



MESSKO® BeTech

# THERMOMETER WITH BELLOW TYPE TECHNOLOGY.

MESSKO INSTRUMENTS



# TWO STRONG TECHNOLOGIES SAILING UNDER THE SAME FLAG.

Over 100 years ago, two resourceful engineers realized their visions – they started to develop two market-leading technologies to measure the oil and winding temperature for monitoring and protecting power transformers. Finally, after all those years, the two very different technologies have joined forces under one roof. The MESSKO® BeTech thermometer range relies on bellow type technology – the MESSKO® COMPACT and TRASY2 ranges rely on the Bourdon principle. MESSKO customers enjoy the advantage of being able to obtain both time-tested technologies from a single source.

In addition to the established MESSKO® thermometer ranges COMPACT and TRASY2, which work on the Bourdon principle, the MESSKO® BeTech range is based on the original bellow type technology. Since the market launch in the 60's of the last century, steady production to the highest quality standards and the uniform design of the bellow thermometer range provided the basis for a success story lasting more than 40 years.

The customer-friendly MESSKO service package includes repair, upgrading and recalibration of all previously installed BeTech models. MESSKO customers also have chance to exchange devices that have a mercury-filled switch with a micro-switch or to obtain an equivalent device. In addition, MESSKO offers special versions, such as polar or 2-gradient models.

Both technologies are characterized by maintenance-free, rugged and trouble-free measuring principles that display impressive levels of reliability and longevity.

MESSKO customers can choose between Bourdon or bellow type technology. They can be sure that nothing has changed when it comes to innovation, quality and service because for the first time both technologies come from a single source and sail under one flag.

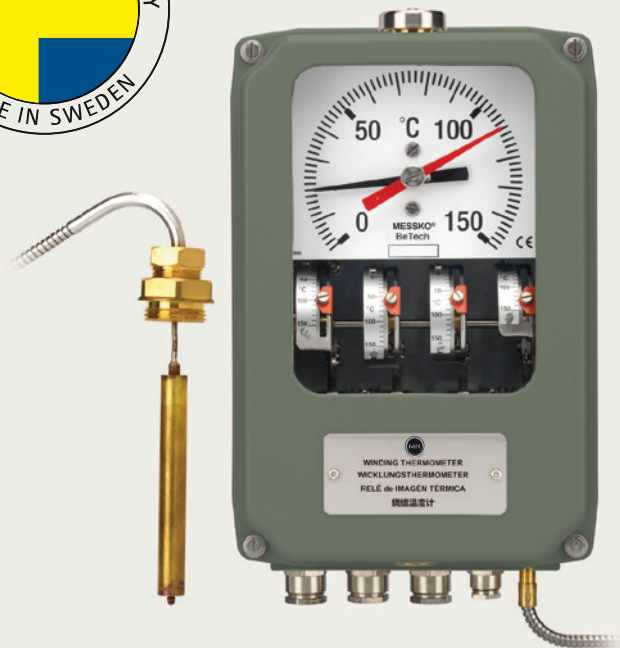


*In the MESSKO® BeTech bellow type technology, the measuring system of the oil and winding thermometers consists of four basic components. In this maintenance-free technology, the first bellows ensures actuation of the micro-switches, the second bellows ensures optimum compensation of the ambient temperature.*



*The MESSKO® COMPACT and TRASY2 ranges rely on the Bourdon principle – the measuring system of the oil and winding thermometer with Bourdon spring consists of three functional units. In the Bourdon technology, the robust and thermally-treated Bourdon spring and direct transfer of the rise in pressure to the pointer ensure an extremely precise and permanently stable temperature display.*

# MESSKO® BeTech – THE BENEFITS AT A GLANCE.



- | Decades of technical expertise combined with original know-how
- | Professional and competent contacts the world over
- | High-quality materials
- | Leak testing of all measuring systems prior to delivery
- | 5 years warranty
  
- | Display of oil and winding temperature
- | Adjustable gradients; also with 5 A CT models
- | Independent settings of the contacts
- | Selectable hysteresis
- | IP 55 (optionally: IP 65)
- | Magnetic blow out (MBO)
- | Integrated kick protection as standard
- | Laminated safety glass as standard
- | Offshore version (optional)

MESSKO® BeTech	Technical Data
<b>Materials</b>	
Housing	Die-cast aluminium, powder-coated
Window	Laminated safety glass with UV filter (optionally: UV-stabilized polycarbonate)
Sensor screw coupling	Square 4-hole flange; G3/4"; G1"; 7/8"-14UNF; other screw couplings on request
Cable gland	Up to 3 x M20 and 1 x M16
<b>Parameters</b>	
Measuring range	0 ... 150 °C or -20 ... 130 °C or 0 ... 160 °C or -40 ... 160 °C; other ranges on request
Display accuracy	± 3 °C (30-150 °C) (optional: ± 2 °C or 1.5 °C)
Installation	Indoors and outdoors, tropic-proof
Ambient temperature	-40 ... +70 °C (optional: polar version to -60 °C)
Insulation voltage	2.5 kV 50 Hz 1 min
Degree of Protection	IP 55 according to EN60529 (optionally: IP 65)
Analog output	4-20 mA; 4-20 mA and 5 VDC; 0-5 V; Pt100
Weight	Approx. 4 kg
<b>Micro-switches</b>	
Number	2, 3, 4 or 5
Contact load	Standard SPDT 250 VAC / 15 A; (optionally: MBO, DPDT or SPDT Gold)
Switching hysteresis	12 ± 2 °C; others on request