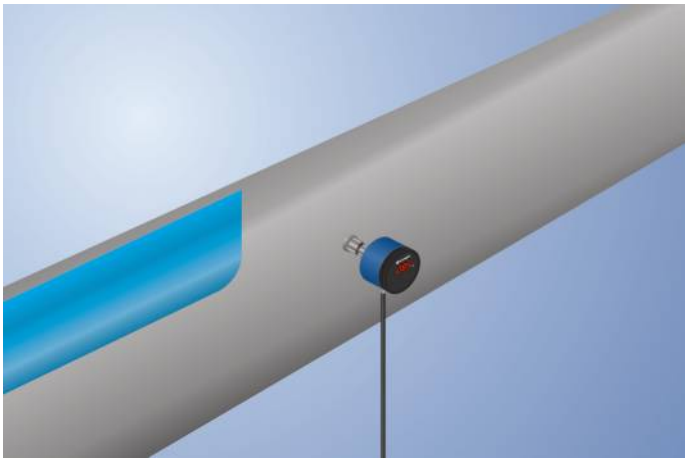
Part Number

UniTemp



- **Highly visible output indicator**
- **Simple operation via the display**
- **Temperature range: 0...200°C available**

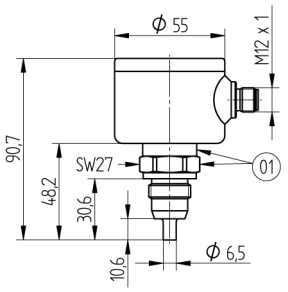
UniTemp temperature sensors measure the temperature of liquid or gaseous media and facilitate the temperature monitoring of processes.



Technical Data

Sensor-specific data	
Temperature Measurement Range	0...140 °C
Setting Range	2...139 °C
Medium	Liquids, gases
Measuring error	± 1 °C
Resolution	1 °C
Switching Hysteresis	2 °C
Response Time	2...4 s
Environmental conditions	
Temperature of medium	0...140 °C
Ambient temperature	-20...80 °C
Pressure Resistance	60 bar
EMC	DIN EN 61326-2-3
Shock resistance per DIN IEC 68-2-27	30 g / 11 ms
Vibration resistance per DIN IEC 60068-2-6	20 g (10...2000 Hz)
Electrical Data	
Supply Voltage	16...32 V DC
Current Consumption (Ub = 24 V)	60 mA
Number of Switching Outputs	1
Analog Output	4...20 mA
Signal source	Temperature
Current Output Load Resistance	< 500 Ohm
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Protection Class	III
Mechanical Data	
Setting Method	Menu
Housing Material	PBT; PC; FKM
Material Control Panel	Polyester
Material in contact with media	1.4435; 1.4404; FKM
Degree of Protection	IP67 *
Connection	M12 × 1; 5-pin
Process Connection	G 1/2" CIP-capable
Process Connection Length (PCL)	48 mm
Probe Length (PL)	10 mm
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	766,91 a
Analog Output	●
PNP NO	●
Connection Diagram No.	1002
Control Panel No.	A01
Suitable Connection Equipment No.	35
Suitable Mounting Technology No.	903 905 906

* Certified by wenglor

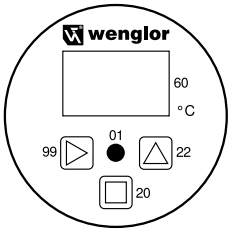


All dimensions in mm (1 mm = 0.03937 Inch)

27

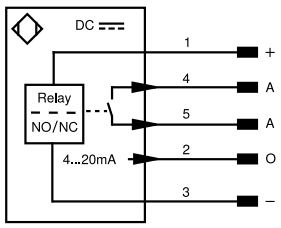
Ctrl. Panel

A01



01 = Switching Status Indicator
20 = Enter key
22 = Up key
60 = display
99 = Right button

1002



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)		

Specifications are subject to change without notice V0-31.03.2023