

# AKM 44612/44622/44617/44618/44650



## Direct mount thermometers

# Control and alarm with switches and optional SCADA output

- Designed and tested to ensure quality and performance
- Corrosion resistant materials ensure long life
- Can be used to simulate winding temperature

## Product Summary

**Description** For indication of oil (liquid) or winding temperature in power transformers. Fitted with a resettable maximum temperature pointer and up to 2 integrated switches for alarm and control functions. Available with a Pt100 electronic output for SCADA system integration or remote monitoring.

**Application** For temperature indication with integrated control and alarm functions. Designed for use where the point of measurement (the well or pocket) is on the top of the apparatus and can be easily viewed.



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Defining Reliability

## AKM 44612/44622/44617/44618/44650 direct mount thermometers

### Control and alarm with switches and optional SCADA output

- Available with up to 2 contacts (switches) to control cooling and trigger alarms
- Contacts can be set to trigger anywhere within the range of 10-120°C
- Optional SCADA (Pt100) output allows for remote monitoring and data acquisition

### Designed and tested to ensure quality and performance

- Maximum temperature pointer shows highest value reached since last reset
- Provides accuracy within  $\pm 2^{\circ}\text{C}$  between 50°C and 120°C
- Measurement accuracy within  $\pm 2^{\circ}\text{C}$  between 50°C and 120°C
- Switching accuracy within  $\pm 3^{\circ}\text{C}$  between 50°C and 120°C

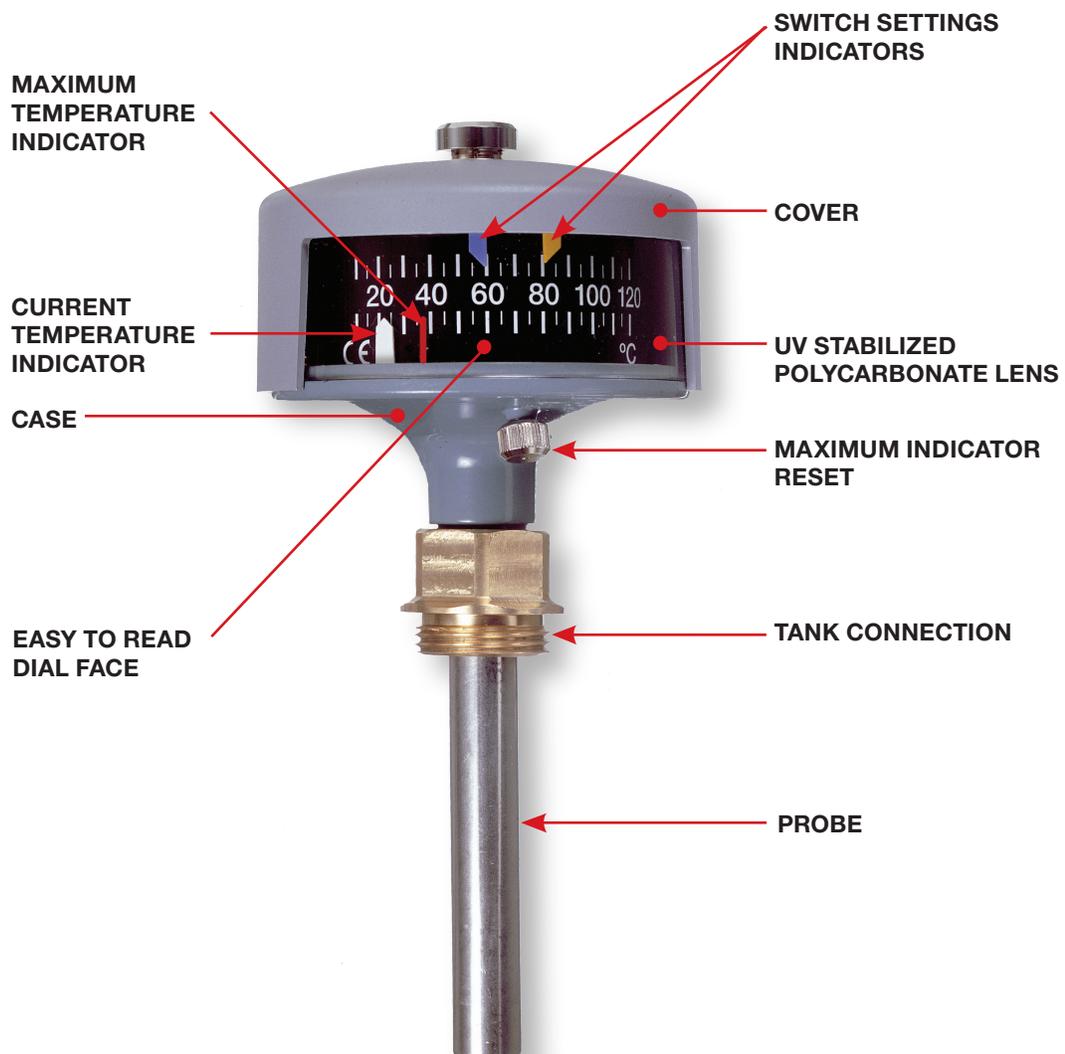
### Corrosion resistant materials ensure long life

- Rugged cast-aluminum case with thermosetting powder coat finish
- Weatherproof, glass reinforced thermoset plastic cover
- UV stabilized polycarbonate lens

### Can be used to simulate winding temperature

- Heating element is built into the thermometer probe allowing for quick and easy installation

### 44612, 44617, 44618 and 44622 features

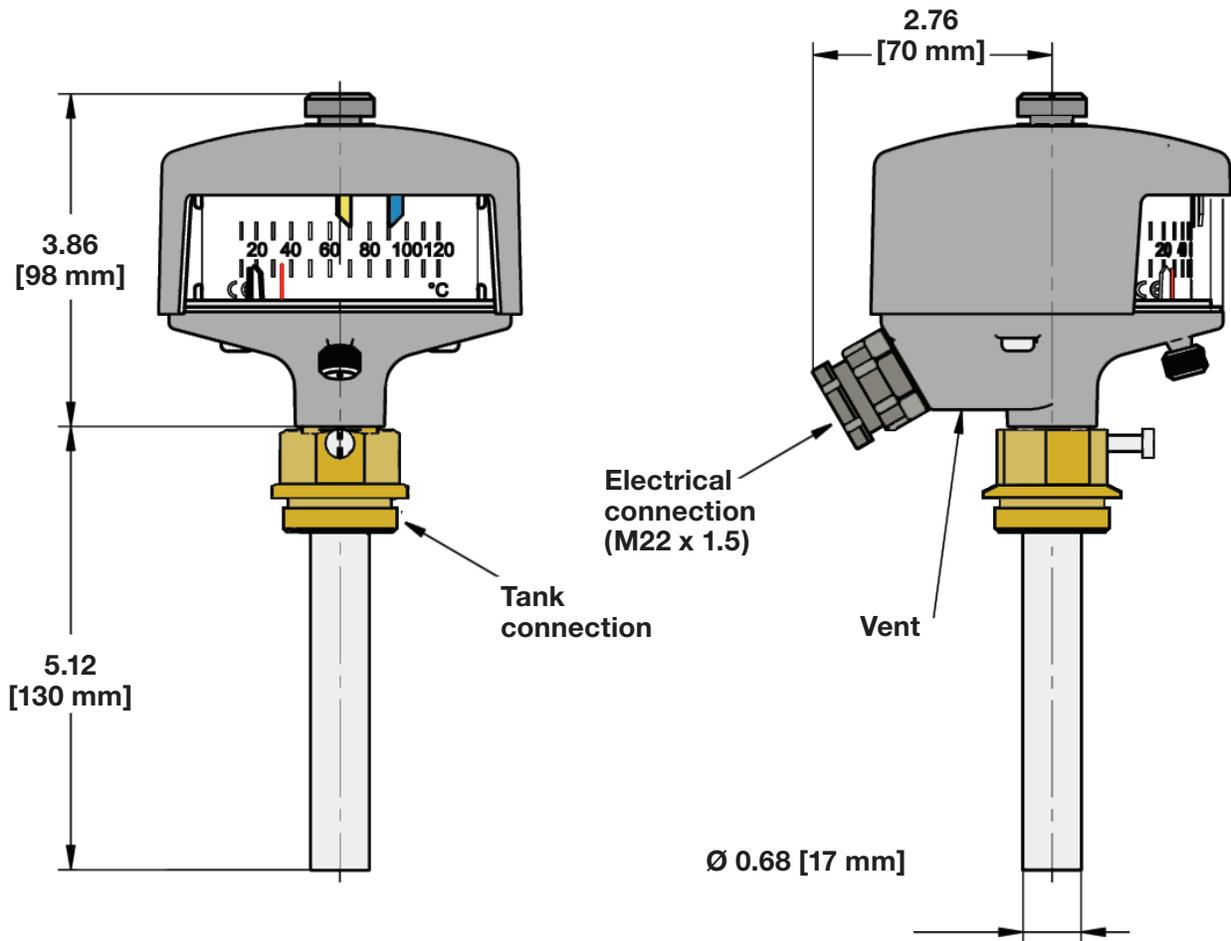




## TECHNICAL SPECIFICATIONS

|                      |                                     |  |
|----------------------|-------------------------------------|--|
| <b>Mechanical</b>    | Weight                              | Approximately 1.10 lbs (0.5 kg)                            |
|                      | Mounting                            | Top mount  |
|                      | Standard dial ranges                | 10-120°C, 0-130°C, -20-120°C, 60-150°C                     |
|                      | Tank connection                     | G 3/4", G 1.00", 50 mm x 50 mm flange mount, G 3/4" female |
|                      | Indicating accuracy                 | ±2°C between 50°C and 120°C                                |
| <b>Dimensions</b>    | Dial height (from transformer wall) | 4.61" (117 mm)   |
|                      | Probe immersion depth               | 3.74" (95 mm)  |
|                      | Probe diameter                      | 0.67" (17 mm)  |
| <b>Materials</b>     | Case                                | Die-cast aluminum with thermosetting powder coat           |
|                      | Cover                               | Glass reinforced thermoset plastic                         |
|                      | Lens                                | UV stabilized polycarbonate                                |
| <b>Environmental</b> | Ambient operating temperature       | -40 to +158 °F (-40 to 70°C.)                              |
|                      | Weather-proof rating                | IEC 529 protective class IP55                              |
| <b>Electrical</b>    | Number of switches                  | up to 2 (standard)   |
|                      | Switch rating (AC)                  | 5A @ 250 VAC   |
|                      | Switch rating (DC)                  | 0.3A @ 110 VDC (L/R ≤ 10 ms)                               |
|                      | Switching accuracy                  | ±3°C between 50°C and 120°C                                |
|                      | Switch differential                 | Approximately 5°C  |
|                      | Dielectric isolation                | 2000 VAC for one minute                                    |
|                      | Cable gland                         | M22 x 1.5 (various per model)                              |

| Model name | Standard dial range | Probe diameter (mm) | Probe length (mm) | Tank connection     | Corresponding well (pocket) |
|------------|---------------------|---------------------|-------------------|---------------------|-----------------------------|
| 44600      | 10-120              | 17                  | 110               | Ø22mm O ring        | 48459-1 or 48459-2          |
| 44612      | 10-120              | 17                  | 110               | G1"                 | -                           |
| 44617      | 10-120              | 17                  | 110               | square 50 mm flange | -                           |
| 44618      | 10-120              | 17                  | 110               | M22 x 1.5           | -                           |
| 44622      | 10-120              | 17                  | 110               | G 3/4"              | 44601                       |
| 44630      | 10-120              | 12.5                | 160               | G 1/2"              | -                           |
| 44650      | 10-120              | 17                  | 109               | G - size per model  | -                           |



**Don't see what you need?**

QUALITROL regularly creates models with special customer requirements. Contact your local sales representative or QUALITROL Application Engineer to review your special requirements.

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