



Stem Thermometers for Diesel Engines

Nitrogen Filled



measuring
•
monitoring
•
analysing



- Environmentally-friendly measuring system with non-toxic nitrogen
- Fast response time
- Measuring ranges: 0 ... +800 °C
- Probe material: stainless steel



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Model:
TND

Description

The stem thermometer for diesel engines is a gas pressure thermometer specially designed for the demanding service on diesel engines.

The measuring system of the gas pressure thermometer comprises probe, capillary tube and Bourdon spring in a casing. These parts form a unit. The complete measuring system is filled with pressurized nitrogen. A change in temperature causes a change in inner pressure in the immersion shaft. The resulting deflection of the Bourdon tube is transferred to the pointer through a pointer element.

The devices are filled with silicone oil and are thus also suitable for service at measuring points exposed to strong vibrations.

The fill dampens the measuring system when exposed to mechanical vibrations and thus enables steady indication; it also provides good lubrication for moving parts.

Areas of Application

- Combustion gas of diesel motors
- Cooling water
- Turbochargers
- Compressors

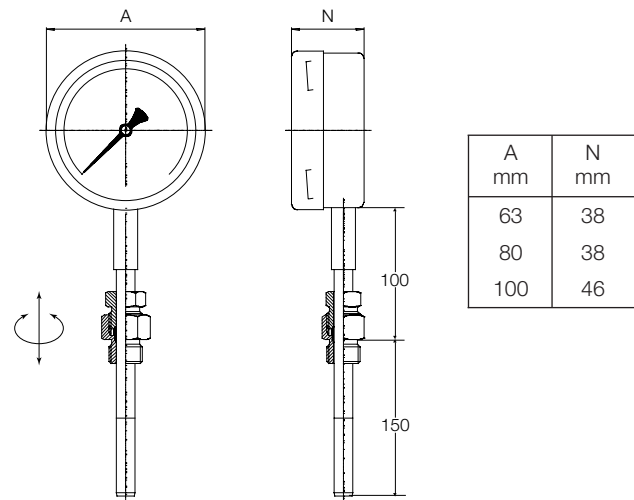
Option

For service under extreme conditions the devices can be delivered with a damping spring fitted between casing and probe.

Technical Details

- Casing: black steel, filled with silicone oil or stainless steel 1.4301, filled with silicone oil bayonet lock
- Window: instrument glass 4 mm
- Protection: IP 67
- Dial: aluminium, white with black inscription
- Pointer: aluminium, black
- Pointer element: brass
- Overload protection: 1.3 x of full scale value (max. 800 °C)
- Trimming: ± 6 % of full scale value
- Accuracy class: Ø 63 and Ø 80 category 1.6
Ø 100 category 1
- Nominal sizes: Ø 63, 80, 100 mm
- Probe: stainless steel 1.4301
- Probe diameter: 12 mm
- Probe length: 150 mm
- Thread: thread made of steel or stainless steel 1.4301

Dimensions



Order Details (Example: TND-0D1 60 0C1)

Model	Casing Ø	Case material	Indicating range	Connection Clamp screwing	Damping spring
TND-0D..	63 mm	..4..= Steel painted black with silicone oil fill ..5..= stainless steel with silicone oil fill	..60.. = 0 ... +600 °C	..0C1 = steel, G 1/2 A ..0C2 = steel, G 3/4 A ..0R1 = st. steel, G 1/2 A ..0R2 = st. steel, G 3/4 A	0 = without 1 = with damping spring
TND-0E..	80 mm		..6A.. = 0 ... +650 °C		
TND-0F..	100 mm		..70.. = 0 ... +700 °C		
			..7A.. = 0 ... +750 °C		
			..80.. = 0 ... +800 °C		

Please specify special measuring ranges and other probe lengths in writing.