Instruments for:

METEOROLOGY
HYROLOGY
WATER QUALITY
AIR QUALITY
INDOOR CLIMATE
VENTILATION

KRITECH

Temperature sensor for air / water / ground Ё Mod. 90.2221

Mineral-insulated resistance thermometers to EN 60 751

■ **for temperatures from -50 (-200) to +600°C**
■ **flexible sheath with shock-protected sensor**
■ **as single or twin resistance thermometer in 2-wire, 3-wire or 4-wire circuit**
■ **fast response time**
■ **application-specific fitting length**

Thanks to their special properties, mineral-insulated resistance thermometers are used in chemical plants, power stations, pipelines, in engine construction, on test beds and in all applications where flexibility and problem-free replacement are required. The low-resistance internal copper conductors are embedded in compressed heat-resistant magnesium oxide inside a flexible thin-walled sheath in stainless steel. The temperature sensor in 2-wire, 3-wire or 4-wire circuit is connected to the internal wires and fitted in the stainless steel protection tube.
Protection tube and sheath are welded together.
Diameters as small as 1.9mm are available.
The excellent heat transfer between the protection tube and the temperature sensor enables short response times (t0.5 from 0.7sec) and high accuracy. The shock-proof construction ensures a long life. The flexible probe tube permits temperature measurement at points that are difficult to reach. The smallest bending radius is 5 times the external diameter.
The measuring insert is normally fitted with a Pt100 temperature sensor to EN 60 751, Class B in 2-wire circuit. Versions with Pt500 or Pt1000 are also available. 3-wire or 4-wire circuit connections can be provided.

Technical data:

Measuring range :	-190° tot +350°C (depending on used connection cable)
Accuracy :	± 0,2°C inside the meteorological range
Dimensions :	Ø 1,9 mm to Ø 6 mm depending on application, L : 70 mm
Connections :	cable ends available as: bare wires, with ferrules, receptacles or multipole connector
Connection cable :	silicone, ambient temperature -50...+180°C PTFE, ambient temperature -190...+260°C metal braiding, ambient temperature -50 to +350°C
Protection tube :	stainless steel 1.4541; Ø 1,9mm, Ø 3mm & Ø 6mm
Measuring element :	temperature sensor Pt 100, DIN EN 60 751, kl. B, 2 wires
Reaction time :	in water with 0,4m/s / in air with 3m/s Ø 1,9mm: water t0,5 = 0,7s, t0,9 = 2,1s / air t0,5 = 7,2s, t0,9 = 20,5s Ø 3,0mm: water t0,5 = 1,3s, t0,9 = 4,0s / air t0,5 = 13,5s, t0,9 = 41,0s Ø 6,0mm: water t0,5 = 5,0s, t0,9 =11,5s / air t0,5 = 37,5s, t0,9 = 117,5s
Cable length :	on choice (10m = standard length) - shielded