

TW13

Protection tube for temperature sensors

Designed for use in processes with heavy thermal and mechanical stresses



Benefits:

- Extension, immersion length and total length can be chosen according to process requirements
- A wide choice of dimensions, materials and process connections is available
- Special versions can be manufactured according to customer requirements

Specs at a glance

- **Max. process pressure (static)** 50 bar (725 psi)
- **Maximum standard immersion length** 4.000 mm (157,48")
- **Max. immersion length on request** 10.000 mm (393,7")

More information and current pricing:

www.cz.endress.com/TW13

Field of application: This protection tube is an important component for temperature measurement points for almost all industrial processes, especially for fine chemicals industries. It is used to protect the measuring insert or sensor elements from aggressive process media, high pressures and flow rates from the temperature sensor itself and thereby enables the thermometer to be exchanged during operation.

Features and specifications

Thermowell

Measuring principle

Fabricated Thermowell

Thermowell

Characteristic / Application

metric style
DIN 43772 Form 2F/3F
langed process connection
with neck

Head connection

external thread:
M24 x 1.5
1/2" NPT

Maximum standard immersion length

4.000 mm (157,48")

Max. immersion length on request

10.000 mm (393,7")

Process connection

flange:
DN15 PN40 B1
DN25 PN40 B1
DN40 PN40 B1
DN50 PN40 B1
ASME 1" 150 RF
ASME 1" 300 RF
ASME 1 1/2" 150 RF
ASME 2" 150 RF
ASME 2" 300 RF

Thermowell root diameter

9 mm (0,35")
11 mm (0,43")
12 mm (0,47")
15 mm (0,59")

Thermowell

Medium contact material

1.4404 (316L)
1.4571 (316Ti)
2.4816 (Alloy 600)
2.4819 (Alloy C276)
PTFE
PVDF
Tantal

Wetted part finishing (Ra)

< 1.6 µm (63.00 µin)

Tip shape

straight
reduced
tapered

Temperature range

-200...1.100 °C (-328...2.012
°F)

Max. process pressure (static)

50 bar (725 psi)

Max. process pressure at 400 °C

depends on process connection

More information www.cz.endress.com/TW13