

# Temperature Sensor

## FFAT034

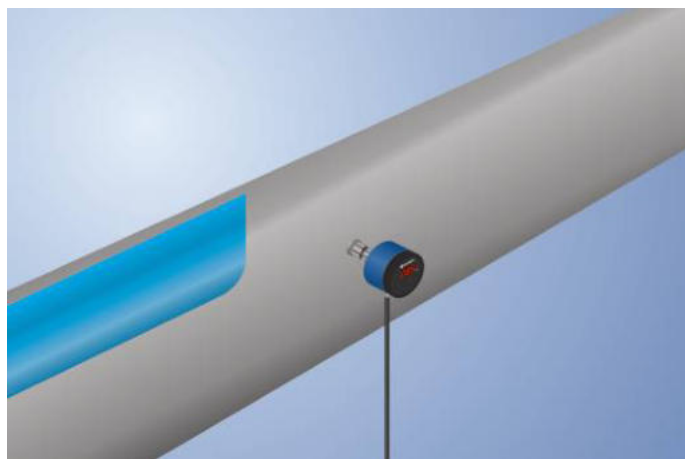
Part Number

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       | 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 (U <sub>b</sub> = 24 V) | 60 mA         |
| Switching Outputs                           | 1             |
| Analog Output                               | 0...10 V Temp |
| Current Load Voltage Output                 | < 20 mA       |
| 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              | Sealing cone M18 × 1,5 |
| Process Connection Length (PCL) | 124 mm                 |
| Probe Length (PL)               | 103,5 mm               |

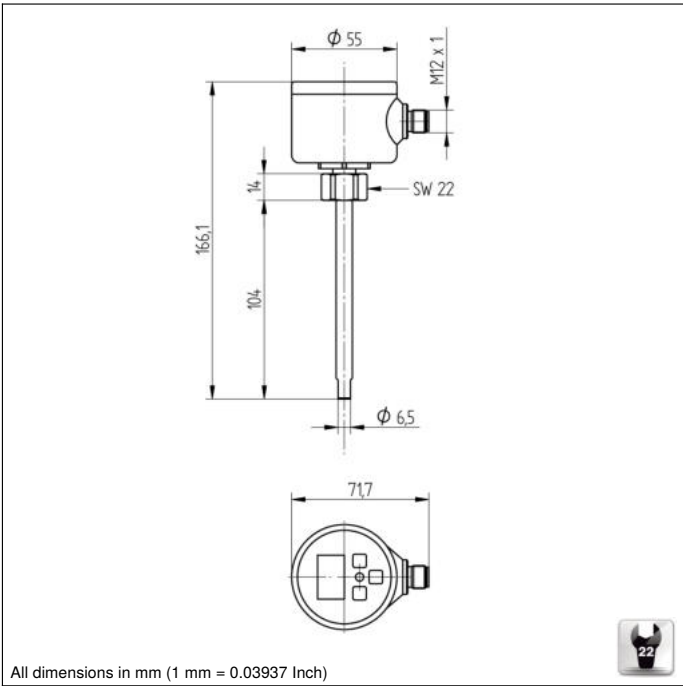
#### Safety-relevant Data

|                        |          |
|------------------------|----------|
| MTTFd (EN ISO 13849-1) | 766,91 a |
|------------------------|----------|

|                        |   |
|------------------------|---|
| Analog Output          | ● |
| Relay NO/NC switchable | ● |

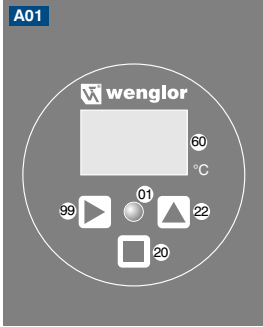
|                                    |             |
|------------------------------------|-------------|
| Connection Diagram No.             | 1003        |
| Control Panel No.                  | A01         |
| Suitable Connection Technology No. | 35          |
| Suitable Mounting Technology No.   | 900 901 902 |

\* Tested by wenglor

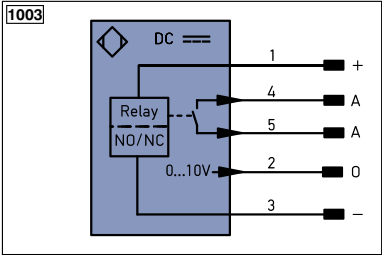


All dimensions in mm (1 mm = 0.03937 Inch)

## Ctrl. Panel



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



### Legend

|           |                                            |          |                              |
|-----------|--------------------------------------------|----------|------------------------------|
| +         | Supply Voltage +                           | PT       | Platinum measuring resistor  |
| -         | Supply Voltage 0 V                         | nc       | not connected                |
| ~         | Supply Voltage (AC Voltage)                | U        | Test Input                   |
| A         | Switching Output (NO)                      | U        | Test Input inverted          |
| Ā         | Switching Output (NC)                      | W        | Trigger Input                |
| V         | Contamination/Error Output (NO)            | O        | Analog Output                |
| Ṽ         | Contamination/Error Output (NC)            | O-       | Ground for the Analog Output |
| E         | Input (analog or digital)                  | BZ       | Block Discharge              |
| T         | Teach Input                                | AWV      | Valve Output                 |
| 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           |
| BI-D+/-   | Ethernet Gigabit bidirect. data line (A-D) | EDM      | Contacting Monitoring        |
| EN0 RS422 | Encoder 0-pulse 0-0 (TTL)                  | ENAR5422 | Encoder A/A (TTL)            |
|           |                                            | ENBR5422 | Encoder B/B (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         |

### 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 |

