

## FAST RESPONSE IMMERSION SENSOR TENA NTC 1.8

TENA NTC 1.8 sensor is designed for hot domestic water temperature control applications.

Temperature is detected by a NTC 1.8 sensor element with a nominal resistance of 1.8 kΩ at 25 °C.

Housing is made of heat resistant plastics. Sensor stem is made of stainless steel. The cover and the terminal blocks are tilted 45° to provide easy installation.

### Sensor resistance at different temperatures:

| °C  | Ω    | °C  | Ω      |
|-----|------|-----|--------|
| 120 | 110  | 25  | 1800   |
| 100 | 178  | 20  | 2177   |
| 90  | 230  | 15  | 2649   |
| 80  | 303  | 10  | 3241   |
| 75  | 349  | 5   | 3989   |
| 70  | 403  | 0   | 4940   |
| 65  | 468  | -5  | 6159   |
| 60  | 545  | -10 | 7730   |
| 55  | 638  | -15 | 9771   |
| 50  | 750  | -20 | 12 443 |
| 45  | 885  | -25 | 15 969 |
| 40  | 1049 | -30 | 20 659 |
| 35  | 1250 | -40 | 35 480 |
| 30  | 1496 | -50 | 63 229 |



### Technical data:

|                 |                                |
|-----------------|--------------------------------|
| Sensor          | NTC 1.8, 1.8 kΩ at 25 °C       |
| Mounting        | R 1/2" thread                  |
| Stem            | 4 mm x 80 mm HST steel         |
| Housing         | plastic (< 120 °C)             |
| Prot. class     | IP54, cable entry or stem down |
| Cable entry     | M16                            |
| Range           | -50...+120 °C                  |
| Accuracy        | ±0.3 °C (at 25 °C)             |
| Time constant   | approx. 2.5 s                  |
| Pressure rating | PN16                           |

### Ordering guide:

| Model            | Product number | Description   |
|------------------|----------------|---|
| TENA NTC 1.8     | 117E050        | fast immersion sensor<br>1.8 kΩ at 25 °C                    |
| TENA NTC 1.8-50  | 117E051        | fast immersion sensor 1.8 kΩ<br>at 25 °C, stem length 50 mm |
| TENA NTC 1.8-210 | 117E052        | fast immersion sensor, 1 kΩ<br>at 0 °C, stem length 210 mm  |

Products fulfil the requirements of directive 2004/108/EC and are in accordance with the standards EN61000-6-3: 2001 (Emission) and EN61000-6-2: 2001 (Immunity).