

Overview

- For corrosive gasses and liquids
- Reinforced version for harsh conditions
- Class 1 and 2 according to EN 13190
- Wetted parts: Stainless steel
- Option: Case material 1.4404 (316L) for aggressive atmosphere
- Option: filling fluid in the case to avoid moisture and for applications with vibrations



Picture similar


Technical data
Housing

Protection rating (EN 60529) IP68

Dial White, aluminium

 Pointer Black, aluminium
Adjustable

Window material Instrument glass

Window gasket Elastomer (silicone)

Nominal size 100 mm

Case material Stainless steel 1.4301 / AISI 304

Bezel ring material Stainless steel 1.4301 / AISI 304

Temperature

 Temperature range -70°C ... +600°C
-100°F ... +1100°F

Temperature limitation ≤ 400 °C 135 % FS

Temperature limitation > 400 °C 100 % FS

Wetted parts

Immersion tube material Stainless steel 1.4571 / AISI 316Ti

Minimum immersion length for immersion tube 6 mm L2 ≥ 65 mm

Minimum immersion length for immersion tube 8 mm L2 ≥ 50 mm

Performance

 Accuracy according to EN 13190 up to 250 °C: class 1
above 250 °C: class 2

Electrical data

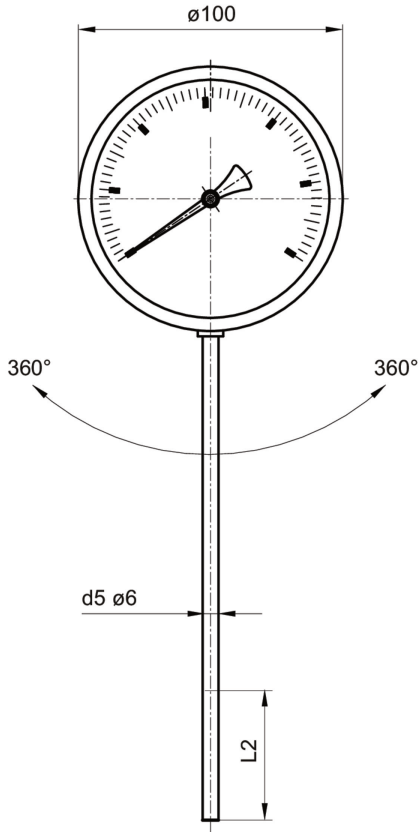
 ATEX Ex II 2 GDc
(with option 0078)

 Vibrations IEC 60068-2-6
0.15 mm (10 ... 58 Hz)
2 g (58 Hz ... 150 Hz)
MIL STD 810E, Meth. 514.4
0.015 g2/Hz (10 Hz)
0.015 g2/Hz (40 Hz)
0.00015 g2/Hz (500 Hz)

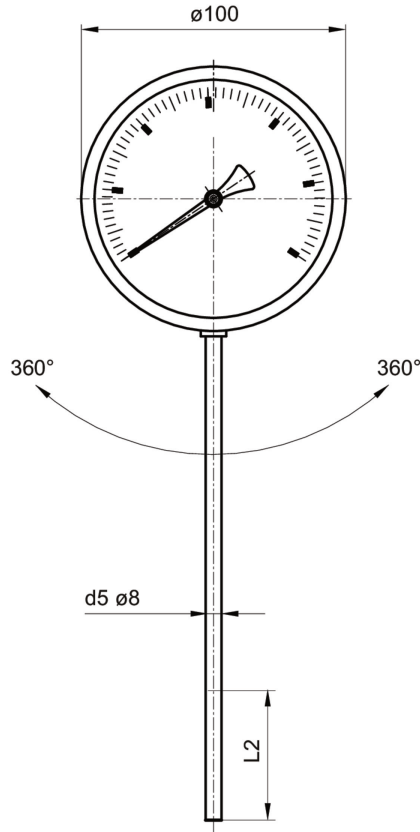
Weight

Thermometer 450 g

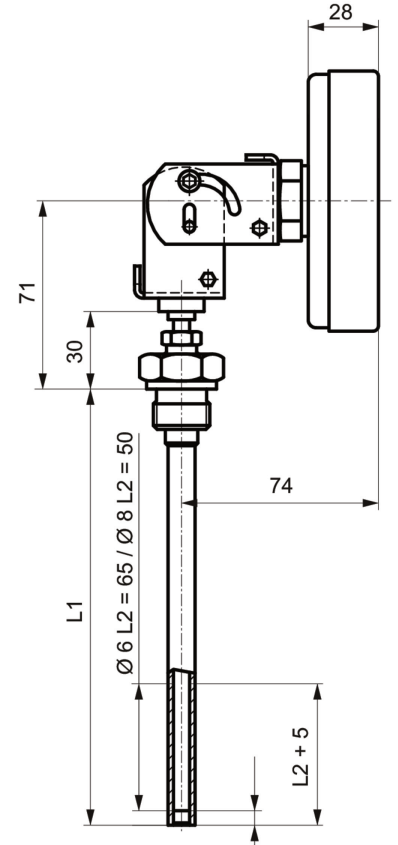
Dimensional drawings (mm)



Immersion tube center back, every angle without connection

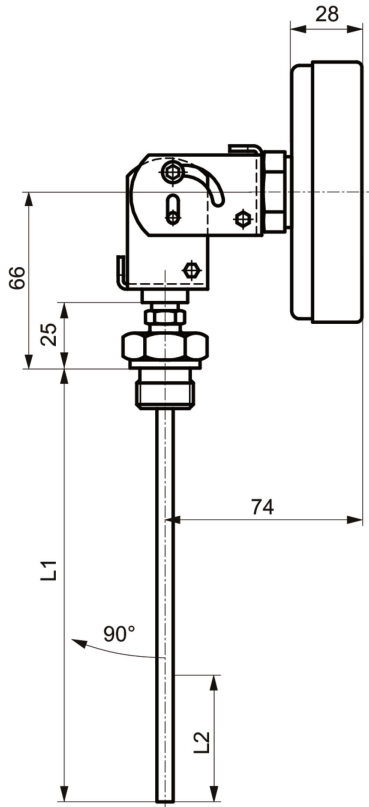


Immersion tube center back, every angle without connection

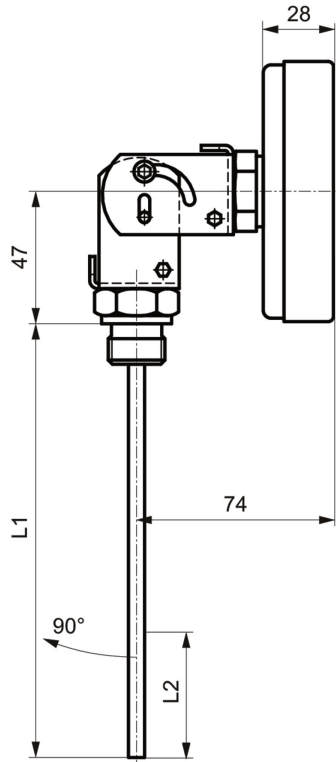


Mounted in a thermowell

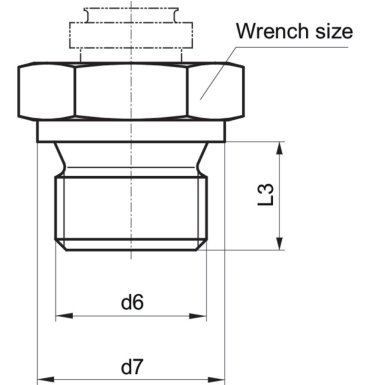
Dimensional drawings (mm)



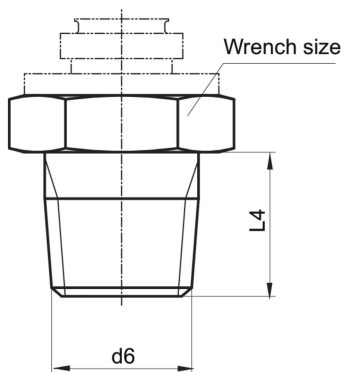
With sliding connection



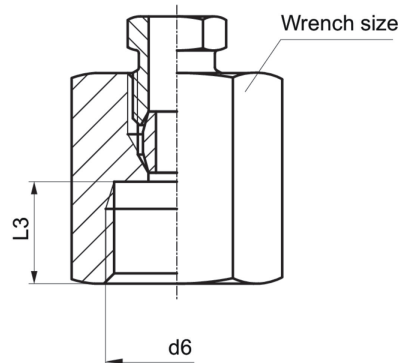
With fix connection



Cylindrical screw threads



Conical screw threads



Sliding screw connection female

TBHI 100

Bimetalthermometer, heavy industry version

TBHI100-2#4.1###.###

Dimensional drawings (mm)

d6	d7	L3	L4	Wrench size	Weight (kg)	
					sliding	fix
G½", male	26	15	–	27	0.095	0.090
G¾", male	32	16	–	32	0.150	0.140
G1", male	39	19	–	41	0.210	0.240
M20 x 1.5, male	27	14	–	27	0.090	0.090
M24 x 1.5, male	27	15	–	27	0.110	0.110
½" - 14 NPT", male	–	–	20	27	0.095	0.100

Temperature ranges

Code	Range °C	Code	Range °F	Code	Range (double scale) °C / °F
52T	-20 ... 40	68U ¹⁾	-100 ... 120	51V	-30 ... 70 / -40 ... 160
54T	-20 ... 60	09U ¹⁾	-50 ... 120	68V ¹⁾	-70 ... 50 / -100 ... 100
84T	-20 ... 100	08U ¹⁾	-40 ... 160	55V	-30 ... 170 / 0 ... 350
55T	-30 ... 170	54U	0 ... 140	11V	0 ... 60 / 30 ... 140
51T	-30 ... 70	02U	0 ... 200	20V	0 ... 120 / 30 ... 250
68T ¹⁾	-70 ... 50	03U	0 ... 250	13V	0 ... 160 / 30 ... 320
11T	0 ... 60	04U	0 ... 300	14V	0 ... 250 / 30 ... 500
27T	0 ... 80	05U	0 ... 400	15V ¹⁾	0 ... 400 / 30 ... 750
12T	0 ... 100	06U	0 ... 500	16V ¹⁾	0 ... 600 / 100 ... 1100
20T	0 ... 120	11U	30 ... 140		
13T	0 ... 160	20U	30 ... 250		
22T	0 ... 200	13U	30 ... 320		
14T	0 ... 250	22U	30 ... 400		
23T ¹⁾	0 ... 300	23U ¹⁾	30 ... 580		
15T ¹⁾	0 ... 400	15U ¹⁾	30 ... 750		
25T ¹⁾	0 ... 500	28U ¹⁾	100 ... 800		
16T ¹⁾	0 ... 600	29U ¹⁾	200 ... 1000		
30T ¹⁾	100 ... 500				

Ordering reference

Ordering key - Configuration possibilities see website

	TBHI100	-	2	#	4	.	1	##	#	.	###
Product	TBHI100										
Case and ring											
1.4301 (AISI 304)											2
Process connection											
without connection											1
M20 X 1.5, sliding ⁽¹⁾											2
M24 X 1.5, sliding ⁽¹⁾											3
G 1/2, sliding ⁽¹⁾											5
1/2-14 NPT, sliding ⁽²⁾											6
G 3/4, sliding ⁽¹⁾											7
G 1, sliding ⁽¹⁾											8
G1/2 (female), sliding											9
G3/4 (female), sliding											A
G1 (female), sliding											B
G 1/2, fix ⁽³⁾											C
G 3/4, fix ⁽³⁾											D
G 1, fix ⁽³⁾											E
M20 X 1.5, fix ⁽³⁾											S
M24 X 1.5, fix ⁽³⁾											T
1/2-14 NPT, fix ⁽³⁾											Q
(additional ordering code needed)											0
Immersion tube outlet											
rückseitig, zentrisch, dreh- und schwenkbar											4
Indicator											
EN 13190 (standard)											1
Tube diameter											
6 mm, st. steel 1.4571											4
8 mm, st. steel 1.4571											6
Tube installed length											
60 mm ⁽⁴⁾											1
100 mm											2
160 mm											4
250 mm											6
400 mm											7
600 mm											8
1000 mm											9
customer specific length											0
Temperature range⁽⁵⁾											
-20...40°C											52T
-20...60°C											54T
-20...100°C											84T
-30...170°C											55T
-30...70°C											51T
-70...50°C											68T
0...60°C											11T
0...80°C											27T
0...100°C											12T
0...120°C											20T

Ordering reference

Ordering key - Configuration possibilities see website

	TBHI100	-	2	#	4	.	1	##	#	.	###
0...160°C											13T
0...200°C											22T
0...250°C											14T
0...300°C											23T
0...400°C											15T
0...500°C											25T
0...600°C											16T
100...500°C											30T
-100...120°F											68U
-50...120°F											09U
-40...160°F											08U
0...140°F											54U
0...200°F											02U
0...250°F											03U
0...300°F											04U
0...400°F											05U
0...500°F											06U
30...140°F											11U
30...250°F											20U
30...320°F											13U
30...400°F											22U
30...580°F											23U
30...750°F											15U
100...800°F											28U
200...1000°F											29U
-30...70°C / -40...160°F											51V
-70...50°C / -100...100°F											68V
-30...170°C / 0...350°F											55V
0...60°C / 30...140°F											11V
0...120°C / 30...250°F											20V
0...160°C / 30...320°F											13V
0...250°C / 30...500°F											14V
0...400°C / 30...750°F											15V
0...600°C / 100...1100°F											16V

- (1) Form 2 according to EN 13190
- (2) Form 6 according to EN 13190
- (3) Form 3 according to EN 13190
- (4) L1 < 100 mm: only for immersion tube Ø 8 mm and only for temperature ≤ 250 °C. The case must not be heated over 110 °C.
- (5) Available standard temperature ranges, see table in section temperature ranges. For ranges not listed, please contact Bourdon

Ordering example

	TBHI100	-	2	1	4	.	1	4	1	.	52T
Product	TBHI100										
Case and ring	1.4301 (AISI 304)										
Process connection	without connection										
Immersion tube outlet	rückseitig, zentrisch, dreh- und schwenkbar										

TBHI 100

Bimetalthermometer, heavy industry version

TBHI100-2#4.1###.###

Ordering reference

Ordering example

TBHI100 - 2 1 4 . 1 4 1 . 52T

Indicator

EN 13190 (standard)

1

Tube diameter

6 mm, st. steel 1.4571

4

Tube installed length

60 mm

1

Temperature range

-20...40°C

52T

Options

ATEX EX 2 GDc	0078	Special scaling	9704
Case and ring 1.4404 (316L)	0110	Customer logo creation	9710
Dampening grease	0581	Technical inscription	9711
laminated safety glass	0751	2.1 Certificate	Q001
Acrylic glass	0752	2.2 Certificate	Q002
Polycarbonate	0753	3.1 Material certificate	Q003
Filling with silicone oil	0776	3.1 calib. certif. 3 points	Q006
Immersion length special	9003	3.1 calib. certif. 5 points	Q007
red mark	9700		