

All stainless steel bimetal thermometer with stepped stem

Model ART and ERT

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

Accuracy: Class 1 according to EN 13190 (100 mm and 160 mm)
Grade A (1 %) according to ASME B40.200 (3" and 5")



Features

- Rugged all welded stainless steel construction
- Protection IP65 / IP66
- Optional ATEX approved $\text{CE} \text{ II 2 GD c Tx}^\circ\text{C IP66}$
- Maxivision® dial allows readability from any angle without parallax error (model ERT)
- External adjustment permits zero reset from outside the case
- Dry or liquid filled
- Silicone coil dampening provides vibration dampening and improves response time

Ranges

-50 ... 50 °C up to 0 ... 500 °C

-80 ... 120 °F up to 200 ... 1000 °F

Applications

Chemical and petrochemical industry

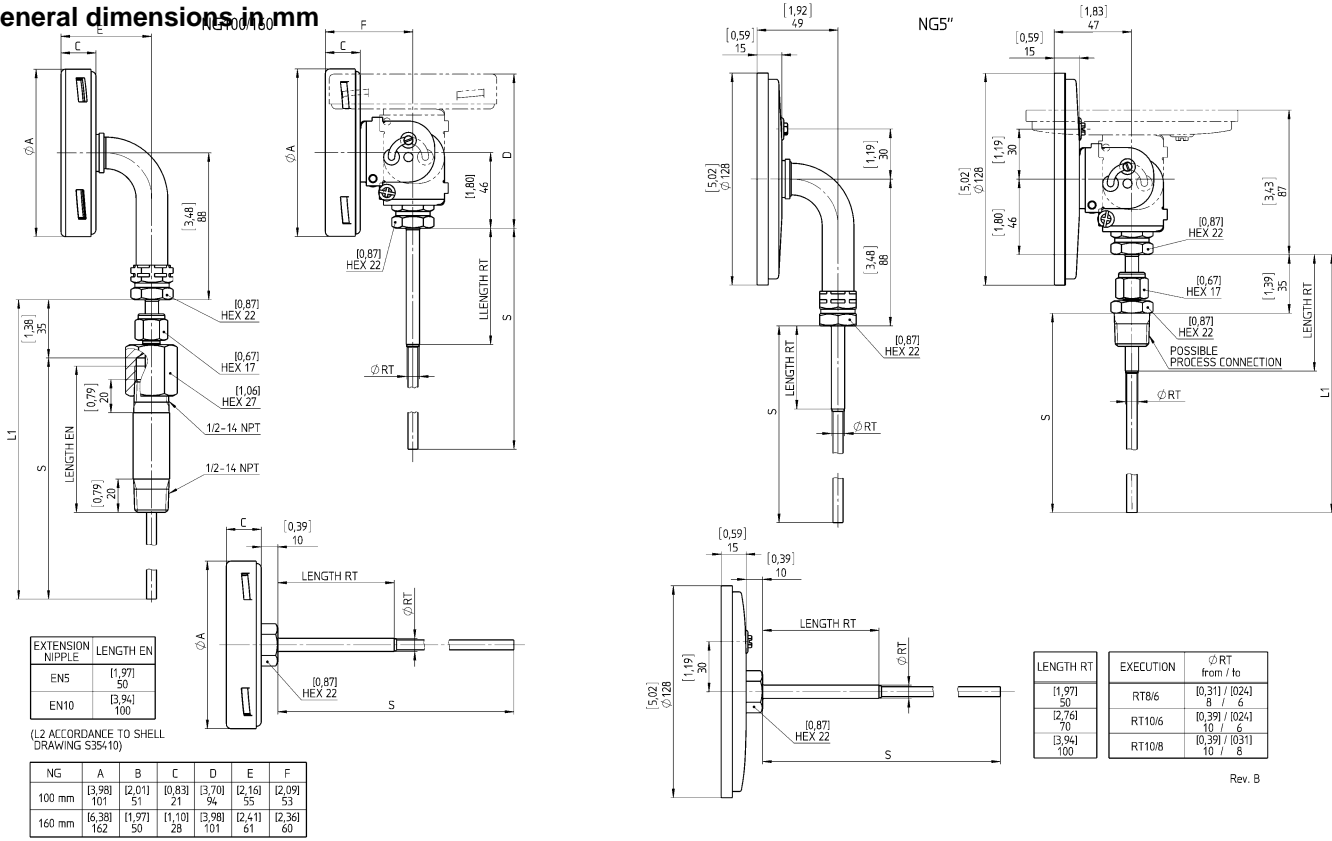
Machine and apparatus construction

Food and beverage industry

Pulp and paper industry

Technical specification	ART						ERT					
	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 in °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
Ranges in °F	10/150	50/300	50/450	100/500	-10/50	-10/110	-20/40	-20/60	-20/80	-20/120		
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					
Max. ambient temperature	94 °C with dry case, 65 °C with liquid filling											
Stem	Stepped stem 8/6 mm, 10/6 and 10/8 mm,											
Diameter	75 ... 1500 mm, minimum length below RT is 60 mm											
Length S	50, 70, 100 mm, other lengths on request											
Enlarged Length RT												
Process connection	Plain											
Adjustable union connection	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, 1 NPT male, others on request											
Connection location	Back, lower (not for dial size 3") and every angle (rotatable)											
Material	Stainless steel 316L (1.4404) or 1.4571 (316Ti)											
Connection	Stainless steel 316L (1.4404) or 1.4571 (316Ti)											
Stem	Stainless steel 304 (1.4301), optional 316L (1.4404) for most case styles											
Case/ring	Instrument glass, optional shatter proof glass or acrylic glass											
Window	Aluminum, black markings on white background						Aluminum, black markings on white background, anti parallax Maxivision® dial					
Dial												
Pointer	Aluminum, black											
Accuracy	Class 1 (dry) and class 2 (liquid filled) according EN 13190						Grade A (1 %) according to ASME B40.200 (former ASME B40.3)					
Protection according EN 60 529/IEC 529	IP66, IP65 for variation "external zero adjustment"						IP66					
Conformity according to RL 2014/34/EU appendix X for mechanical equipment in potential hazardous areas	Optional, Marking $\text{CE} \text{ II 2 GD c Tx}^\circ\text{C IP66}; \text{Ta } -20^\circ\text{C} \dots 60^\circ\text{C}$ File no. 35088073 at notified body 0044, TUV NORD CERT (only with shatter proof glass and protection IP66)											
Filling liquids	Silicone, not for lower connection, acrylic glass is standard, for ATEX approval shatter proof glass is standard; Maximum range up to 300 °C											
Weight in kg												
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	Thermowells must be used on all pressure or velocity applications, to protect the stem of thermometer from corrosion and physical damage, and to facilitate removal of the thermometer without disturbing the process.											

General dimensions in mm



Order information

Size	Type and stem execution	Filling	Process connection	Connection orientation	Stem length S	Range	Options
(100) 100 mm	(ART8/6) 8/6 mm	(=) Standard (no filling)	(040) Plain	(L) Lower	75 to 1500 mm	0/ 50 °F ¹⁾ 0/ 60 °F ¹⁾ 0/ 80 °F ¹⁾ 0/100 °F 0/120 °F 0/150 °F 0/160 °F 0/200 °F ¹⁾ 0/250 °F ¹⁾ 0/300 °F ¹⁾ 0/400 °F ¹⁾ 0/500 °F ¹⁾ 10/150 °F 50/300 °F ¹⁾ 50/450 °F ¹⁾ 100/500 °F ¹⁾ -10/ 50 °F ¹⁾ -10/110 °F ¹⁾ -20/ 40 °F ¹⁾ -20/ 60 °F ¹⁾ -20/180 °F ¹⁾ -25/ 25 °F ¹⁾ -30/ 50 °F ¹⁾ -30/ 70 °F ¹⁾ -30/170 °F ¹⁾ -40/ 40 °F ¹⁾ -40/ 60 °F ¹⁾ -40/100 °F ¹⁾ -40/160 °F ¹⁾ -50/ 50 °F ¹⁾	(NH) Stainless steel tag wired (DM) Dial marking (CS) Dual scale (PD) Acrylic glass (SG) Shatter proof glass (EA) External zero adjustment (only for type ART, not for ATEX)
(160) 160 mm EN 13190 type with bayonet ring	(ART10/6) 10/6 mm (ART10/8) 10/8 mm	(L) Liquid filled with silicone max. range 300 °C	(070) Adjustable union ½ NPT male (071) Adjustable union G ½ A male (072) Adjustable union ¾ NPT male (073) Adjustable union G ¾ male (074) Adjustable union ½ NPT female (075) Adjustable union ¾ NPT female (078) Adjustable union G ½ female (079) Adjustable union G ¾ female	(R) Back (E) Every angle		0/100 °F 0/150 °F ¹⁾ 0/200 °F 0/250 °F 0/300 °F ¹⁾ 0/350 °F 0/500 °F ¹⁾ 20/120 °F ¹⁾ 30/130 °F ¹⁾ 30/240 °F ¹⁾ 50/300 °F 50/400 °F 50/550 °F ¹⁾ 80/180 °F 100/800 °F 160/360 °F 170/270 °F 200/400 °F 200/700 °F ¹⁾ 200/1000 °F ¹⁾ -40/120 °F -40/160 °F -20/120 °F ¹⁾ -80/120 °F -10/100 °F	(EN5) Extension nipple 50 mm (YW) 316L (1.4404) housing (not for lower connection or dial size 3") (C4) Individual calibration certificate (ATEX) ATEX approval
(30) 3" (80 mm)	ASME B40.200 type hermetically sealed						
(50) 5" (125 mm)	(ERT8/6) 8/6 mm (ERT10/6) 10/6 mm (ERT10/8) 10/8 mm						

Order example

Size	Type and stem execution	Filling	Process connection	Connection orientation	Stem length S	Range	Engineering unit	Length L1	Length RT	Options
50	ERT10/6	=	074	E	365	0/200	C	400	70	EN10

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