

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 **CE** II 2 GD c Tx°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

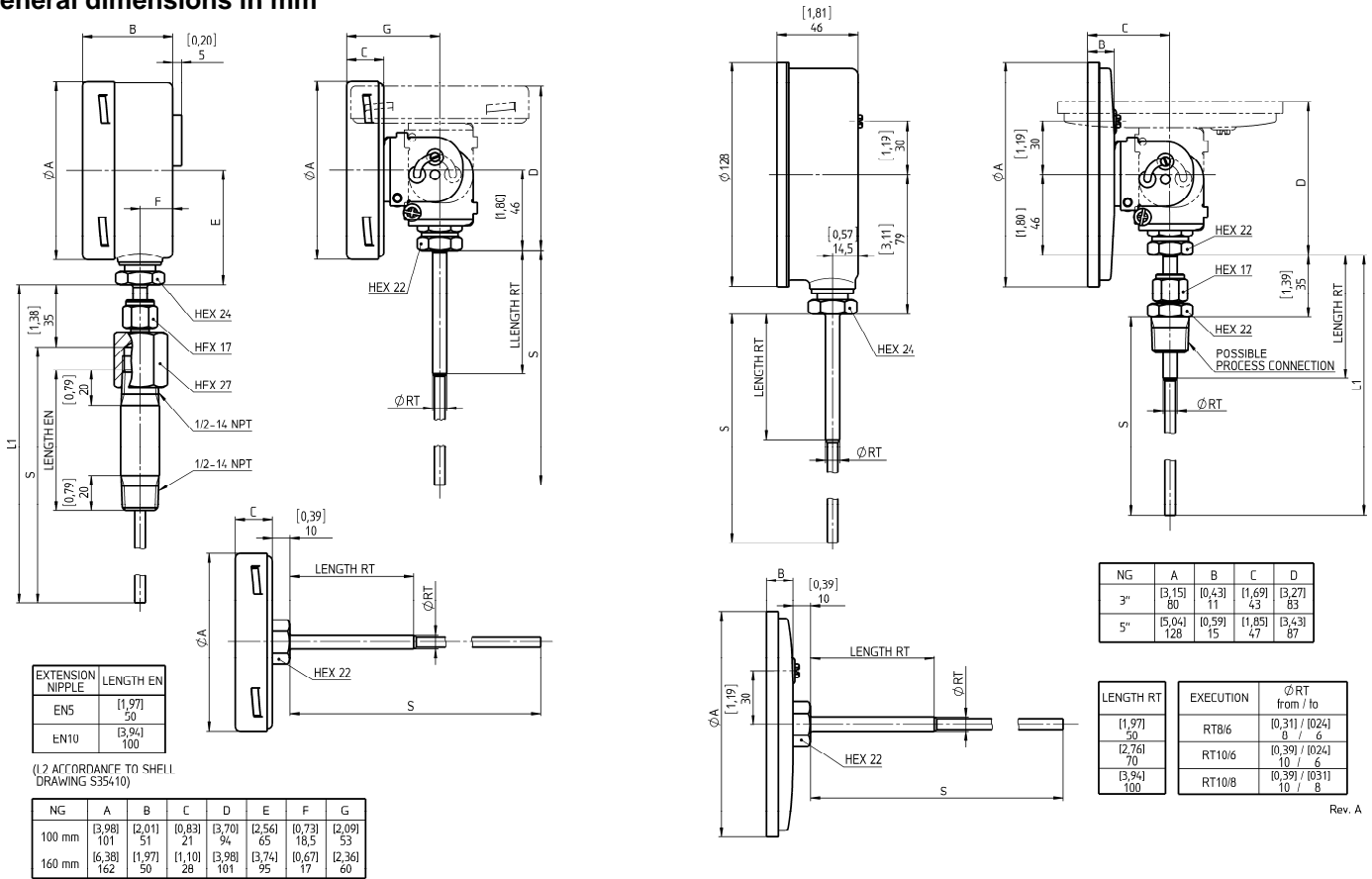
Machine and apparatus construction

Food and beverage industry

Pulp and paper industry

Technical specification	ART						ERT					
	100 mm			160 mm			3" (80 mm)			5" (125 mm)		
Dial size												
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 -20/120 -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						≥ 120 °C and < 290 °C					
Max. process overtemperature	100 % of span						50 % of span					
Max. ambient temperature	94 °C with dry case, 65 °C with liquid filling						≥ 290 °C max. 425 °C for continuous service					
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 or 316Ti (1.4404 or 1.4571) Stem: Stainless steel 316L or 316Ti (1.4404 or 1.4571) Case/ring: Stainless steel 304 (1.4301), optional 316L (1.4404) for most case styles Window: Instrument glass, optional shatter proof 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 to 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 94/9/EC appendix X for mechanical equipment in potential hazardous areas	Optional, Marking CE II 2 GD c Tx°C IP66 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, not for ATEX, acrylic glass is standard, Maximum range up to 300 °C											
Weight in kg	Back Lower angle Back Lower angle Back Lower angle Back Lower angle Back Lower angle Back Lower angle											
Connection location	Back Lower angle Back Lower angle Back Lower angle Back Lower angle Back Lower angle Back Lower 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



(12 ACCORDANCE TO SHFLL DRAWING S354.10)

S = STEM LENGTH (SPECIFY BY CUSTOMER)

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 ¹⁾	75 to 1500 mm	0/ 50 ¹⁾ 0/ 60 ¹⁾ 0/ 80 ¹⁾ 0/100 0/120 0/150 0/160 0/200 0/250 ¹⁾ 0/300 ¹⁾ 0/400 ¹⁾ 0/500 ¹⁾	(NH) Stainless steel tag wired
(160) 160 mm	(ART10/6) 10/6 mm	(L) Liquid filled with silicone max. range 300 °C (not for lower connection, ambient temperature maximum 65 °C)	(070) Adjustable union ½ NPT male	(R) Back		20/120 °F ¹⁾ 30/130 °F ¹⁾ 30/240 °F ¹⁾ 50/300 °F ¹⁾ 50/400 °F ¹⁾ 50/550 °F ¹⁾ 80/180 °F ¹⁾ 100/800 °F ¹⁾ 160/360 °F ¹⁾	(DA) Dial marking
EN 13190 type with bayonet ring	(ART10/8) 10/8 mm		(071) Adjustable union G ½ A male	(E) Every angle		-10/ 50 ¹⁾ -10/110 -20/ 40 ¹⁾ -20/ 60 ¹⁾ -20/180 -25/ 25 ¹⁾ -30/ 50 ¹⁾ -30/ 70 -30/170 -40/ 40 ¹⁾ -40/ 60 -40/100 -40/160 -50/ 50	(CS) Dual scale
(30) 3" (80 mm)	ASME B40.200 type hermetically sealed		(072) Adjustable union ¾ NPT male				200/700 °F ¹⁾ 200/1000 °F ¹⁾ -40/120 °F -40/160 °F -20/120 °F ¹⁾ -80/120 °F -10/100 °F
(50) 5" (125 mm)	(ERT8/6) 8/6 mm		(073) Adjustable union G ¾ male			100/800 °F ¹⁾ 170/270 °F ¹⁾ 200/400 °F ¹⁾ 200/700 °F ¹⁾ 200/1000 °F ¹⁾ -40/120 °F -40/160 °F -20/120 °F ¹⁾ -80/120 °F -10/100 °F	(SG) Shatter proof glass
	(ERT10/6) 10/6 mm		(074) Adjustable union ½ NPT female				(EA) External zero adjustment (only for type ART, not for ATEX)
	(ERT10/8) 10/8 mm		(075) Adjustable union ¾ NPT female				(EN5) Extension nipple 50 mm
			(078) Adjustable union G ½ female				(YW) 316L (1.4404) housing (not for lower connection or dial size 3")
			(079) Adjustable union G ¾ female				(C4) Individual calibration certificate
							(ATEX) ATEX approval

¹⁾ not for dial size 3"

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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