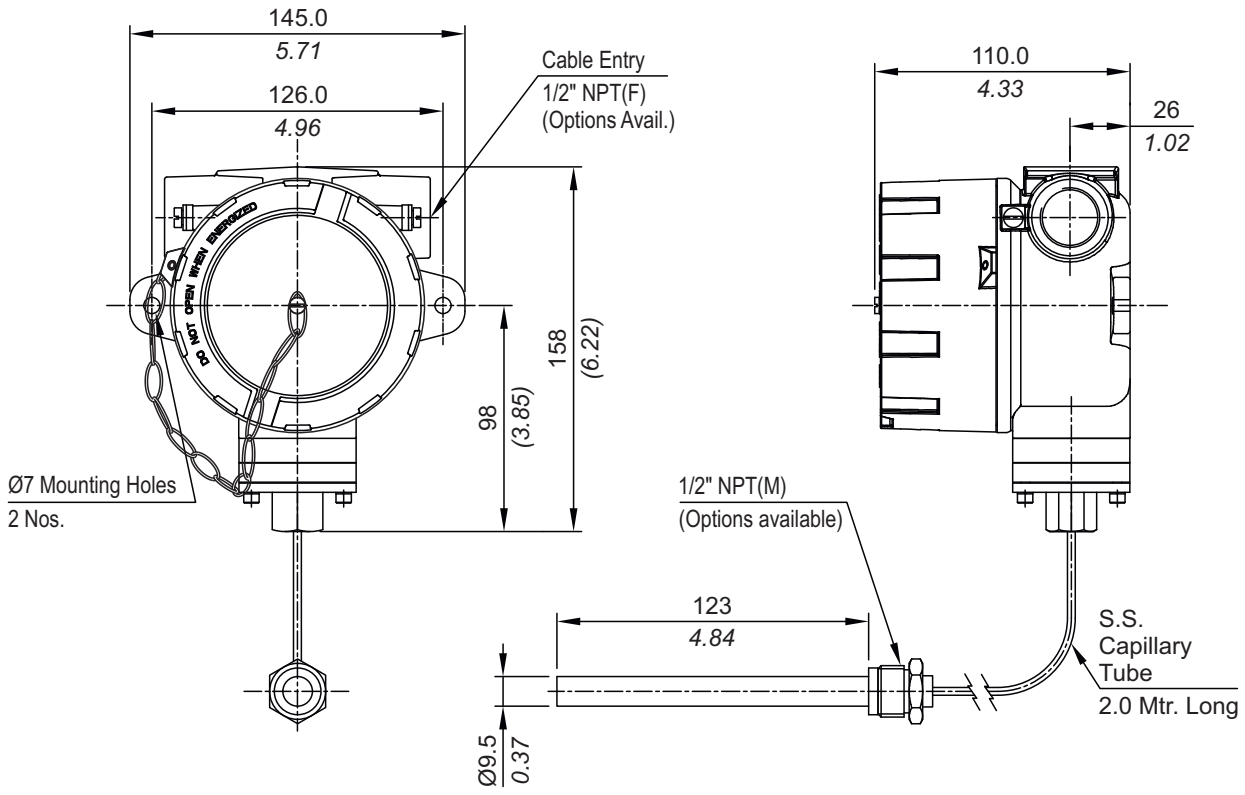
Orion® INSTRUMENTS

FE



INSTALLATION DRAWING



APPROX. DIMENSIONS IN $\frac{mm}{inches}$

RANGE SELECTION TABLE

Range Code	Range °C *(°F)*	Differential* °C *(°F)*	Maximum Working Temperature °C *(°F)*
		Approximate Maximum for "A1" microswitch	
T1H	25 to 90 *(77 to 194)*	15.0 *(59)*	150.0 *(302)*
T2H	70 to 150 *(158 to 302)*	20.0 *(68)*	200.0 *(392)*
T3H	120 to 215 *(248 to 419)*	30.0 *(86)*	300.0 *(572)*

Note:

1. The minimum differential increases with the setpoint. The differential values mentioned in the above table are approximate maximum for FSR. The differential value will vary according to the pressure range selected and microswitch type. For actual values of differential please contact sales office.

2. When using 2SPDT switching arrangement, both microswitches may not actuate and/or deactuate at the same point. A small stage gap, normally upto +/- 5% FSR (depending on range code) may be observed. The On-Off differential (hysterisis) typically tends to be atleast double of those published for 1SPDT pressure switches.

If actuation and/or deactuation at same point is critical part of operation, then it can be achieved by using a separate DPDT relay. This relay will need a separate power supply for it's coil.

HOW TO ORDER FLAMEPROOF TEMPERATURE SWITCHES

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
Non standard allocation	Model	Cable Entry Size	Switch Type	Range Code (values in Deg. Cen.)	Microswitch Type	Temp. Bulb Material / Size	Capillary Material / Size
☐ A prefix "N" is used in the model code in case of any non standard options / accessories that are provided with the switches. Will be given by manufacturer, only after agreement of supply details with customer. The prefix is subject to change as per specific requirement.	**FC** = IP66 Flameproof pressure switch, ATEx, IECEx & PESO approved **FE** = IP66 Flameproof pressure switch, PESO approved	**1** = Al. head ½" NPT threads **2** = Al. head ¾" NPT threads **3** = Al. head M20 x 1.5 threads ***4** = Grey CI head ½" NPT threads ***5** = Grey CI head ¾" NPT threads ***6** = Grey CI head M20 x 1.5 threads **7** = SS head ½" NPT threads **8** = SS head ¾" NPT threads **9** = SS head M20 x 1.5 threads *Not available in FE models	**T1** = Temperature Switch, fixed differential without scale **T2** = Temperature Switch, fixed differential with scale in ˚C For adjustable differential please select microswitches A6 or C6 in group 6	**T1H** = 25 - 90 **T2H** = 70 - 150 **T3H** = 120 - 215	**A1** = General purpose microswitch rated at 15 A; 250 VAC ***A6 =** elements with adjustable deadband ***A7** = 2SPDT switching elements **A8** = General purpose microswitch rated at 5 A, 250 VAC; 5 A, 28 VDC ***B7** = 2SPDT Switching Elements **C6** = 1SPDT Adjustable Differential Please refer to page nos. 120 & 121 for options and specifications of microswitches * Please contact sales office for additional information	**B1** = Brass / Dia. 9.5 mm, 123 mm length, with 3/8" BSP (M) thermowell connection **B2** = Brass / Dia. 9.5 mm, 123 mm length, with 3/8" NPT (M) thermowell connection **B3** = Brass / Dia. 9.5 mm, 123 mm length, with 1/2" NPT (M) thermowell connection **S1** = SS316 / Dia. 9.5 mm, 123 mm length, with 3/8" BSP (M) thermowell connection **S2** = SS316 / Dia. 9.5 mm, 123 mm length, with 3/8" NPT (M) thermowell connection **S3** = SS316 / Dia. 9.5 mm, 123 mm length, with 1/2" NPT (M) thermowell connection Please contact sales office for additional information	**2** = SS316 / 2.0 meter

Approx. switch weight in Kgs

Enclosure	FC	FE
Aluminium	2.780	2.280
Grey CI	5.160	4.660
SS	5.230	4.730

E.g. A Flameproof Temperature switch, with 1/2"NPT cable entry in aluminum housing as 1 SPDT, fixed differential without scale, having 25˚C to 90˚C temperature range, with 15 Amp. microswitch, with Brass 9.5 mm diameter bulb, having length 123 mm with 3/8"BSP(M),with 2.0 meter SS316 capillary length shall be specified by

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
☐	FC	1	T1	T1H	A1	B1	2

Please specify full model number to avoid ambiguity.