TEMPERATURFØLERE

ATEX
TEMPERATURFØLERE

NEWTRONIC

BEARING TEMPERATURE PROBES

Bearing temperature probes are designed to measure the temperature in the end shields and windings of high voltage motors. The sensors can be screwed in directly.

PARAMETERS

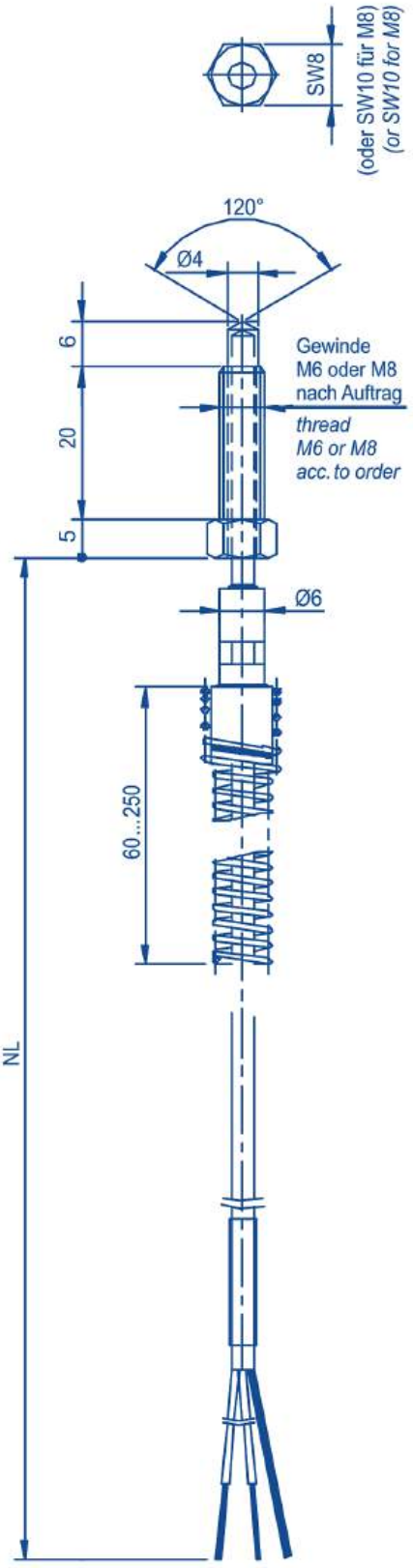
- Operating voltage: U ≤ 30 V
- Sensor current, maximum: 2 mA
- Maximum power: 10mW
- Maximum energy: 10 Joule
- Self-heating: ≤ 1K (at max. power in still air)
- Nominal resistance: 100 Ω/0°C, 500 Ω/0°C, 1000 Ω/0°C
- AC proof voltage: 1,0 kV/50 Hz, 1 min
- Connection type:
  1 sensor: 2-, 3- or 4-wire connection
  2 sensors: 2- or 3-wire connection
- Operating temperature: -55°C ... +180°C
- Connection cable: teflon/shield/silicone

RESISTANCE THERMOMETER
WTH 160-250

CERTIFICATION
IBExU16ATEX1026 U
IECEx IBE 15.0026U

ATEX MARKING
II 2G Ex mb IIC Gb or
II 2G Ex ib IIC Gb or
II 1G Ex ia IIC Ga

IECEX MARKING
Ex mb IIC Gb or
Ex ib IIC Gb or
Ex ia IIC Ga

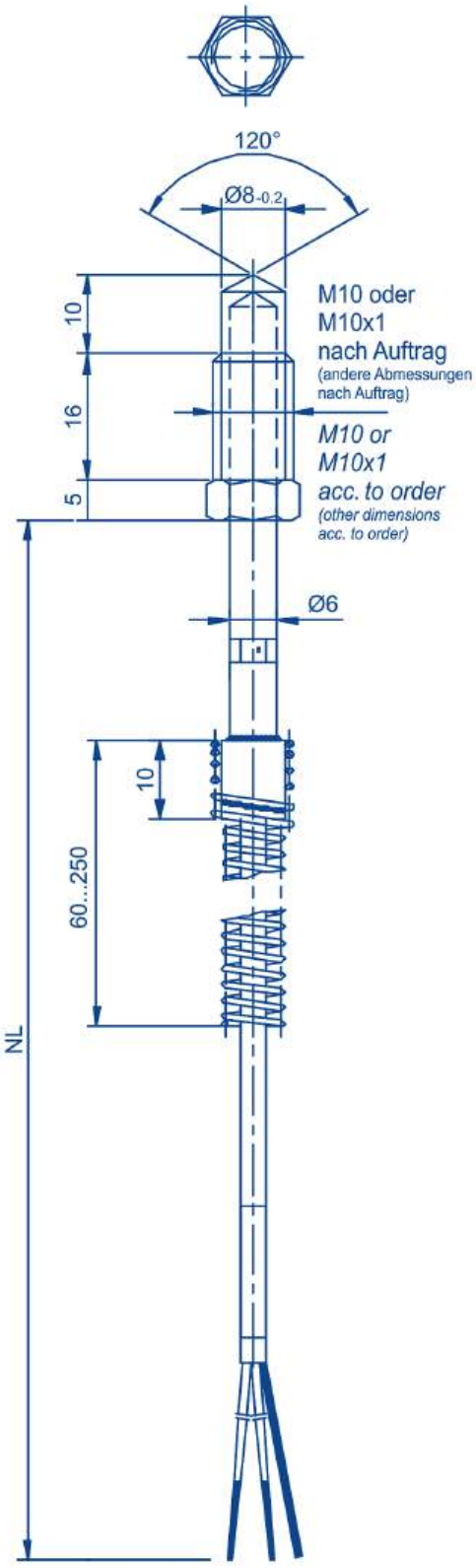


RESISTANCE THERMOMETER
WTH 280-40 0

CERTIFICATION
IBExU16ATEX1026 U
IECEx IBE 15.0026U

ATEX MARKING
II 2G Ex mb IIC Gb or
II 2G Ex ib IIC Gb or
II 1G Ex ia IIC Ga

IECEX MARKING
Ex mb IIC Gb or
Ex ib IIC Gb or
Ex ia IIC Ga



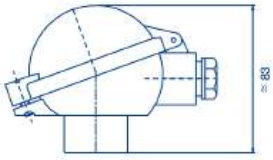
INTRINSICALLY SAFE TEMPERATURE PROBES

Intrinsically safe temperature probes are used for temperature measurement in process technology (chemical, pharmaceutical and petro-industries). They can be used in potentially explosive atmospheres with flammable gases and vapors up to group IIC. Intrinsically safe temperature sensors consist of a measuring insert, a connection head and a protective fitting.

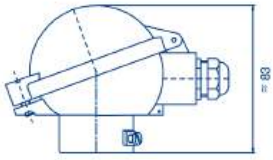
PARAMETERS

- Temperature range: -200°C ... +800°C
- Sensor type: Pt 100 DIN EN 60751 or thermocouple
- Protection class IP 65
- Marking:
  II 1 G Ex ia IIC Ga or
  II 2 G Ex ib IIC T6 Gb or
  II 1/2 G Ex ib IIC T6 Ga/Gb
- EC- type Examination Certificate Number:
  PTB 05 ATEX 2031 X
- Installation temperature probes:
  Protective tube with:
- welded mounting thread
- adjustable compression fitting
- welded flange
- deep-hole-drilled weld-in sleeve
- Connection head:
- design: hinged lid with screw
- protection class IP 65
- made of Al die-casting varnished (XE) or
  polyamide PA 12 antistatic (XI)
- screwed cable gland M20 x 1.5 for Ø 5...10 mm

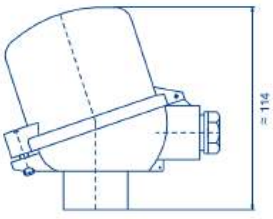
POSSIBLE CONNECTION HEADS FOR INTRINSICALLY SAFE TEMPERATURE PROBES



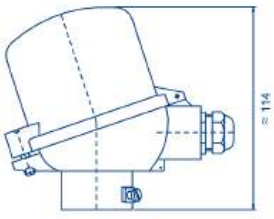
XI-DSN
Ex II 1G Ex ia IIC Ga



XE-DANA
Ex II 2G Ex eb IIC Gb
Ex II 2D Ex tb IIIC Db



XI-DSNW
Ex II 1G Ex ia IIC Ga



XE-DANAW
Ex II 2G Ex eb IIC Gb
Ex II 2D Ex tb IIIC Db

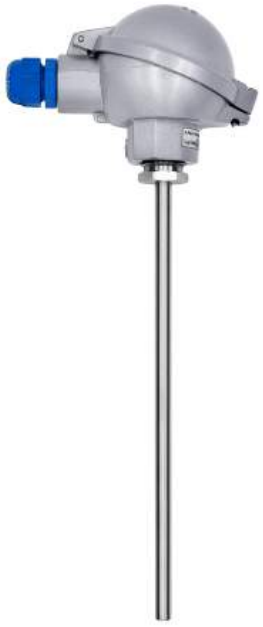
PLUG-IN TEMPERATURE PROBES
TYPE R240 / T340

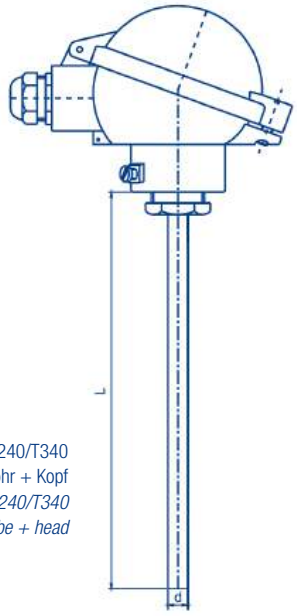
DESIGN
without clamp connection, with welded protective tube
and exchangeable measuring insert

PROTECTIVE TUBE
material 1.4571 with inspection certificate EN 10204 3.1B
compression test with quality test certificate DIN 55350 18 4.2.1
d = 9...15 mm, L = 100...550 mm

MEASURING INSERT
Type R205 / T305

OPERATING TEMPERATURE
-200°C ... +800°C





Typ R240/T340
Messeinsatz + Schutzrohr + Kopf
Type R240/T340
Measuring insert + protective tube + head

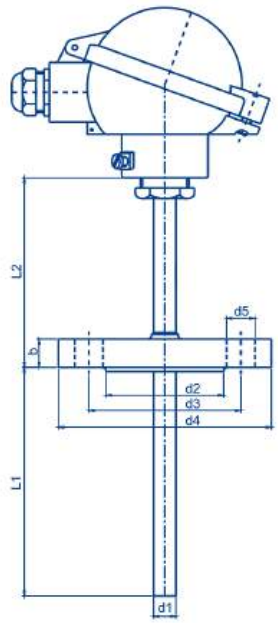
TEMPERATURE PROBES WITH FLANGE
TYPE R274 / T374

DESIGN
EN 1092-1 05
with welded protective tube and exchangeable measuring insert

PROTECTIVE TUBE
with flange EN 1092 1 05
d2, d3, d4, b - acc. to DIN or acc. to order
material 1.4571 with inspection certificate EN 10204 3.1B
compression test with quality test certificate DIN 55350 18 4.2.1
d1 = 9...15 mm
L1 = 100...1000 mm
L2 = 65...160 mm

MEASURING INSERT
Type R205 / T305

OPERATING TEMPERATURE
-200°C ... +800°C



Typ R274/T374
Messeinsatz + Schutzrohr
+ Kopf + Flansch
Type R274/T374
Measuring insert + protective tube
+ head + flange

TEMPERATURE PROBES WITH DEEP-HOLE-DRILLED WELD-IN SLEEVE TYPE R272 / T372

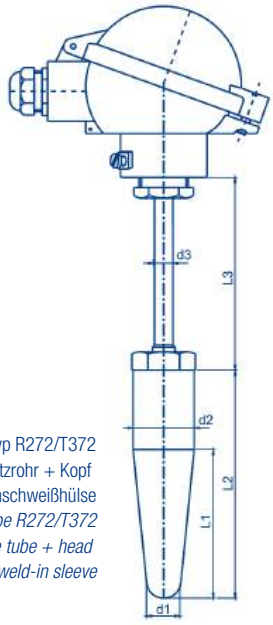
DESIGN
with deep-hole-drilled weld-in sleeve and exchangeable measuring insert

PROTECTIVE TUBE
deep-hole-drilled rod material (form 4 respectively D4)
material 1.4571 with inspection certificate EN 10204 3.1B
compression test with quality test certificate DIN 55350 18 4.2.1
L3 = 65...160 mm, d3 = 9...15 mm

NECK TUBE
material 1.4571,
d1, d2, L1, L2 - acc. to DIN or acc. to order
G = G½, M18x1.5 – other versions on request

MEASURING INSERT
Type R205 / T305

OPERATING TEMPERATURE
-200°C ... +800°C



Typ R272/T372
Messeinsatz + Schutzrohr + Kopf
+ Verschraubung + Einschweißhülse
Type R272/T372
Measuring insert + protective tube + head
+ fitting + weld-in sleeve

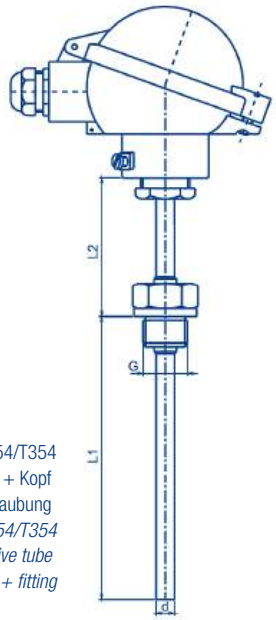
TEMPERATURE PROBES WITHSCREWED END
TYPE R254 / T354

DESIGN
with screwed end, with welded protective tube
and exchangeable measuring insert

PROTECTIVE TUBE
with screwed end
material 1.4571 with inspection certificate EN 10204 3.1B
compression test with quality test certificate DIN 55350 18 4.2.1
d = 9...15 mm
L1 = 100...400 mm
L2 = 65...160 mm
G = G½ A, M20x1.5 – other versions on request

MEASURING INSERT
Type R205 / T305

OPERATING TEMPERATURE
-200°C ... +800°C



Typ R254/T354
Messeinsatz + Schutzrohr + Kopf
+ Verschraubung
Type R254/T354
Measuring insert + protective tube
+ head + fitting

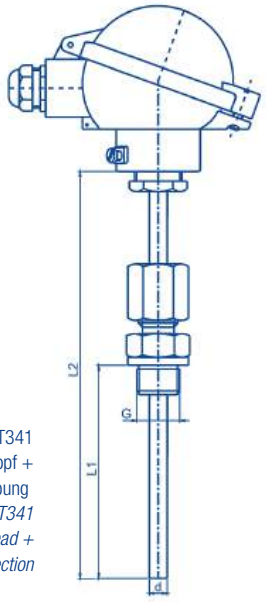
TEMPERATURE PROBES WITH CLAMP CONNECTION TYPE R241/T341

DESIGN
with clamp connection
with welded protective tube and exchangeable measuring insert

PROTECTIVE TUBE
with clamp connection
material 1.4571 with inspection certificate EN 10204 3.1B
compression test with quality test certificate DIN 55350 18 4.2.1
d = 9...15 mm
L1 = 60...400 mm
L2 = 290...530 mm
G = G½", M14x1.5 - other versions on request

MEASURING INSERT
Type R205 / T305

OPERATING TEMPERATURE
-200°C ... +800°C



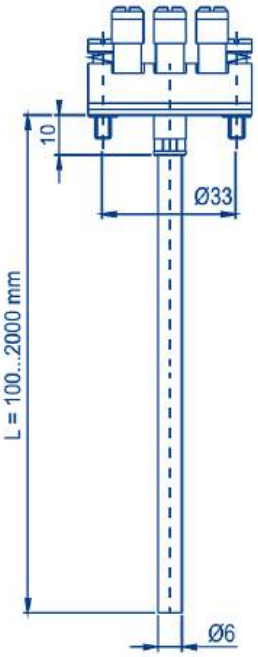
Typ R241/T341
Messeinsatz + Schutzrohr + Kopf + Klemmverschraubung
Type R241/T341
Measuring insert + protective tube + head + clamp connection

EXCHANGEABLE MEASURING INSERT FOR INSTALLATION TEMPERATURE PROBES TYPE R205/T305

DESIGN
mineral insulated cable Ø 6 mm - others on request
material 1.4571
mineral insulated, flexible
temperature sensitive length for type R205: 30 mm (non-flexible)
elastically installable

SPECIFIC CHARACTERISTICS
- low drift
- excellent vibration stability
- high thermal shock resistance

OPERATING TEMPERATURE
-200°C ... +800°C



Messeinsätze
Widerstandsensor R 205 /
Thermoelement T305
Measuring inserts
sensor resistor R205 /
thermocouple T305

FLAMEPROOF ENCLOSURE RESISTANCE THERMOMETERS

Flameproof enclosure resistance thermometers are designed to measure the temperature in diverse applications.

PARAMETERS

Nominal resistance sensor:	100 Ω/0°C, 1000 Ω/0°C
Number of sensors:	1 or 2
Connection type:	2-, 3-, 4-wire connection
Sensor current, max.:	10 mA
Protection class:	IP66
Probe operating temp.:	-50°C ... +260°C
Electric strength probe:	1,0 kV/50 Hz, 1 min
Marking:	II 2 G Ex d IIC T6 resp. T5
EC-type-examination Certificate Number:	PTB 08 ATEX 1099

Protective tube
material 1.4571, d = 6 ...15 mm, L = 35 ... 3000 mm,
G = G½A – other versions on request

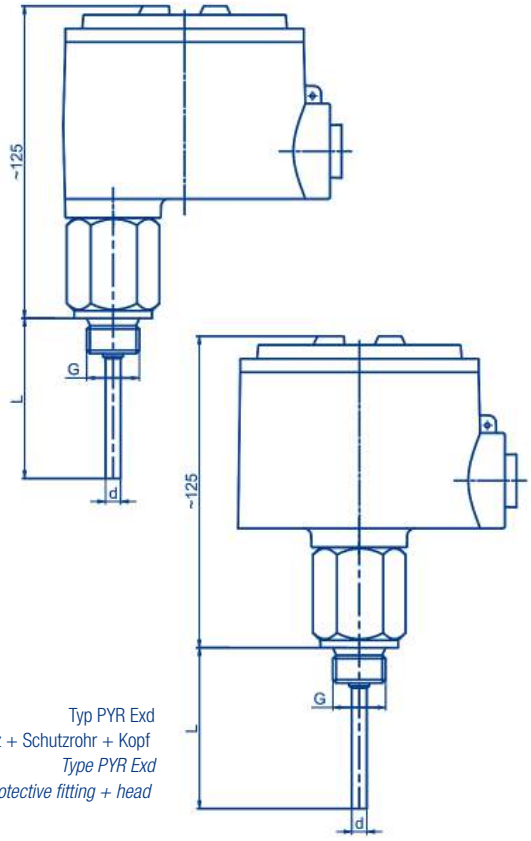
Connection head
aluminium diecasting, Typ XD-JBB,
XD-JBBwin (Typ XD-JBA, XD- JBAwin - on request)

FLAMEPROOF ENCLOSURE RESISTANCE THERMOMETERS TYPE PYR EXD

DESIGN

resistance thermometer protected against explosions
consists of:
- a protective fitting with different process connection,
- a connection head and
- an exchangeable measuring insert

process connection: Ø 6 mm ... 15 mm
with measuring transducer in the connection head for measured value transmission (optional)



Typ PYR Exd
Messeinsatz + Schutzrohr + Kopf
Type PYR Exd
Measuring insert + protective fitting + head

SLOT SENSOR RESISTORS

Slot sensor resistors are designed to measure the temperature of the windings in high voltage motors.

PARAMETERS

- Operating voltage: U ≤ 10 V
- Sensor current: 0,8 mA...2 mA
- Maximum active power: 10mW
- Self-heating: ≤ 1K (at maximum power in still air)
- Nominal resistance: 100 Ω... 1000 Ω/0°C
- AC proof voltage: 5,0 kV/50 Hz, 1 min, sensor in salt water
- Connection type: 2-, 3- oder 4-wire connection
- Operating temperature:
  -50°C ... +180°C (für NWT 50C, NWT 200C und NWT 200G)
  -55°C ... +180°C (für NWT 100C)
- Connecting cable: teflon connection cable
  (on request also available wih shield or single wires)

NWT 50C / 100C / 200C / 200G / DNW 180-3.1, DNW 180-3...-5

Länge / *length:*	l	nach Auftrag acc. to order
Breite / *width:*	b	
Dicke / *thickness:*	s	

SLOT RESISTANCE THERMOMETER NWT 50C

CERTIFICATION
IBExU16ATEX1026 U
IECEx IBE 15.0026U

ATEX MARKING
II 2G Ex eb IIC Gb or
II 2G Ex ib IIC Gb or
II 1G Ex ia IIC Ga

IECEX MARKING
Ex eb IIC Gb or
Ex ib IIC Gb or
Ex ia IIC Ga

SLOT RESISTANCE THERMOMETER NWT 100C

CERTIFICATION
IBExU16ATEX1026 U
IECEx IBE 15.0026U

ATEX MARKING
II 2G Ex eb IIC Gb or
II 2G Ex ib IIC Gb or
II 1G Ex ia IIC Ga

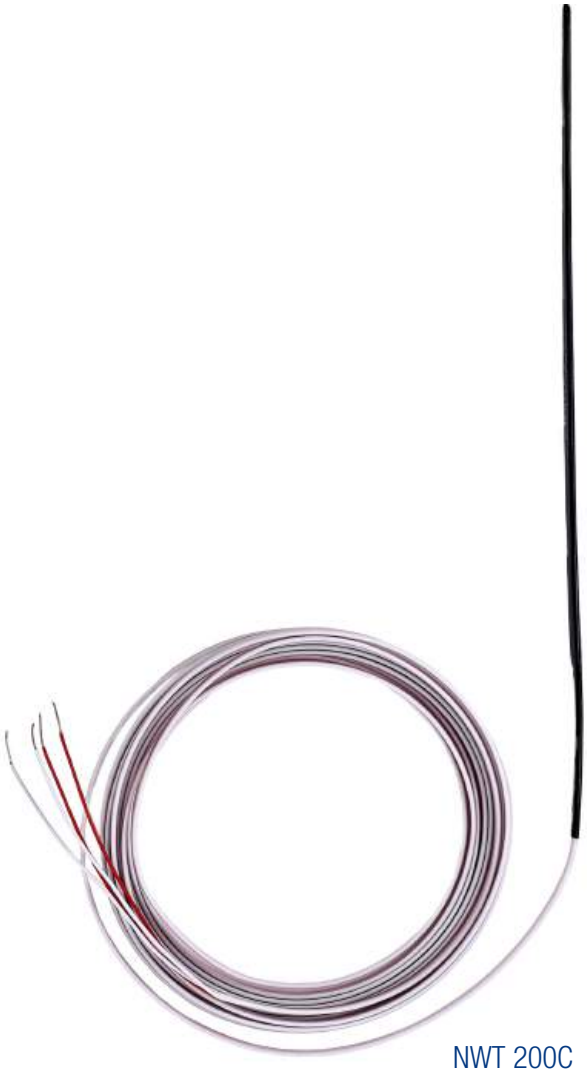
IECEX MARKING
Ex eb IIC Gb or
Ex ib IIC Gb or
Ex ia IIC Ga

SLOT RESISTANCE THERMOM
NWT 200C AND NWT 200G

CERTIFICATION
IBExU16ATEX1026 U
IECEx IBE 15.0026U

ATEX MARKING
II 2G Ex eb IIC Gb or
II 2G Ex ib IIC Gb or
II 1G Ex ia IIC Ga

IECEX MARKING
Ex eb IIC Gb or
Ex ib IIC Gb or
Ex ia IIC Ga



NWT 200C

NWT 200G

SLOT RESISTANCE THERMOMETER DNW 180-3.1

CERTIFICATION
PTB 03 ATEX 2123 U
IECEx PTB 16.0018U

ATEX MARKING
II 2 G Ex e II or
II 2 G Ex ib IIC

IECEX MARKING
Ex ib IIC or
Ex e II

END WINDING PROBES

End winding probes are designed to measure the temperature of the windings in high voltage motors.

SLOT RESISTANCE THERMOMETER NWT PYRA8 K

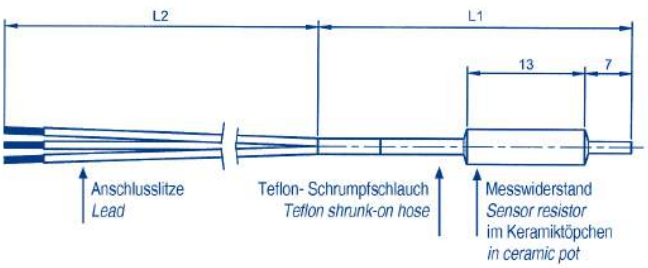
CERTIFICATION
IIBExU16ATEX1026 U
IECEx IBE 15.0026U

ATEX MARKING
II 2G Ex eb IIC Gb or
II 2G Ex ib IIC Gb or
II 1G Ex ia IIC Ga

IECEX MARKING
Ex eb IIC Gb or
Ex ib IIC Gb or
Ex ia IIC Ga

PARAMETERS

- Operating voltage: U ≤ 10 V
- Sensor current: 0,8 mA...2 mA
- Maximum active power: 10mW
- Self-heating: ≤ 1K (at maximum power in still air)
- Sensor: Pt- or Ni- element, others on request
- Nominal resistance: 100 Ω ...1000 Ω /0°C
- AC proof voltage: 5,0 kV/50 Hz, 1 min, sensor in salt water
- Connection type: 2-, 3- oder 4-wire connection
- Operating temperature: -55°C ... +180°C
- Connecting cable: teflon strand resp., (e.g. cable teflon/shield/teflon)
- Hochspannungsfestigkeit: 5,0 kV/50 Hz, 1 min, Fühler in Salzwasser
- Schaltungsart: 2-, 3- oder 4-Leiterschaltung
- Temperaturbeständigkeit: -55°C ... +180°C
- Anschlussleitung: Teflonlitze bzw. Kabel, (z.B. Teflon/Schirm/Teflon)



SLOT RESISTANCE THERMOMETER NWT PYRA8 G

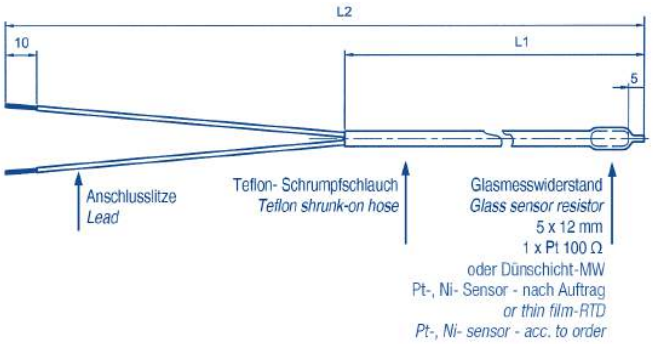
CERTIFICATION
IBExU16ATEX1026 U
IECEx IBE 15.0026U

ATEX MARKING
II 2G Ex eb IIC Gb or
II 2G Ex ib IIC Gb or
II 1G Ex ia IIC Ga

IECEX MARKING
Ex eb IIC Gb or
Ex ib IIC Gb or
Ex ia IIC Ga

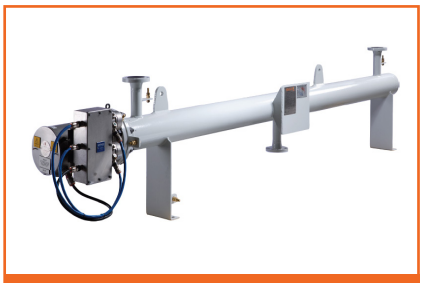
PARAMETERS

- Operating voltage: U ≤ 10 V
- Sensor current: 0,8 mA...2 mA
- Maximum active power: 10mW
- Self-heating: ≤ 1K (at maximum power in still air)
- Nominal resistance: 100 Ω ...1000 Ω /0°C
- AC proof voltage: 5,0 kV/50 Hz, 1 min, sensor in salt water
- Connection type: 2-, 3- oder 4-wire connection
- Operating temperature: -55°C ... +180°C
- Connecting cable: teflon connection cable



ELVARME

VORES PRODUKTSORTIMENT INKLUDERER:



TEMPERATURE CONTROL

AIR WARMERS

THE BULLDOG

SPIRAL HEATERS

PROCESS HEATERS

TEMPERATURFØLERE

VI FØRER PRODUKTER INDENFOR KATEGORIERNE:

AUTOMATIK

HVAC & BYGNINGS-AUTOMATIK

KØLEPROFILER

NEWTRONIC
Ove Jensens Alle 35 F
DK-8700 Horsens
Denmark
www.newtronic.eu
www.newtronic.dk
+45 7669 7090