

# Temperature Sensor

## FFAT003

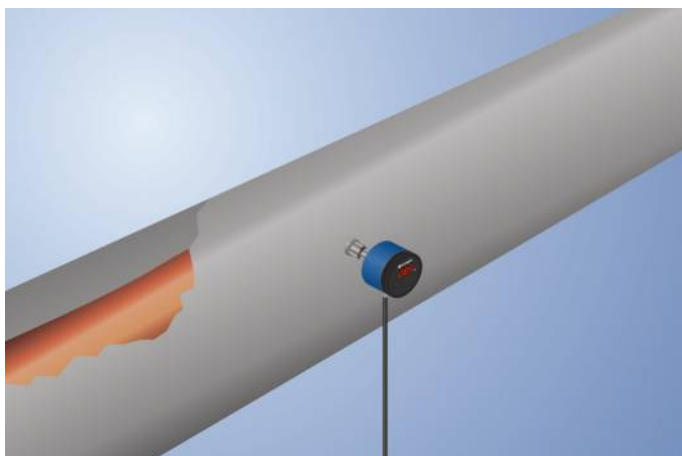
Part Number

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
Adjustable 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
Mechanical Strength	60 bar
EMC	DIN EN 61326-2-3
Shock resistance per DIN IEC 68-2-27	50 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 (U <sub>b</sub> = 24 V)	60 mA
Switching Outputs	1
Switching Output/Switching Current	< 250 mA
Switching Output Voltage Drop	< 2 V
Analog Output	4...20 mA Temp
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; 4-pin
Process Connection	G 1/4"
Process Connection Length	42 mm
Probe Length	10 mm

Safety-relevant Data	
MTTFd (EN ISO 13849-1)	1194,55 a

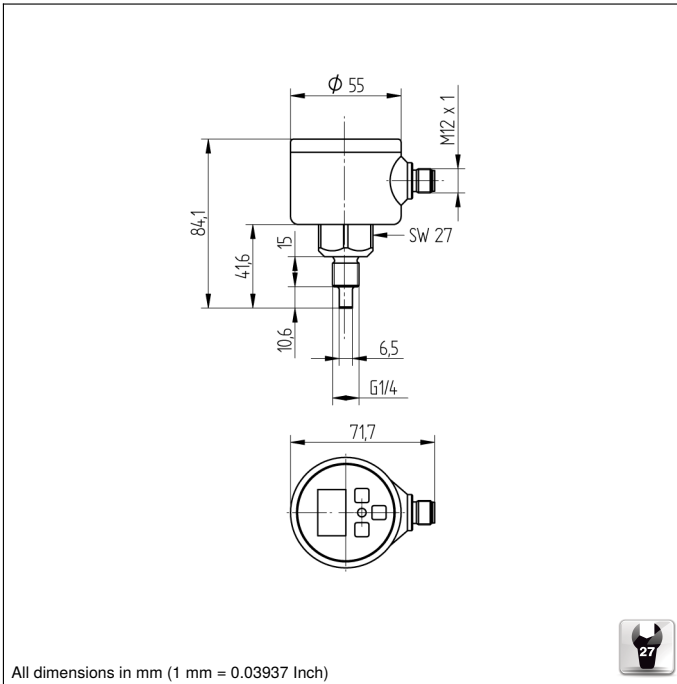
Analog Output	●
PNP NO/NC switchable	●

Connection Diagram No.	533
Control Panel No.	A01
Suitable Connection Technology No.	21

\* Tested by wenglor

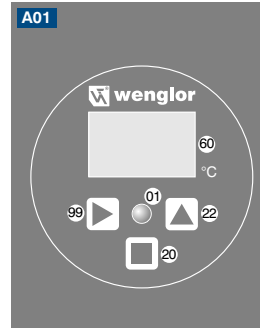
### Complementary Products

Seal G1/4" ZH5G001



All dimensions in mm (1 mm = 0.03937 Inch)

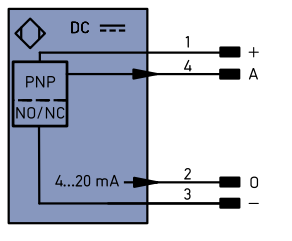
### Ctrl. Panel



- 01 = Switching Status Indicator
- 20 = Enter Button
- 22 = UP Button
- 60 = Display
- 99 = Right button



533



### Legend

+	Supply Voltage +	PT	Platinum measuring resistor	ENa	Encoder A
-	Supply Voltage 0 V	nc	not connected	ENb	Encoder B
~	Supply Voltage (AC Voltage)	U	Test Input	AMIN	Digital output MIN
A	Switching Output (NO)	U	Test Input inverted	AMAX	Digital output MAX
Ā	Switching Output (NC)	W	Trigger Input	AOK	Digital output OK
V	Contamination/Error Output (NO)	O	Analog Output	SY In	Synchronization In
ṽ	Contamination/Error Output (NC)	O-	Ground for the Analog Output	SY OUT	Synchronization OUT
E	Input (analog or digital)	BZ	Block Discharge	Out	Brightness output
T	Teach Input	AW	Valve Output	M	Maintenance
Z	Time Delay (activation)	a	Valve Control Output +		
S	Shielding	b	Valve Control Output 0 V		
RxD	Interface Receive Path	SY	Synchronization		
TxD	Interface Send Path	E+	Receiver-Line		
RDY	Ready	S+	Emitter-Line		
GND	Ground	≡	Grounding		
CL	Clock	SnR	Switching Distance Reduction		
E/A	Output/Input programmable	Rx+/-	Ethernet Receive Path		
	IO-Link	Tx+/-	Ethernet Send Path		
PoE	Power over Ethernet	Bus	Interfaces-Bus A(+)/B(-)		
IN	Safety Input	La	Emitted Light disengageable		
OSSD	Safety Output	Mag	Magnet activation		
Signal	Signal Output	RES	Input confirmation		
Bl..D +/-	Ethernet Gigabit bidirect. data line (A-D)	EDM	Contactur Monitoring		
EN0..RS422	Encoder 0-pulse 0-0 (TTL)	ENaRS422	Encoder A/Ā (TTL)		
		ENbRS422	Encoder B/B̄ (TTL)		

### 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

