

Temperature switch series VT

with pneumatic switch valve
Accuracy: ± 1 %

Features

- Ambient temperature -20 ... 70 °C
- Suitable for hazardous area
- 5/2 way pneumatic valve
- Pneumatic operation pressure 2 ... 10 bar or 1 ... 3 bar
- Rigid stem and capillary types up to 15 m

Ranges

-40/16 °C up to 260/400 °C
-40/60 °F up to 500/750 °F

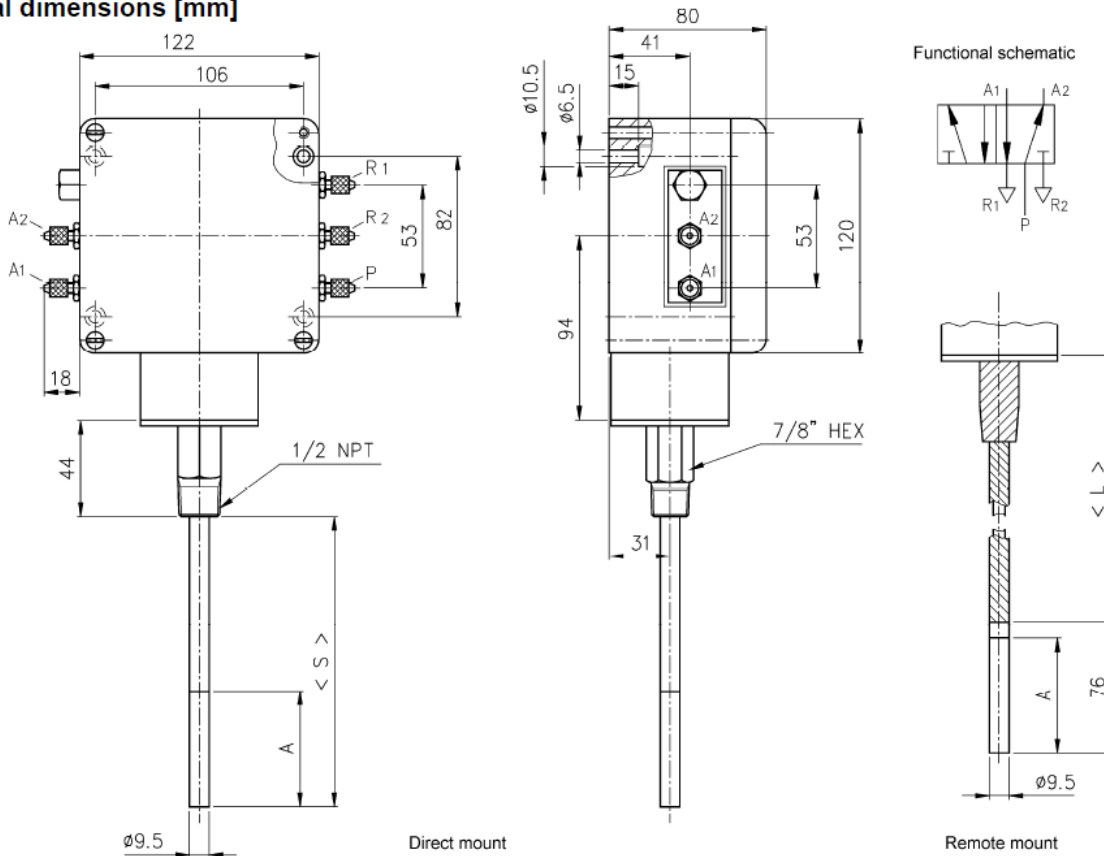
Applications

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



Technical specification	VT series
Construction	Weatherproof
Switch functions	One setpoint, 5/2 way pneumatic valve (see functional schematic)
Adjustable range	From 15 % to 100 %, below 15 % consult factory
Deadband	From 0,5 % to 15 % F.S., depending on material, range and pneumatic valve
Measuring principle	Piston/cylinder system, actuated by a vapor pressure system, SAMA Class II system
Range [°C]	-40/16 -20/40 20/95 65/125 110/190 175/275 260/400
[°F]	-40/60 0/100 75/205 150/260 235/375 350/525 500/750
Limits (temperature ranges) max. temperature	-40/16 °C, -20/40 °C, 20/95 °C and 65/125 °C 110/19 0 °C 175/275 °C 260/400 °C 204 °C 260 °C 371 °C 482 °C
Stem diameter	3/8" (9,5 mm)
Stem length	2 3/4" (70 mm) 4" (102 mm) 6" (152 mm) 9" (229 mm) 12" (305 mm)
Bulb length (capillary type)	3" (76 mm)
Capillary length	5' (1,5 m) 10' (3,0 m) 15' (4,5 m) 20' (6,0 m) 25' (7,5 m) longer lengths on request
Process connection	1/2 NPT male for rigid stem, 1/2 NPT bushing sliding on capillary or bulb
Connection location	Lower
Material	
Connection	Stainless steel 316 (1.4401)
Bushing	Stainless steel 316 (1.4401)
Capillary and armor	Stainless steel 316 (1.4401)
Housing	Aluminum, epoxy coated grey
Accuracy	1 % F.S.
Pneumatic specification	
Valve	Nominal size 2 mm (DN2)
Air supply	2 bar to 10 bar, nominal calibrated 3 bar, air to be dry and filtered (5 µm), optional 1 bar to 3 bar
Pneumatic connection	Nipple DN2 for tube (brass), 1/4 NPT female or 1/4 NPT male, G 1/4 B male or G 1/4 female Located at the side of the housing
General specification	
Permissible	
Ambient temperature	-20 ... 70 °C
Storage temperature	-40 ... 70 °C
Effect	Max. 0,4 % / 10 K ref. 20 °C
Protection according EN 60 529/IEC 529	IP65
Mounting	Direct or rigid stem, wall or 2" pipe mounting (TM) with capillary system
Weight rigid stem/capillary [kg]	1,8/2,3 (with 1 m capillary)
Accessories, options	Thermowells screwed or flanged

General dimensions [mm]



S = stem length (specify by customer), L = capillary length (specify by customer), A = active bulb length 59 mm

Rev. D

Order information

Switch element	Thermal system	Bulb length	Range	Engineering unit	Protection	Air connection	Options
Operating air pressure 2 to 10 bar (W4) 5/2 way pneumatic valve	With capillary	With capillary (030) bulb 3" (76 mm)	-40/ 16	°C	(IP) Standard IP65	(DN2) Tube nipple DN2	(NH) Tagging wired
			-20/ 40				
			20/ 95				
			65/ 125				
			110/ 190				
Operating air pressure 1 to 3 bar (W2) 5/2 way pneumatic valve	With capillary	With capillary	175/ 275	°F	(IP) Standard IP65	(02) 1/4 NPT male	(FS) Factory adjusted setpoint
			260/ 400 ¹⁾				
			-40/ 60				
			0/ 100				
			75/ 205				
	Rigid stem	Rigid stem	150/ 260		(IP) Standard IP65	(25) 1/4 NPT female	(TM) 2" pipe mounting bracket
			235/ 375				
			350/ 525				
			500/ 750 ¹⁾				
	(TS) direct mounted	Rigid stem	(027) 2 3/4" (70 mm) ¹⁾		(IP) Standard IP65	(13) G 1/4 B male	(69C) Adjustable union connection on capillary
			(040) 4" (102 mm)				
			(060) 6" (152 mm)				
			(090) 9" (229 mm)				
			(120) 12" (305 mm)				
			¹⁾ not for 175/275 °C and 350/525 °F				(69H) Adjustable union connection on bulb

How to order

Type	Switch element	Thermal system	Bulb length	Range	Engineering units	Protection	Air connection	Option
VT	W4	T20	030	-20/40	C	IP	02	NH

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