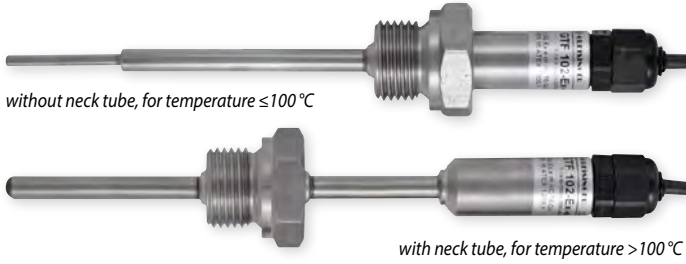


INDUSTRIAL TEMPERATURE PROBES (ATEX 100)



without neck tube, for temperature  $\leq 100^\circ\text{C}$

with neck tube, for temperature  $> 100^\circ\text{C}$

FOR ALL POTENTIALLY EXPLOSIVE ATMOSPHERES OF THE EQUIPMENT-GROUP II WITH THE PROTECTION (I) OR (E)

**GTF 102-EX**

-200 °C ... +100 °C (without neck tube)  
-200 °C ... +900 °C (with neck tube)

**General:**

Readily assembled voltage free temperature probe of stainless steel with connection cable. The sensor inset is not exchangeable. Thread is welded or brazed to the probe.

**Specifications:**

**Sensors:**

**Pt100 / Pt1000, mineral insulated element, 4-wire:**

Measuring ranges: -200 °C ... +100 °C (600 °C - with neck tube), DIN cl. B

**Type K; mineral insulated thermocouple:**

Measuring ranges: -200 °C ... +100 °C (900 °C - with neck tube), class 1

**Probe length:**

up to 100 mm, upcharge per further starting 100 mm

**Neck tube length:**

without  
upcharge per starting 100 mm

**Probe diameter:**

3 mm, 4 mm, 5 mm, 6 mm or 8 mm

**Thread:**

G1/2", G3/8" (standard)  
G1/8", G1/4", G3/4", M8x1, M10x1

**Cable length: (4-wire)**

**Kabelart:**

Silicone cable, Surcharge per additional meter of cable  
PVC, teflon (Pt100/Pt1000 only)

**Ambient temperature:**

-20 ... +60 °C (protection type „e“ and protection type „i“ zone 0, 20) or -20 ... +80 °C (+60 °C) (protection type „i“ zone 0/1, 1, 2, 20/21, 21, 22)

**Type of protection:**

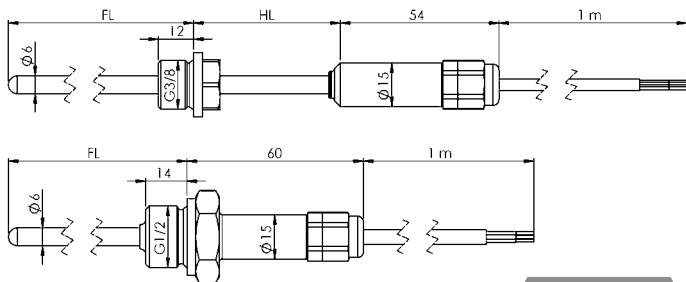
„i“: intrinsic safety  
„e“: increased safety (not for zone 0 and 20)

**Potentially explosive atmospheres:**

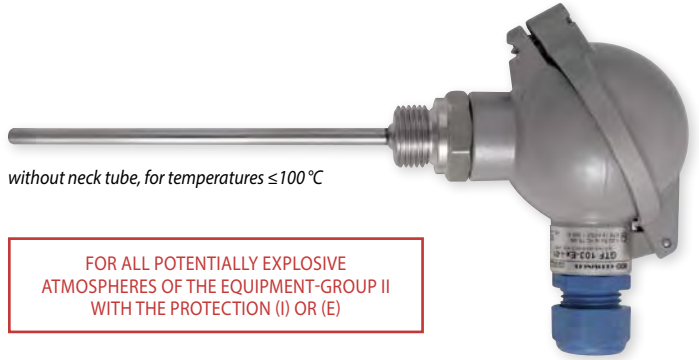
suitable for zone 0, zone 0/1, zone 1, zone 2, zone 20, zone 20/21, 21, zone 22

To determine exact order name ask for our type list.

Download via homepage possible



Note: Not all execution options are possible in all zones!



without neck tube, for temperatures  $\leq 100^\circ\text{C}$

FOR ALL POTENTIALLY EXPLOSIVE ATMOSPHERES OF THE EQUIPMENT-GROUP II WITH THE PROTECTION (I) OR (E)

**GTF 103-EX**

-200 °C ... +100 °C (without neck tube)  
-200 °C ... +900 °C (with neck tube)

**General:**

Readily assembled voltage free temperature probe of stainless steel connection head and clamping block. The sensor inset is exchangeable. Thread is welded or brazed to the probe. Mounting is done via clamping ring fitting or thread welded / brazed to the probe tube. The connection head is also suitable to carry a head transmitter.

**Specifications:**

**Sensors:**

**Pt100 / Pt1000; mineral insulated element, 4-wire:**

Measuring ranges: -200 °C ... +100 °C (600 °C - with neck tube), DIN cl. B

**Type K; mineral insulated thermocouple (without upcharge):**

Measuring ranges: -200 °C ... +100 °C (900 °C - with neck tube), class 1

**Probe length:**

up to 100 mm, upcharge per further starting 100 mm

**Neck tube length Ø 3 mm, 4 mm, 5 mm:**

without (without upcharge)  
upcharge per starting 100 mm

**Probe diameter:**

3 mm (the sensor inset is not exchangeable) (without upcharge)  
4 mm, 5 mm, 6 mm or 8 mm (the sensor inset exchangeable)

**Thread:**

G1/2", G3/8" (Standard) or without thread (without upcharge)  
G1/8", G1/4", G3/4", M8x1, M10x1

**Ambient temperature:**

**Intrinsically safe version without output signal**

zone 0, 20: -20 °C ... +60 °C; zone 0/1, 1, 2, 20/21, 21, 22: -20 °C ... +80 °C (+60 °C)

**Intrinsically safe version with output signal 4 ... 20 mA**

zone 0, 20: -20 °C ... +40 °C; zone 0/1, 1, 2, 20/21, 21, 22: -20 °C ... +50 °C (+40 °C)

**Version with elevated safety:** zone 1, 2, 21, 22: -20 °C ... +60 °C

**Type of protection:**

„i“: intrinsic safety (without upcharge)  
„e“: increased safety (not for zone 0 and 20)

**Potentially explosive atmospheres:**

suitable for zone 0, zone 0/1, zone 1, zone 2, zone 20, zone 20/21, zone 21, zone 22

**Transmitter GITT 01-Ex**

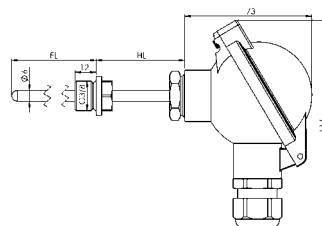
(please refer to page 54), output signal 4 ... 20 mA, measuring range on customers demands, protection type „i“ intrinsic safety.

**Clamping ring screw connection:**

M8x1, M10x1, G1/4" and G1/2" for diameter 3 mm, 6 mm or 8 mm.  
Please refer to page 85

To determine exact order name ask for our type list.

Download via homepage possible



Note: Not all execution options are possible in all zones!



INDUSTRIAL TEMPERATURE PROBES (ATEX 100)

**GTF 102-Ex-** [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

**Protection type:**

e Gas: increased safety, encapsulation (em)  
 - only permitted for zone 1 and 2

Dust: encapsulation (mb)  
 - only permitted for zone 21 and 22

i Intrinsic safety

**Potentially explosive atmospheres:**

Gases:

00 zone 0

0A zone 0/1 probe tube in zone 0 and cable sleeve in zone 1

01 zone 1 and zone 2

Dusts:

20 zone 20

2A zone 20/21 probe tube in zone 20 and cable sleeve in zone 21

21 zone 21 and zone 22

**Sensor element:**

P Pt100

T Pt1000

K Thermocouple type K

Size of screw thread:	Comment
00 without thread	not suitable for zone isolation !
11 G 1/8"	G-screw thread
12 G 1/4"	
13 G 3/8"	
14 G 1/2"	
15 G 3/4"	M-screw thread
22 M10x1	
23 M12x1.5	
24 M14x1.5	
25 M16x1.5	other threads (e.g. NPT) on request
26 M18x1.5	

**Neck tube:**

K without neck tube (for -50 °C ≤ T ≤ 100 °C)

M with neck tube (please refer to note below)

**Neck tube length:**

xxx length in mm

e.g. 050 (= standard length)

**Probe tube diameter:**

x 3, 4, 5, 6 or 8 mm

Hint:

- for zone 0/1, 20/21 (= zone isolation) only 6 mm or 8 mm available
- observe for D = 3 mm:
  - minimum probe length is 60 mm
  - the probe diameter is reduced, tube top D = 3 mm (for approx. 30 mm) afterwards D = 6 mm

**Probe length (fitting length):**

xxxx length in mm

e.g. 0100 (= 100 mm)

**Cable length: (4-wire)**

x length in m

e.g. 1 (= 1 m)

**Cable type:**

S silicone cable

P PVC cable (only available for sensor = Pt100 / Pt1000)

T teflon cable (only available for sensor = Pt100 / Pt1000)

**Notify for ambient temperature:**

intrinsic safety type

zone 0, 20: -20 °C ... +60 °C

zone 0/1, 1, 2: -20 °C ... +80 °C (+60 °C bei T6)

zone 20/21, 21, 22: -20 °C ... +80 °C (+60 °C bei T<100 °C)

type with increased safety

zone 1, 2, 21, 22: -20 °C ... +60 °C

**Recommended min. neck tube length according max. meas. range:**

Neck tube construction:	measuring range:	
	Pt 100 a type K	Pt 1000
- without neck tube	-50 ... +100 °C	-50 ... +100 °C
- neck tube above 50 mm	-200 ... +250 °C	-70 ... +250 °C
- neck tube above 100 mm	-200 ... +400 °C	-70 ... +400 °C
- neck tube above 200 mm	-200 ... +600 °C	-70 ... +600 °C

*For reference only! The length should be selected so that the max. specified ambient temperature of the cable sleeve is not exceeded in your installation situation.*

**Ordering example:** GTF 102-Ex for protection type "i", Ex-zone 1, with Pt100, thread: G 1/2", neck tube length: 50 mm, probe diameter: 6 mm, probe length: 200 mm, cable length: 3 m, silicone cable

**GTF 102-Ex- [ i ] [ 0 ] [ 1 ] [ P ] [ 1 ] [ 6 ] [ M ] [ 0 ] [ 5 ] [ 0 ] [ 6 ] [ 0 ] [ 2 ] [ 0 ] [ 0 ] [ 3 ] [ S ]**