Case Expansion Transducer TM0602

For steam turbine applications, the relative case expansion due to thermal effect should be monitored. Case expansion is the thermal growth of the machine case as it expands during machine start-up and on-line operations. The TM0602 is typically mounted on the foundation at the opposite end from where the turbine casing is attached to the foundation. The case expansion transducer system provides information on the growth of the machine case relative to the foundation.

LVDTs (linear variable differential transformers) are used to measure the case expansion. Three different linear ranges are available: 25mm (1.0”), 50mm (2.0”) and 100mm (4.0”). The case expansion transducer assembly consists of an LVDT that is housed in a weatherproof protective enclosure.

Specifications

Electrical

Sensitivity:

TM0602-A01: 0.4V/mm (10V/in)
TM0602-A02: 0.2V/mm (5V/in)
TM0602-A03: 0.1V/mm (2.5V/in)

Linearity: +/- 0.5% full-scale
Stability: 0.125% full-scale

Environmental and Physical

Temperature Range: -18℃ to +71℃ (0℉ to +160℉)
Storage Temperature: -54℃ to +93℃(-65℉to +200℉)
Dimensions: See drawing
Weight: 4 kilograms
Case Material: Stainless steel

Order Information

TM0602-AXX

AXX: Linear range
A01: 25mm (1.0”)
A02: 50mm (2.0”)
A03: 100mm (4.0”)

	X	Y	Probe exposure (A)	Thread length (B)
A01	290mm (11.4”)	246mm (9.7”)	40mm (1.6”)	75mm (3”)
A02	340mm (13.4”)	296mm (11.7”)	60mm (2.4”)	75mm (3”)
A03	520mm (20.5”)	476mm (18.7”)	115mm (4.5”)	130mm (5.1”)