

# All stainless steel bimetal thermometer

## Model A and E

Nominal size 3", 5", 100 mm or 160 mm

Accuracy: Class 1,0 to EN (100 mm and 160 mm)  
Grade A (1 %) according ASME (3" and 5")

### Features

- Rugged stainless steel construction
- Fast response
- Protection IP65
- Antiparallax Maxivision® dial (model E)
- External zero adjustment (model E)
- Dry or liquid filled
- Silicone damped coil

### Ranges

-50 ... 50 °C up to 0 ... 500 °C

-80 ... 120 °F up to 200 ... 1000 °F

### Applications

Chemical and petrochemical industry

Machine and apparatus construction

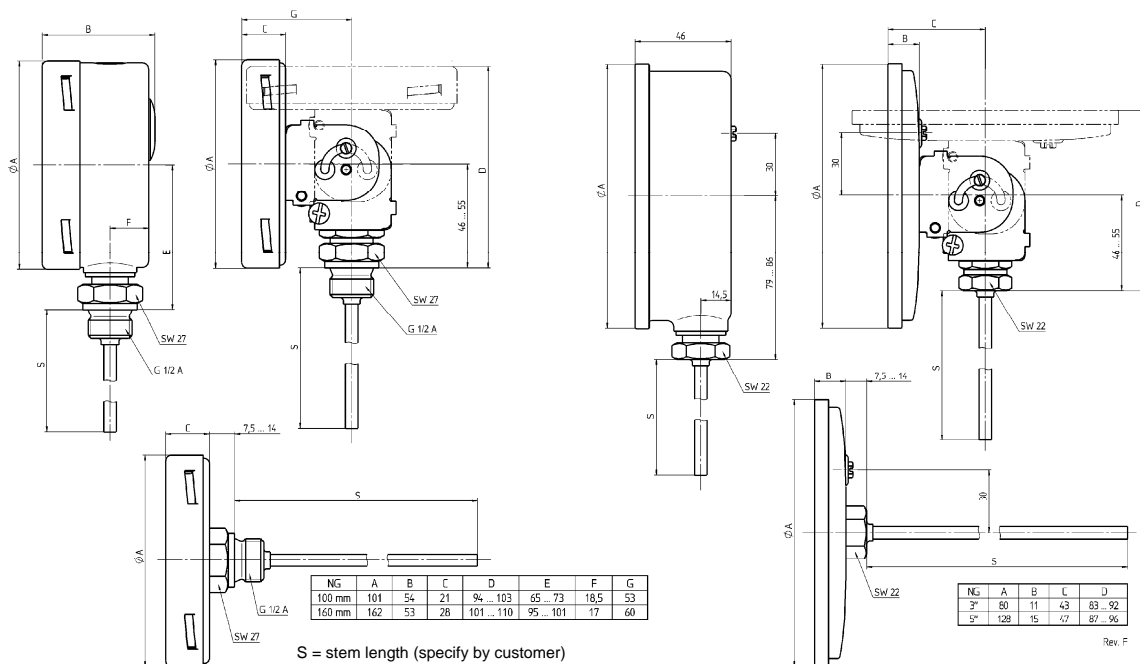
Food and beverage industry

Pulp and paper industry



Technical specification	AM, AE, AI, A3B						EM, EE, EI, E3B					
	100 mm			160 mm			3" (80 mm)			5" (125 mm)		
Construction	Cylindrical case with bayonet ring						Cylindrical case with crimp ring, hermetically sealed and external adjustment					
Measuring principle	Bimetallic coil											
Range [°C]	0/50 0/60 0/80 0/100 0/120 0/150 0/160 0/200 0/250 0/300 0/400 0/500 10/150 50/300 50/450 100/500 -10/50 -10/110 -20/40 -20/60 -20/160 -20/180 -25/25 -30/50 -30/70 -40/40 -40/60 -40/160 -50/50											
Temperature limits for ranges	< 120 °C			≥ 120 °C and < 290°C			≥ 290 °C					
Max. process overtemperature	100 % of span			50 % of span			max. 425 °C for continuous service					
Stem	Diameter 6 mm, 8 mm, ¼" (6,4 mm), 3/8" (9,6 mm) Length 63 ... 1000 mm, minimum length depends on range											
Process connection	Plain G ½ A male, G ½ female, ½ NPT male or ½ NPT female G ¾ A male, G ¾ female, ¾ NPT male or ¾ NPT female G 1 A male, G 1 female, 1 NPT male or 1 NPT female, others on request Fixed, adjustable or with swivel nut											
Connection location	Back, lower (not for dial size 3") and every angle (rotatable)											
Material	Connection Stainless steel 316Ti (1.4571) Stem Stainless steel 316Ti (1.4571) Case/ring Stainless steel 304 (1.4301), optional 316L (1.4404) for model A Window Instrument glass, optional laminated safety glass or acrylic glass Dial Aluminum, black markings on white background   Aluminum, black markings on white background, antiparallax, Maxivision® scale Pointer Aluminum, black											
Accuracy	Class 1 (dry) and class 2 (liquid filled) according EN 13190						1 % ASME B40.3, Grade A					
Protection according EN 60 529/IEC 529	IP65											
Filling liquids	Silicone, not for lower connection, standard acrylic glass, Maximum range up to 300 °C (ambient temperature maximum 65 °C)											
Weight [kg]	Back Lower Every angle Back Lower Every angle Back Lower Every angle Back Lower Every angle											
Connection location	Back Lower Every angle Back Lower Every angle Back Lower Every angle Back Lower Every angle											
Dry	0,35 0,55 0,55 0,7 0,9 0,9 0,2 --- 0,4 0,4 0,6 0,6											
Filled	0,6 --- 0,8 1,0 --- 1,2 0,6 --- 0,7 0,7 --- 0,9											
Accessories, options	Thermowells, dual scale, calibration certification											

## General dimensions [mm]



0/ 100	°F
0/ 150 <sup>1)</sup>	
0/ 200	
0/ 250	
0/ 300 <sup>1)</sup>	
0/ 350	
0/ 500 <sup>1)</sup>	
20/ 120 <sup>1)</sup>	
30/ 130 <sup>1)</sup>	
30/ 240 <sup>1)</sup>	
50/ 300	
50/ 400	
50/ 550 <sup>1)</sup>	
80/ 180	
100/ 800	
160/ 360	
170/ 270	
200/ 400	
200/ 700 <sup>1)</sup>	
200/ 1000 <sup>1)</sup>	
-40/ 120	
-40/ 160	
-20/ 120 <sup>1)</sup>	
-80/ 120	
-10/ 100	

<sup>1)</sup> minimum stem length 100 mm

## Order information

Size	Type and stem execution	Filling	Process connection	Connection orientation	Stem length	Range	Engineering unit	Options		
<b>(100)</b> 100 mm	<b>Metric housing</b> with bayonet ring (IP65)	<b>(=)</b> Standard (no filling)	<b>(040)</b> Plain	<b>(L)</b> Lower <sup>1)</sup>	<b>63 to 1000 mm</b>	0/ 50 <sup>1)</sup>	°C	<b>(NH)</b> Tagging wired		
<b>(160)</b> 160 mm	<b>(AM)</b> 6 mm <b>(AE)</b> 8 mm <b>(AI)</b> 1/4" (6,4 mm) <b>(A3B)</b> 3/8" (9,6 mm)	<b>(L)</b> Liquid filled with silicone max. up to 300 °C (not for lower connection, ambient temperature maximum 65 °C)	<b>(042)</b> Union outlet 1/2 NPT male <b>(060)</b> Fixed 1/2 NPT male <b>(061)</b> Fixed G 1/2 A male <b>(070)</b> Adjustable union 1/2 NPT male <b>(071)</b> Adjustable union G 1/2 A male <b>(072)</b> Adjustable union 3/4 NPT male <b>(074)</b> Adjustable union 1/2 NPT female <b>(080)</b> Swivel nut G 1/2 A male <b>(081)</b> Swivel nut G 1/2 female	<b>(R)</b> Back <b>(E)</b> Every angle		0/ 60 <sup>1)</sup> 0/ 80 <sup>1)</sup> 0/100 0/120 0/150 0/160 0/200 0/250 <sup>1)</sup> 0/300 <sup>1)</sup> 0/400 <sup>1)</sup> 0/500 <sup>1)</sup> 10/150 50/300 <sup>1)</sup> 50/450 <sup>1)</sup> 100/500 <sup>1)</sup> -10/ 50 <sup>1)</sup> -10/110 -20/ 40 <sup>1)</sup> -20/ 60 <sup>1)</sup> -20/160 -20/180 -25/ 25 <sup>1)</sup> -30/ 50 <sup>1)</sup> -30/ 70 -30/170 -40/ 40 <sup>1)</sup> -40/ 60 -40/100 -40/160 -50/ 50		<b>(DA)</b> Dial marking <b>(RT)</b> Stepped stem <b>(CS)</b> Dual scale <b>(PD)</b> Acrylic glass <b>(SG)</b> Safety glass <b>(SH)</b> Red set hand stationary <b>(YW)</b> 316L (1.4404) housing (not for lower housing and size 3")		
<b>(30)</b> 3" (80 mm)	<b>ANSI housing</b> hermetically sealed (IP65)							°F see table		
<b>(50)</b> 5" (125 mm)	<b>(EM)</b> 6 mm <b>(EE)</b> 8 mm <b>(EI)</b> 1/4" (6,4 mm) <b>(E3B)</b> 3/8" (9,6 mm)									
				<sup>1)</sup> not for dial size 3"		<sup>1)</sup> minimum stem length 100 mm				

## How to order

Size	Type and stem execution	Filling	Process connection	Connection orientation	Stem length	Range	Engineering unit	Option
50	EE	=	070	E	150	0/200	C	NH

## Ashcroft Instruments GmbH

Germany  
Max-Planck-Str. 1, D-52499 Baesweiler  
P.O. Box 11 20, D-52490 Baesweiler  
Tel.: +49 (0) 2401 808-0, Fax: +49 (0) 2401 808-125

France  
„206" ZA Le Mandinet Rue des Campanules  
F-77185 Lognes  
Tel.: +33 (0) 1 60 37 25 30, Fax: +33 (0) 1 60 37 25 39

Website: [www.ashcrofteurope.com](http://www.ashcrofteurope.com)

e-Mail: [sales@ashcrofteurope.com](mailto:sales@ashcrofteurope.com)

## United Kingdom

Unit 5 William James House  
Cowley Road, Cambridge CB4 0WX  
Tel.: +44 (0) 12 23 39 55 00, Fax: +44 (0) 12 23 39 55 01