

Temperature switch series PT

Ex-proof according UL or ATEX (EEx d)

One or two independent setpoints

Accuracy: $\pm 1\%$



Features

- Setpoint adjustment separated from electrical system
- Easy setpoint adjustment, with setpoint indication
- Ex II 2 GD
- Protection IP66 or NEMA 7 and 9
- Rigid stem and capillary 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

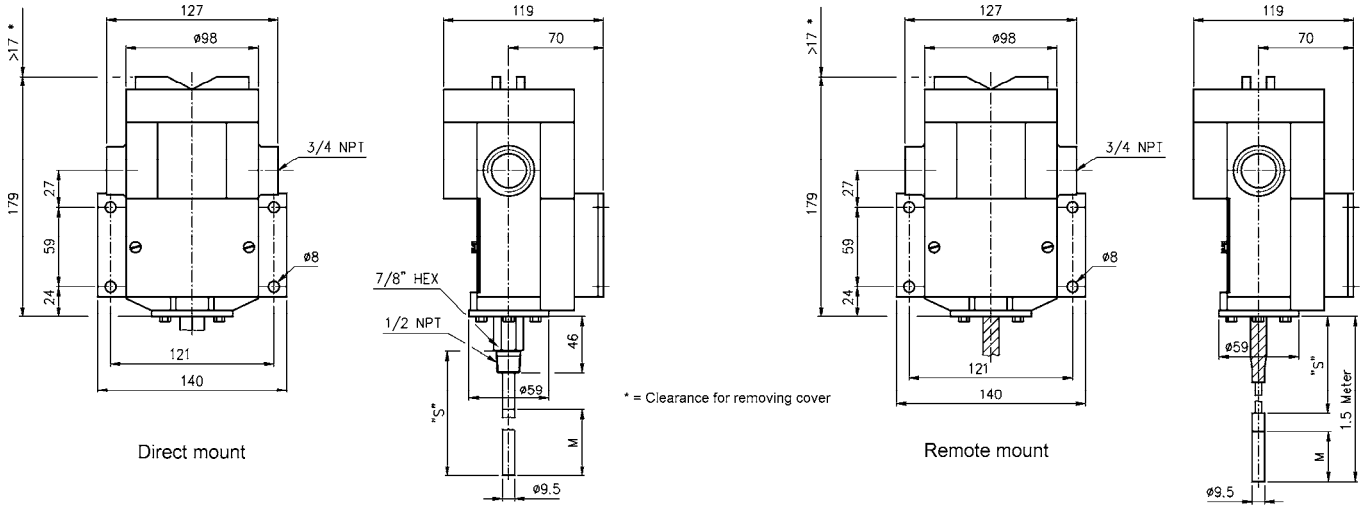
Food and beverage industry

Pulp and paper industry



Technical specification	PT						
	PTA		PTD			PTS	
Type	Explosion proof according UL, CSA or CENELEC (ATEX) Separate chambers for setpoint/deadband adjustment and electrical connections, with setpoint indicators						
Switch (setpoint) functions	One single setpoint		Two setpoints independently adjustable			One single setpoint	
Deadband	Adjustable over 80 %		Fixed			Fixed	
Measuring principle	Piston/cylinder system, actuated by a vapor pressure system, SAMA Class II system						
Range	in °C		in °F				
Limits (temperature ranges)	-40/16	-20/40	20/95	65/125	110/190	175/275	260/400
Max. temperature	-40/60	0/100	75/205	150/260	235/375	350/525	500/750
Stem diameter	3/8" (9,5 mm)		6" (152 mm)		9" (229 mm) 12" (305 mm)		
Stem length	2 3/4" (70 mm)	4" (102 mm)	20' (6,0 m)		25' (7,5 m) longer lengths on request		
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.						
Electrical specification							
Microswitch ratings	Up to max. 6 A 30 VDC respectively 22 A 250 VAC (see microswitch table)						
Ex-proof specification	UL Class 1 Div. 1 Gr. B, C and D EEx d IIB+H ₂ T6 SIRA 03 ATEX 1470						
Electrical connection	3/4 NPT female, optional cable glands, 1/2 NPT with reducer bushing, M20x1,5, others on request						
General specification							
Permissible							
Ambient temperature	-25 ... 60 °C						
Storage temperature	-40 ... 60 °C						
Effect	Max. 0,4 % / 10 K ref. 20 °C						
Protection according UL	NEMA 7 and 9						
Protection according EN 60 529/IEC 529	IP66						
CE-mark	Low voltage regulations EN 61 010-1, EN 60 947-1						
Mounting	Standard stem, wall or 2" pipe mounting (TM)						
Weight rigid stem/capillary in kg	3,0/3,1						
Accessories, options	Thermowells screwed or flanged						

General dimensions in mm



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

Rev. C

Order information

Switch element	Capillary length	Execution capillary	Bulb length	Range	Engineering unit	Protection	Electrical connection	Options
PTA Description single dual	(00) Direct mounted	(=) Direct mounted	Rigid stem	-40/ 16 -20/ 40 20/ 95 65/ 125 110/ 190 175/ 275 260/ 400 ¹⁾	°C	(N7) UL NEMA 7 and 9	(=) Standard	(NH) Tagging wired
(H) General purpose (10 A 250 VAC, 6 A 30 VDC)								
(J) Hermetically sealed (11 A 250 VAC, 5 A 28 VDC)								
PTS PTD								
(C) Heavy duty AC (22 A 250 VAC)								
(F) (FF) Sealed environment sealed (15 A 250 VAC)								
(G) (GG) General purpose ¹⁾ (15 A 250 VAC, 6 A 30 VDC)								
(J) (JJ) Hermetically sealed general purpose ¹⁾ (11 A 250 VAC, 5 A 28 VDC)								
(K) (KK) Narrow deadband (15 A 250 VAC)								
(L) (LL) Hermetically sealed gold contacts (1 A 125 VAC) (for use in intrinsically safe circuits)								
(M) (MM) Low level (gold) contacts (1 A 125 VAC)	(05) 5' (1,5 m)	(A7) Capillary with stainless steel armor	With capillary	-40/ 60 0/ 100 75/ 205 150/ 260 235/ 375 350/ 525 500/ 750 ¹⁾	°F	(CEN3) ATEX EEx d with cable gland EEx d PG13,5	(JL) ¾ female to ½ NPT female reducing bushing	(FS) Factory adjusted setpoint
(O) Hermetically sealed gold contacts (1 A 125 VAC)								
(P) (PP) Hermetically sealed, narrow deadband (5 A 250 VAC)								
(S) Heavy duty DC (10 A 125 VAC, 10 A 125 VDC) (not for protection CEN3 and CEN4)								
(W) (WW) Ammonia service (5A 250 VAC, 6 A 30 VDC)								
(Y) (YY) High temp. (max. 150 °C) (15 A 250 VAC)								
¹⁾ VDC rating not UL listed								
longer capillary on request								
¹⁾ not for 175/275 °C and 350/525 °F								
¹⁾ only for remote thermal system								

How to order

Type	Switch element	Capillary length	Execution capillary	Bulb/Stem length	Range	Engineering unit	Protection	Electrical connection	Option
PTD	GG	05	A7	030	20/95	C	UL	JL	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, 1/3 Rue des Campanules
F-77185 Lognes
Tel.: +33 (0) 1 60 37 25 30, Fax: +33 (0) 1 60 37 25 39

Website: www.ashcroft.eu

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