

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
- 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

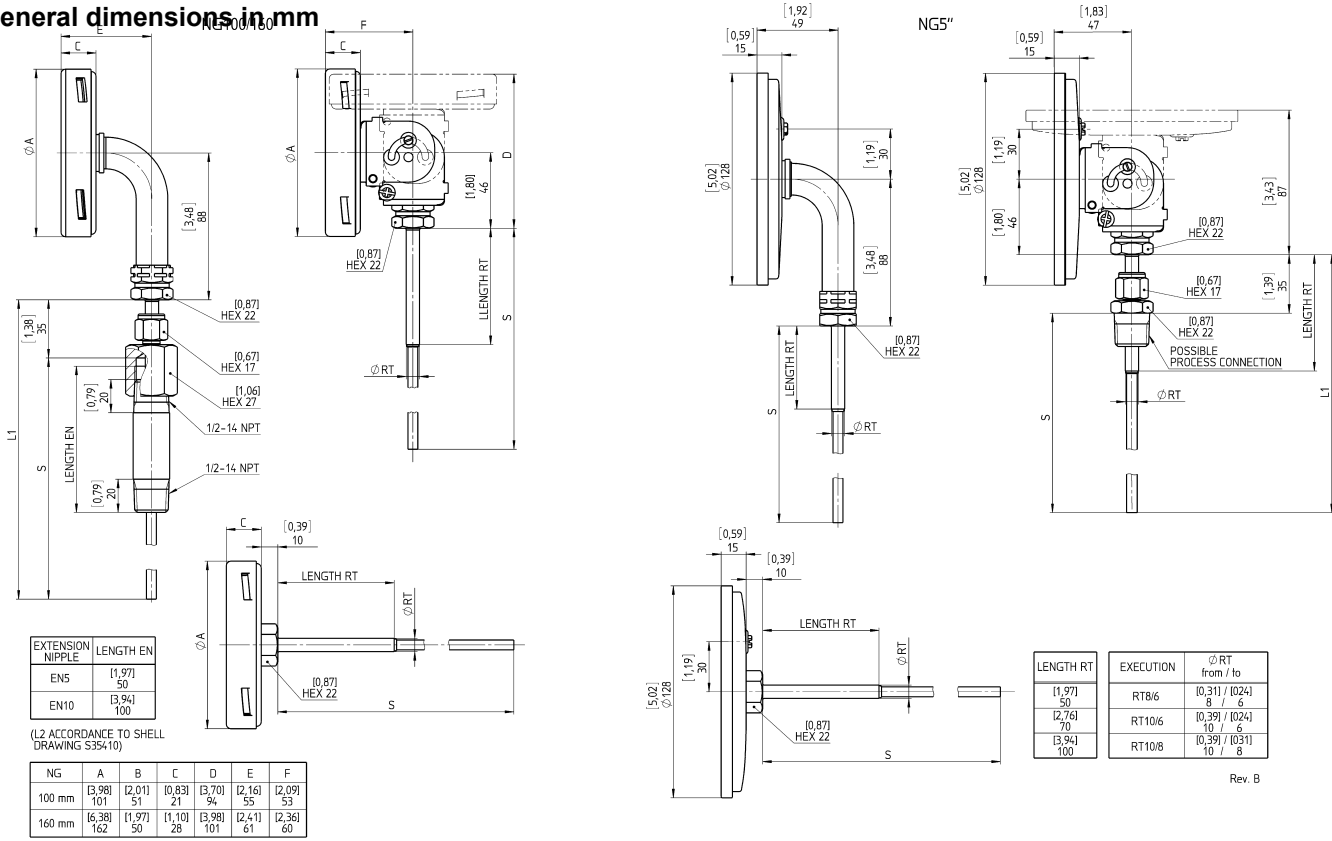
Chemical and petrochemical industry
Machine and apparatus construction
Food and beverage industry
Pulp and paper industry



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 10/150 50/300 50/450 100/500 -10/50 -10/110 -20/40 -20/60 -20/80 -20/120 -20/180 -25/25 -30/50 -30/70 -40/40 -40/60 -40/160 -50/50											
Ranges in °F	0/100 0/150 0/200 0/250 0/300 0/350 0/500 20/120 30/130 30/240 50/300 50/400 50/550 80/180 100/800 160/360 170/270 200/400 200/700 200/1000 -40/120 -40/160 -20/120 -80/120 -10/100											
Temperature limits for ranges	< 120 °C ⁽¹⁾ ≥ 120 °C and < 290°C ⁽¹⁾ ≥ 290 °C ⁽¹⁾ ⁽¹⁾ Intermittent overtemperature for all ranges max. 425 °C for continuous service											
Max. process overtemperature	100 % of span 50 % of span											
Max. ambient temperature	94 °C with dry case, 65 °C with liquid filling											
Stem	Diameter: Stepped stem 8/6 mm, 10/6 and 10/8 mm, Length S: 75 ... 1500 mm, minimum length below RT is 60 mm Enlarged Length RT: 50, 70, 100 mm, other lengths on request											
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	Connection: Stainless steel 316L (1.4404) or 1.4571 (316Ti) Stem: Stainless steel 316L (1.4404) or 1.4571 (316Ti) Case/ring: Stainless steel 304 (1.4301), optional 316L (1.4404) for most case styles Window: Instrument glass, optional laminated safety glass or acrylic glass Dial: Aluminum, black markings on white background Aluminum, black markings on white background, anti parallax Maxivision® dial Pointer: Aluminum, black											
Accuracy	Class 1 (dry) and class 2 (liquid filled) according EN 13190						Grade A (1 %) according to ASME B40.200					
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  II 2G Ex h IIC T6...T1 Gb X II 2D Ex h IIC T85°C...T450°C Db X T _{amb} = -20 °C to +60 °C EU File no.: 35088073 at notified body 0044, TUV NORD CERT UK File no.: 0891-0005 at approved body 0891, Element Materials Technology (only with laminated safety glass and protection IP66)											
Filling liquids	Silicone, acrylic glass is standard, for ATEX approval laminated safety glass is standard; Maximum range up to 300 °C											
Weight in kg	Back	Lower	Every angle	Back	Lower	Every angle	Back	Lower	Every angle	Back	Lower	Every angle
Connection location	0,35	0,55	0,55	0,7	0,9	0,9	0,2	---	0,4	0,4	0,6	0,6
Dry	0,6	---	0,8	1,0	---	1,2	0,6	---	0,7	0,7	---	0,9
Filled												
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.											

All specifications are subject to change without notice.

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) 0/ 60 °F) 0/ 80 °F) 0/100 °F) 0/120 °F) 0/150 °F) 0/160 °F) 0/200 °F) 0/250 °F) 0/300 °F) 0/400 °F) 0/500 °F) 10/150 °F) 50/300 °F) 50/450 °F) 100/500 °F) -10/ 50 °F) -10/110 °F) -20/ 40 °F) -20/ 60 °F) -20/180 °F) -25/ 25 °F) -30/ 50 °F) -30/ 70 °F) -30/170 °F) -40/ 40 °F) -40/ 60 °F) -40/100 °F) -40/160 °F) -50/ 50 °F)	(NH) Stainless steel tag wired (DM) Dial marking (CS) Dual scale (PD) Acrylic glass (SG) Laminated safety glass (EA) External zero adjustment (only for type ART) (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
(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			
(30) 3" (2) (80 mm) (50) 5" (125 mm) (2) Not for ATEX	ASME B40.200 type hermetically sealed (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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