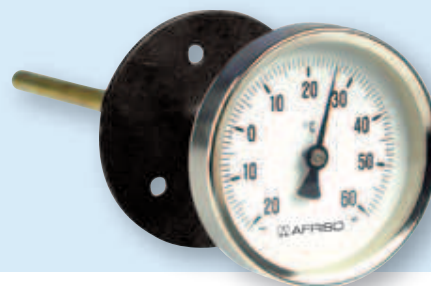


Bimetal thermometers for industrial applications

Bimetal air duct thermometers



Technical specifications

Bimetal thermometers for industrial applications

Mechanical engineering, plant engineering, pipelines, boilers, heating technology

Type
D2

Nominal size
63 – 80 – 100 – 160

Measuring element
Bimetal helix

Accuracy class
1 (EN 13190)

Ranges °C
-20/+60, 0/60, 0/120, 0/160

Working temperature
Full scale value

Operating pressure at thermowell
Max. 6 bar

Degree of protection
IP 41 (EN 60529)

12

Standard version

Connection
Stem brass, Ø 9 mm
Thermowell G½B, brass, removable

Mounting position
NG 63 – 80 – 100 – 160 centre back
NG 63 – 80 – 100 – 160 bottom

Dial
Aluminium, white, dial marking black

Pointer
Aluminium, black

Housing
Sheet steel galvanised

Push on bezel
Sheet steel nickel-plated

Window
Instrument-grade glass

Options

- Other connection types
- Other ranges
- Other stem lengths

Bimetal air duct thermometers

Air conditioning, ventilation

Type
D2

Nominal size
63 – 80 – 100

Measuring element
Bimetal helix

Accuracy class
2 (EN 13190)

Ranges °C
-30/+50, -20/+60, -20/+40, 0/60

Working temperature
Full scale value

Degree of protection
IP 41 (EN 60529)

Connection
Stem brass, Ø 9 mm, mounting flange, plastic Ø 60 mm, or back flange, steel

Mounting position
NG 63 – 80 – 100 centre back

Dial
Aluminium, white, dial marking black

Pointer
Plastic, black

Housing
Sheet steel galvanised

Push on bezel
Sheet steel nickel-plated

Window
Plastic

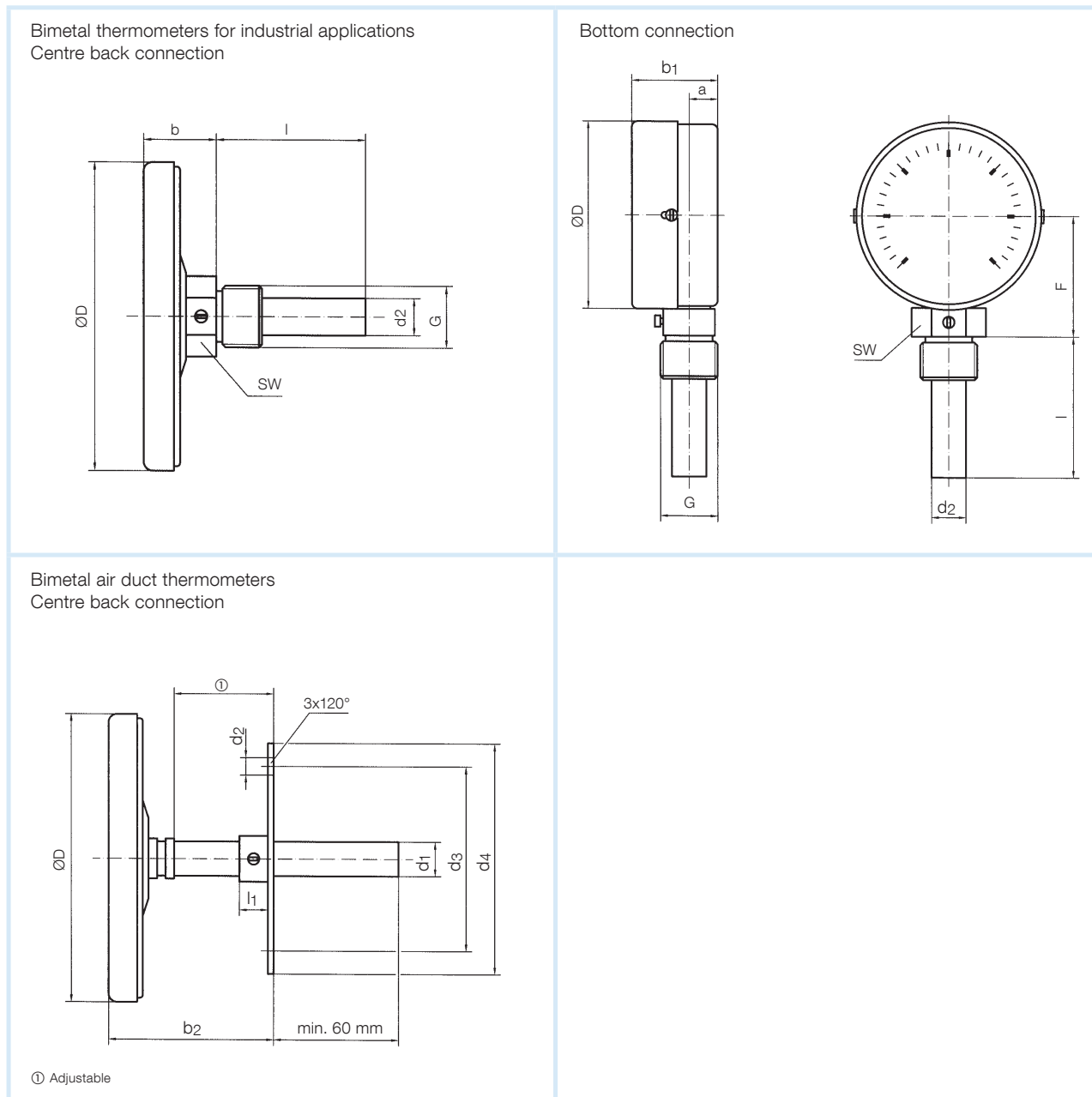
- Other ranges
- Other stem lengths
- Accuracy class 1
- Steel flange Ø 40/80 mm



See page 490 for prices.

Bimetal thermometers for industrial applications/ Bimetal air duct thermometers

Housing types and dimensions (mm)



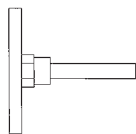
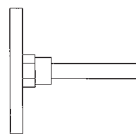
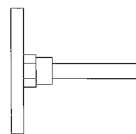
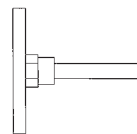
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Dimensions (mm)

Nominal size (NG)	a	b	b1	b2	D	d1	d2	d3	d4	F	G	l	l1	SW
63	10	24	34	Adjustable	63	9	3.6	51	60	43.5	G½B	40	10	22
80	10	24	36		80	9	3.6	51	60	52	G½B	63	10	22
100	10	26	36		100	9	3.6	51	60	62	G½B	100	10	22
160	-	32	37		160	-	-	-	-	92	G½B	150	-	22

Bimetal thermometers for industrial applications

DG: H

Type	BiTh 63 I D211	BiTh 80 I D211	BiTh 100 I D211	BiTh 160 I D211
Version				
Housing Ø	63	80	100	160
Housing	Sheet steel galvanised, push on bezel nickel-plated, instrument-grade glass window			
Stem	Brass, Ø 9 mm			
Connection	Thermowell G½B, brass, Ø 12 mm outside, removable			
Accuracy class	Class 1 as per EN 13190			
Range	-20/+60 °C	-20/+60 °C	-20/+60 °C	-20/+60 °C
Stem length	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
40 mm	65106211	65206211	65306211	65406211
63 mm	65107211	65207211	65307211	65407211
100 mm	65108211	65208211	65308211	65408211
150 mm	65109211	65209211	65309211	65409211
Range	0/60 °C	0/60 °C	0/60 °C	0/60 °C
Stem length	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
40 mm	65131211	65231211	65331211	65431211
63 mm	65132211	65232211	65332211	65432211
100 mm	65133211	65233211	65333211	65433211
150 mm	65134211	65234211	65334211	65434211
Range	0/120 °C	0/120 °C	0/120 °C	0/120 °C
Stem length	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
40 mm	65146211	65246211	65346211	65446211
63 mm	65147211	65247211	65347211	65447211
100 mm	65148211	65248211	65348211	65448211
150 mm	65149211	65249211	65349211	65449211
Range	0/160 °C	0/160 °C	0/160 °C	0/160 °C
Stem length	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
40 mm	65151211	65251211	65351211	65451211
63 mm	65152211	65252211	65352211	65452211
100 mm	65153211	65253211	65353211	65453211
150 mm	65154211	65254211	65354211	65454211

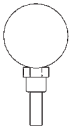
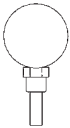


12

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See page 502 for options/extra charges.

Bimetal thermometers for industrial applications

DG: H

Type	BiTh 63 I D201	BiTh 80 I D201	BiTh 100 I D201	BiTh 160 I D201
Version				
Housing Ø	63	80	100	160
Housing	Sheet steel galvanised, push on bezel nickel-plated, instrument-grade glass window			
Stem	Brass, Ø 9 mm			
Connection	Thermowell G½B, brass, Ø 12 mm outside, removable			
Accuracy class	Class 1 as per EN 13190			
Range	-20/+60 °C	-20/+60 °C	-20/+60 °C	-20/+60 °C
Stem length	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
40 mm	65106201	65206201	65306201	65406201
63 mm	65107201	65207201	65307201	65407201
100 mm	65108201	65208201	65308201	65408201
150 mm	65109201	65209201	65309201	65409201
Range	0/60 °C	0/60 °C	0/60 °C	0/60 °C
Stem length	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
40 mm	65131201	65231201	65331201	65431201
63 mm	65132201	65232201	65332201	65432201
100 mm	65133201	65233201	65333201	65433201
150 mm	65134201	65234201	65334201	65434201
Range	0/120 °C	0/120 °C	0/120 °C	0/120 °C
Stem length	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
40 mm	65146201	65246201	65346201	65446201
63 mm	65147201	65247201	65347201	65447201
100 mm	65148201	65248201	65348201	65448201
150 mm	65149201	65249201	65349201	65449201
Range	0/160 °C	0/160 °C	0/160 °C	0/160 °C
Stem length	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
40 mm	65151201	65251201	65351201	65451201
63 mm	65152201	65252201	65352201	65452201
100 mm	65153201	65253201	65353201	65453201
150 mm	65154201	65254201	65354201	65454201

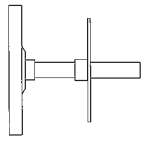
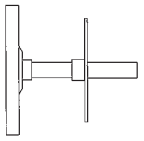
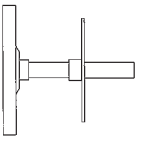
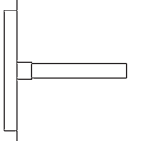
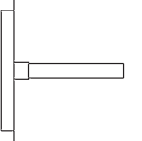
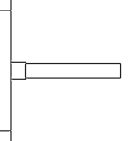
12



See page 502 for options/extra charges.

Bimetal air duct thermometers

DG: H

Type	BiTh 63 LKF D211	BiTh 80 LKF D211	BiTh 100 LKF D211	BiTh 63 LKB D271	BiTh 80 LKB D271	BiTh 100 LKB D271
Version						
Housing Ø	63	80	100	63	80	100
Housing	Sheet steel galvanised, push on bezel nickel-plated, plastic window			Sheet steel galvanised, push on bezel nickel-plated, with back flange Instrument-grade glass window		
Stem	Brass, Ø 9 mm					
Connection	Flange, plastic, Ø 60 mm			plain		
Accuracy class	Class 2 as per EN 13190					
Range	-30/+50 °C	-30/+50 °C	-30/+50 °C	-30/+50 °C	-30/+50 °C	-30/+50 °C
Stem length	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
100 mm	65613211	65713211	65813211	65613271	65713271	65813271
150 mm	65614211	65714211	65814211	65614271	65714271	65814271
200 mm	65615211	65715211	65815211	65615271	65715271	65815271
Range	-20/+60 °C	-20/+60 °C	-20/+60 °C	-20/+60 °C	-20/+60 °C	-20/+60 °C
Stem length	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
100 mm	65608211	65708211	65808211	65608271	65708271	65808271
150 mm	65609211	65709211	65809211	65609271	65709271	65809271
200 mm	65610211	65710211	65810211	65610271	65710271	65810271
Range	-20/+40 °C	-20/+40 °C	-20/+40 °C	-20/+40 °C	-20/+40 °C	-20/+40 °C
Stem length	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
100 mm	65623211	65723211	65823211	65623271	65723271	65823271
150 mm	65624211	65724211	65824211	65624271	65724271	65824271
200 mm	65625211	65725211	65825211	65625271	65725271	65825271
Range	0/60 °C	0/60 °C	0/60 °C	0/60 °C	0/60 °C	0/60 °C
Stem length	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
100 mm	65633211	65733211	65833211	65633271	65733271	65833271
150 mm	65634211	65734211	65834211	65634271	65734271	65834271
200 mm	65635211	65735211	65835211	65635271	65735271	65835271

12

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See page 502 for options/extra charges.

Bimetal stainless steel thermometers/ Bimetal thermometers for chemical applications



Pointer adjustable
in case of "plain"
connection



Bimetal stainless steel thermometers

Application For corrosive media. Suitable for a great variety of industrial applications.

Technical specifications

Type: D3
Nominal size: 63 – 80 – 100
Measuring element: Bimetal helix
Accuracy class: 1 (EN 13190)
Ranges °C
 -20/+60, 0/60, 0/120, 0/160
Working temperature
 full scale value
Operating pressure at thermowell
 Max. 6 bar
Degree of protection: IP 43 (EN 60529)

Standard version

Connection
 Stem stainless steel 316 L, Ø 8 mm, plain
Mounting position
 NG 63 – 80 – 100 centre back
 NG 63 – 100 bottom
Dial
 Aluminium, white – Dial marking black
Pointer: Aluminium, black
Housing and push on bezel
 Stainless steel 304
Window: Instrument-grade glass

Options

- Thermowell G½B, stainless steel 316 Ti
- Other connection designs
- Other ranges
- Other stem lengths

Bimetal thermometers for chemical applications

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

Type: D4

Nominal size: 63 – 100 – 160
Measuring element: Bimetal helix
Accuracy class: 1 (EN 13190)

Ranges °C
 -20/+60, 0/60, 0/120, 0/160

Working temperature
 Continuous: Full scale value
 Short-term: 1.1 x full scale value

Operating pressure at thermowell
 Max. 6 bar

Degree of protection: IP 65 (EN 60529)

Connection
 Stem stainless steel 316 Ti, Ø 8 mm, plain, closed

Mounting position
 NG 63 – 100 – 160 centre back
 NG 63 – 100 – 160 bottom

Dial
 Aluminium, white
 Dial marking black

Pointer: Aluminium, black

Housing: Stainless steel 304

Bayonet type bezel: Stainless steel 304

Window: Instrument-grade glass

Options

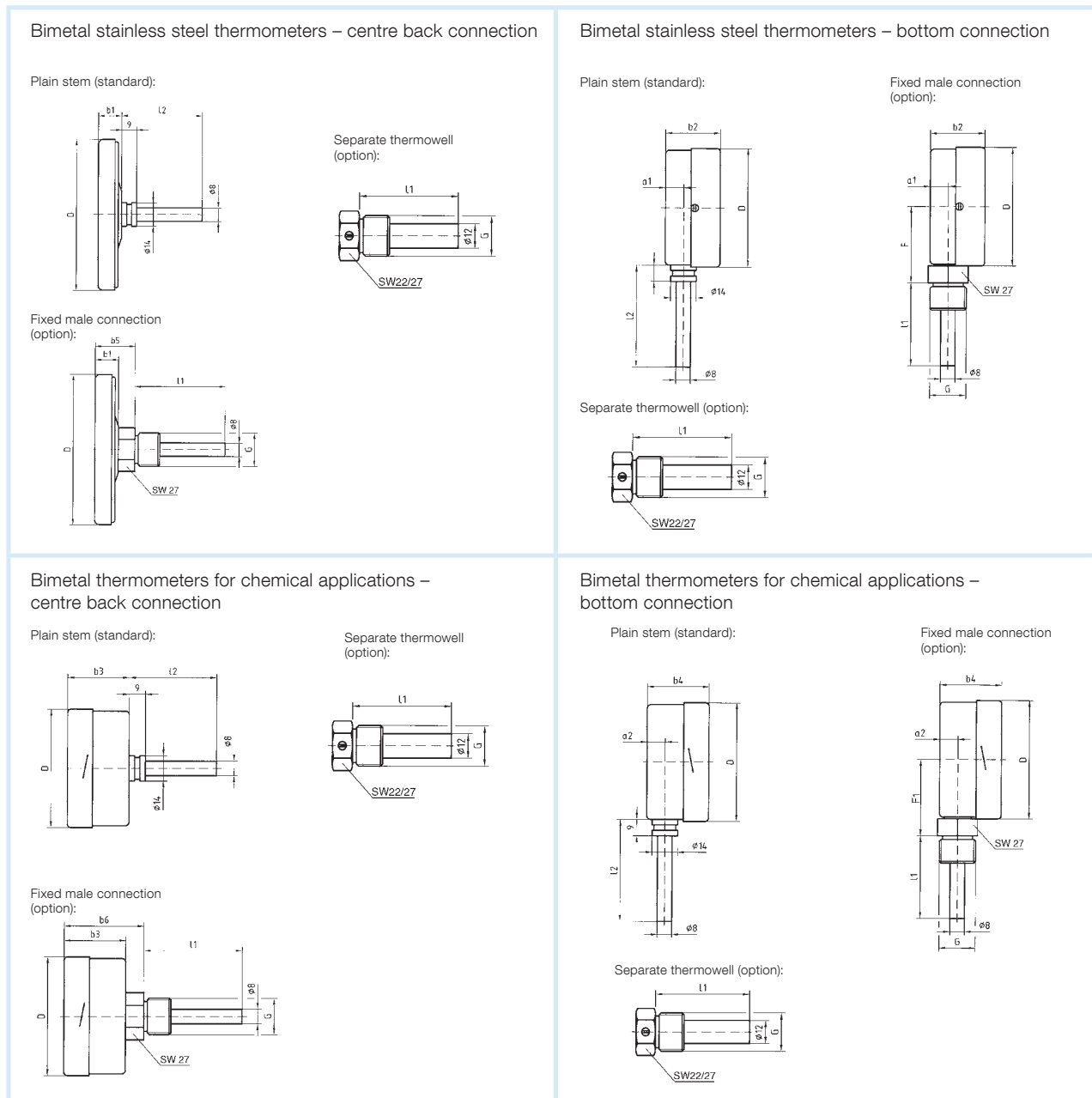
- Thermowell G½B, stainless steel 316 Ti
- Grooved nut connection as per DIN 11851
- Other connection designs
- Other ranges
- Other stem lengths
- Laminated safety glass window
- Glycerine filling
- Every angle version (type D4 only)
- 3-hole fixing, panel mounting bezel
- Back flange
- Special materials
- Electrical contacts



See page 495 for prices.

Bimetal stainless steel thermometers/ Bimetal thermometers for chemical applications

Housing types and dimensions (mm)



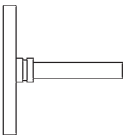
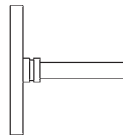
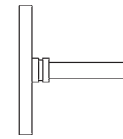
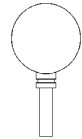

12

Dimensions (mm)

Nominal size (NG)	D	a1	a2	b1	b2	b3	b4	b5	b6	F	F1	G	l1	l2
63	63	10	15.5	15	34	32	45	27	62	46.5	58.5	G $\frac{1}{2}$ B	40	49
80	80	-	-	15	-	-	-	28	-	-	-	G $\frac{1}{2}$ B	63	67
100	100	10	17.5	17	36	27.5	49.5	29	57.5	65	77.5	G $\frac{1}{2}$ B	100	104
160	160	10	15.5	18	-	34	48	32	64	95	107.5	G $\frac{1}{2}$ B	150	154
													200	204

Bimetal stainless steel thermometers

DG: H

Type	BiTh 63 E D312	BiTh 80 E D312	BiTh 100 E D312	BiTh 63 E D302	BiTh 100 E D302
Version					
Housing Ø	63	80	100	63	100
Housing	Stainless steel 304 with push on bezel 304, instrument-grade glass window				
Stem	Stainless steel 316, Ø 8 mm				
Connection	Plain stem (without thermowell)				
Accuracy class	Class 1 as per EN 13190				
Range	-20/+60 °C	-20/+60 °C	-20/+60 °C	-20/+60 °C	-20/+60 °C
For thermowell with length L1	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
63 mm	66107312	66207312	66307312	6610730	66307302
100 mm	66108312	66208312	66308312	66108302	66308302
150 mm	66109312	66209312	66309312	66109302	66309302
200 mm	66110312	66210312	66310312	66110302	66310302
Range	0/60 °C	0/60 °C	0/60 °C	0/60 °C	0/60 °C
For thermowell with length L1	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
63 mm	66132312	66232312	66332312	66132302	66332302
100 mm	66133312	66233312	66333312	66133302	66333302
150 mm	66134312	66234312	66334312	66134302	66334302
200 mm	66135312	66235312	66335312	66135302	66335302
Range	0/120 °C	0/120 °C	0/120 °C	0/120 °C	0/120 °C
For thermowell with length L1	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
40 mm	66146312	66246312	66346312	---	---
63 mm	66147312	66247312	66347312	66147302	66347302
100 mm	66148312	66248312	66348312	66148302	66348302
150 mm	66149312	66249312	66349312	66149302	66349302
200 mm	66150312	66250312	66350312	66150302	66350302
Range	0/160 °C	0/160 °C	0/160 °C	0/160 °C	0/160 °C
For thermowell with length L1	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
63 mm	66152312	66252312	6635212	66152302	66352302
100 mm	66153312	66253312	66353312	66153302	66353302
150 mm	66154312	66254312	66354312	66154302	66354302
200 mm	66155312	66255312	66355312	66155302	66355302

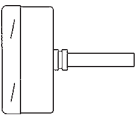
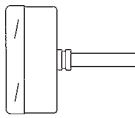
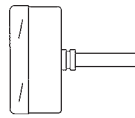



12



* See page 502 for other connection types, options/extra charges.

Bimetal thermometers for chemical applications

DG: H

Type	BiTh 63 Ch D412	BiTh 100 Ch D412	BiTh 160 Ch D412	BiTh 63 Ch D402	BiTh 100 Ch D402	BiTh 160 Ch D402
Version						
Housing Ø	63	100	160	63	100	160
Housing	Stainless steel 304 with bayonet type bezel, instrument-grade glass window					
Stem	Stainless steel 316, Ø 8 mm					
Connection	Plain stem (without thermowell)*					
Accuracy class	Class 1 as per EN 13190					
Range	-20/+60 °C	-20/+60 °C	-20/+60 °C	-20/+60 °C	-20/+60 °C	-20/+60 °C
For thermowell with length L1	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
63 mm	66607412	66807412	66907412	66607402	66807402	66907402
100 mm	66608412	66808412	66908412	66608402	66808402	66908402
150 mm	66609412	66809412	66909412	66609402	66809402	66909402
200 mm	66610412	66810412	66910412	66610402	66810402	66910402
Range	0/60 °C	0/60 °C	0/60 °C	0/60 °C	0/60 °C	0/60 °C
For thermowell with length L1	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
63 mm	66632412	66832412	66932412	66632402	66832402	66932402
100 mm	66633412	66833412	66933412	66633402	66833402	66933402
150 mm	66634412	66834412	66934412	66634402	66834402	66934402
200 mm	66635412	66835412	66935412	66635402	66835402	66935402
Range	0/120 °C	0/120 °C	0/120 °C	0/120 °C	0/120 °C	0/120 °C
For thermowell with length L1	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
63 mm	66647412	66847412	66947412	66647402	66847402	66947402
100 mm	66648412	66848412	66948412	66648402	66848402	66948402
150 mm	66649412	66849412	66949412	66649402	66849402	66949402
200 mm	66650412	66850412	66950412	66650402	66850402	66950402
Range	0/160 °C	0/160 °C	0/160 °C	0/160 °C	0/160 °C	0/160 °C
For thermowell with length L1	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.	Price € Part no.
63 mm	66652412	66852412	66952412	66652402	66852402	66952402
100 mm	66653412	66853412	66953412	66653402	66853402	66953402
150 mm	66654412	66854412	66954412	66654402	66854402	66954402
200 mm	66655412	66855412	66955412	66655402	66855402	66955402

12



* See page 502 for other connection types, options/extra charges.