

Gas filled thermometers for chemical applications



Application

For corrosive media. Meets exacting measuring demands, e.g. in chemical, process technology and food industry applications.

Type

D4

Nominal size

100 – 160

Measuring principle

Pressurised gas filling

Accuracy class

1 (EN 13190)

Ranges °C

-20/60, 0/60, 0/120, 0/160, 0/200, 0/300, 0/400, 0/500

Working temperature

Continuous: full scale value

Short-term: 1.1 x full scale value

Operating pressure at thermowell

Max. 10 bar (up to 300 °C)

Protection

IP 65 (EN 60529)

Standard version

Connection

Stem stainless steel 1.4541, 100 x 10 mm, plain

Mounting position

Centre back or bottom, with joint

Dial

Aluminium, white
Dial marking black

Pointer

Aluminium, black

Zero correction

At side of housing

Movement

Brass

Housing

Stainless steel 1.4301

Bayonet type bezel

Stainless steel 1.4301

Front glass

Instrument glass

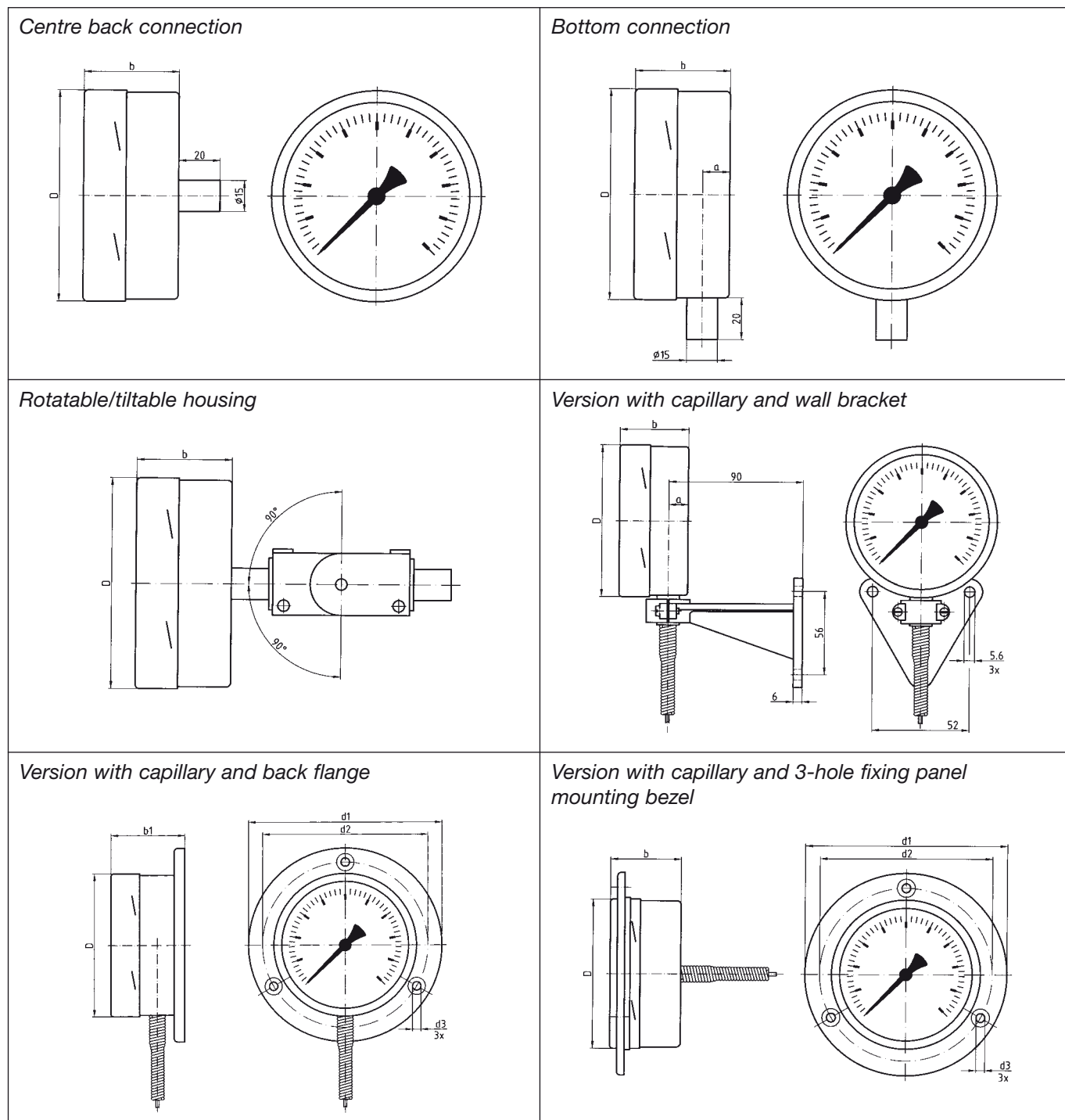
Options

- Rotatable/tiltable housing
- Thermowell G¹/₂B, stainless steel 1.4541
- Grooved nut connection according to DIN 11851
- Nominal size 250
- Other connection designs
- Other ranges
- Special scales
- Glycerine filling (type D8)
- 3-hole fixing panel mounting bezel
- Back flange
- Capillary (stainless steel 1.4541)
- Special materials
- Electrical contacts

Gas filled thermometers

Version for chemical applications type D4 – NG 100/160

Housing types and dimensions





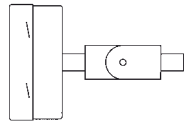
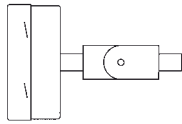


Dimensions (mm)

Nominal size (NG)	a	b	b1	Ø D	Ø d1	Ø d2	Ø d3		
100	13	45	51	101	132	116	5.5		
160	13	45	51	161	196	178	6		
250	13	55	57	252	285	270	6		

Gas filled thermometers for chemical applications

DG: H

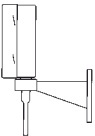
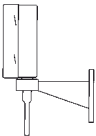


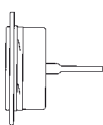
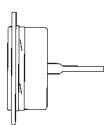
Type	FTh 100 Ch D412	FTh 160 Ch D412	FTh 100 Ch D402	FTh 160 Ch D402	FTh 100 Ch D482	FTh 160 Ch D482
Version						
Housing-Ø	100	160	100	160	100	160
Housing	Stainless steel 1.4301 with bayonet type bezel, instrument front glass					
Stem	Stainless steel 1.4541, 100 x 10 mm					
Connection	Plain stem (without thermowell)*					
Filling	Pressurised gas filling					
Accuracy class	Class 1 according to EN 13190					
					Rotatable/tiltable housing	
Range	-20/+60 °C	-20/+60 °C	-20/+60 °C	-20/+60 °C	-20/+60 °C	-20/+60 °C
	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
	64341412	64343412	64341402	64343402	64341482	64343482
Range	0/60 °C	0/60 °C	0/60 °C	0/60 °C	0/60 °C	0/60 °C
	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
	64361412	64363412	64361402	64363402	64361482	64363482
Range	0/120 °C	0/120 °C	0/120 °C	0/120 °C	0/120 °C	0/120 °C
	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
	64373412	64375412	64373402	64375402	64373482	64375482
Range	0/160 °C	0/160 °C	0/160 °C	0/160 °C	0/160 °C	0/160 °C
	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
	1 64377412	64379412	64377402	64379402	64377482	64379482
Range	0/200 °C	0/200 °C	0/200 °C	0/200 °C	0/200 °C	0/200 °C
	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
	1 64381412	64383412	64381402	64383402	64381482	64383482
Range	0/300 °C	0/300 °C	0/300 °C	0/300 °C	0/300 °C	0/300 °C
	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
	64389412	64391412	64389402	64391402	64389482	64391482
Range	0/400 °C	0/400 °C	0/400 °C	0/400 °C	0/400 °C	0/400 °C
	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
	64397412	64399412	64397402	64399402	64397482	64399482
Range	0/500 °C	0/500 °C	0/500 °C	0/500 °C	0/500 °C	0/500 °C
	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
	64401412	64403412	64401402	64403402	64401482	64403482

*Refer to pages 199/200 for other connection types.

Refer to pages 200–202 for options and additional costs.

Gas filled thermometers for chemical applications

DG: H

Type	FTh 100 Ch D442	FTh 160 Ch D442	FTh 100 Ch D472	FTh 160 Ch D472	FTh 100 Ch D432	FTh 160 Ch D432
Version						
Housing-Ø	100	160	100	160	100	160
Housing	Stainless steel 1.4301 with bayonet type bezel, instrument front glass					
Stem	Stainless steel 1.4541, 100 x 10 mm					
Connection	Plain stem (without thermowell)*					
Filling	Pressurised gas filling					
Capillary	Stainless steel 1.4541, 1 metre					
Mounting	Bracket for wall mounting		Back flange		3-hole fixing panel mounting bezel 1.4301	
Accuracy class	Class 1 according to EN 13190					
Range	-20/+60 °C	-20/+60 °C	-20/+60 °C	-20/+60 °C	-20/+60 °C	-20/+60 °C
	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
	64341442	64343442	64341472	64343472	64341432	64343432
Range	0/60 °C	0/60 °C	0/60 °C	0/60 °C	0/60 °C	0/60 °C
	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
	64361442	64363442	64361472	64363472	64361432	64363432
Range	0/120 °C	0/120 °C	0/120 °C	0/120 °C	0/120 °C	0/120 °C
	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
	64373442	64375442	64373472	64375472	64373432	64375432
Range	0/160 °C	0/160 °C	0/160 °C	0/160 °C	0/160 °C	0/160 °C
	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
	64377442	64379442	64377472	64379472	64377432	64379432
Range	0/200 °C	0/200 °C	0/200 °C	0/200 °C	0/200 °C	0/200 °C
	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
	64381442	64383442	64381472	64383472	64381432	64383432
Range	0/300 °C	0/300 °C	0/300 °C	0/300 °C	0/300 °C	0/300 °C
	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
	64389442	64391442	64389472	64391472	64389432	64391432
Range	0/400 °C	0/400 °C	0/400 °C	0/400 °C	0/400 °C	0/400 °C
	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
	64397442	64399442	64397472	64399472	64397432	64399432
Range	0/500 °C	0/500 °C	0/500 °C	0/500 °C	0/500 °C	0/500 °C
	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
	64401442	64403442	64401472	64403472	64401432	64403432

*Refer to pages 199/200 for other connection types.
Refer to pages 200–202 for options and additional costs.