



# Orion INSTRUMENTS FC Series High Range Air Relay Switches Instruction Manual

[Home](#) » [Orion Instruments](#) » Orion INSTRUMENTS FC Series High Range Air Relay Switches Instruction Manual



HIGH RANGE AIR RELAY SWITCHES  
FC



## Contents

### 1 PRESSURE CAPSULE DETAILS

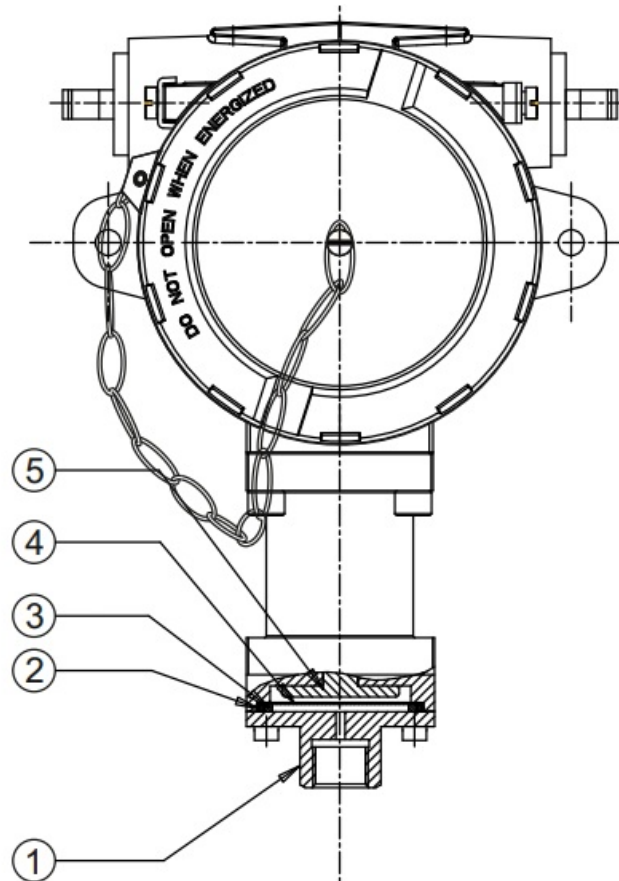
### 2 INSTALLATION DRAWING

### 3 RANGE SELECTION TABLE

### 4 Documents / Resources

#### 4.1 References

## PRESSURE CAPSULE DETAILS

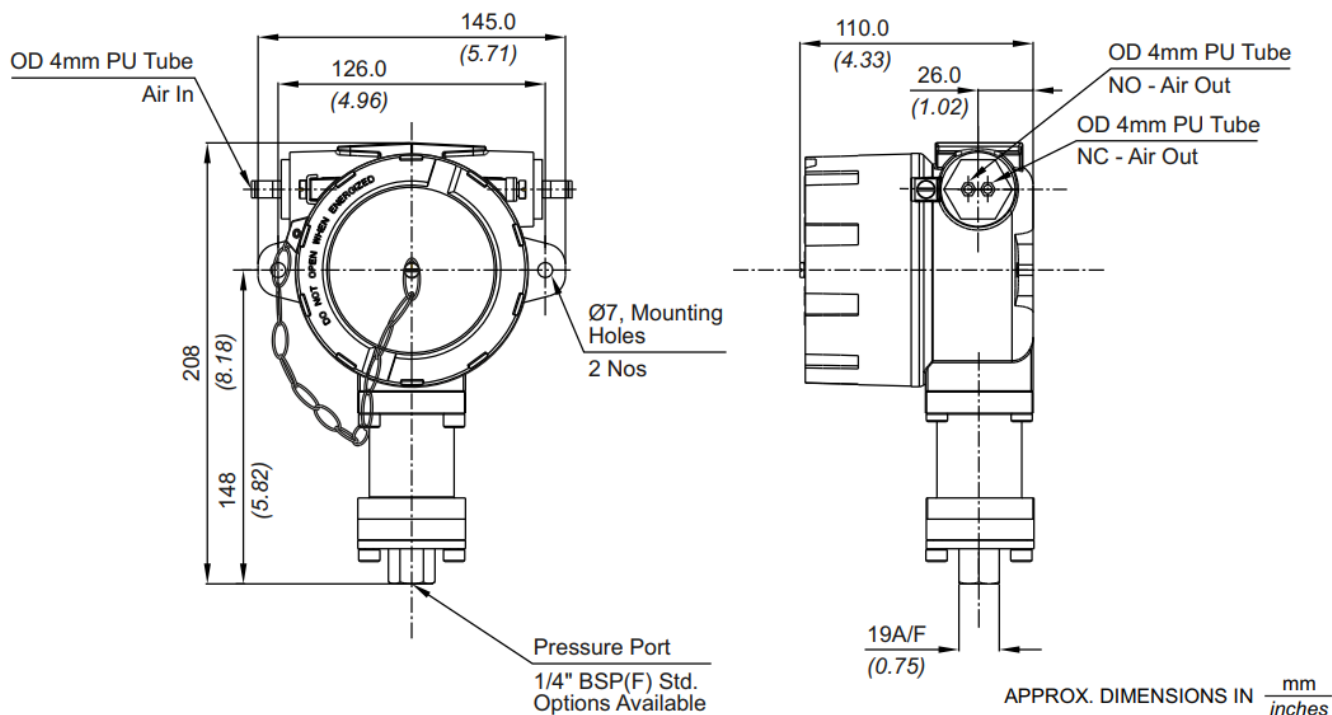


### No. Description

1. Pressure Port
2. PTFE O-Ring
3. Back Up Ring
4. Diaphragm
5. Conical Plunger

**Note** : wetted parts are mentioned in italics.

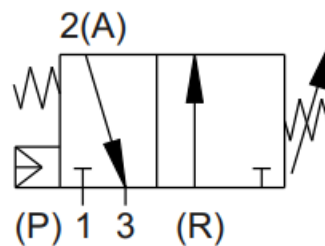
## INSTALLATION DRAWING



## RANGE SELECTION TABLE

Range Code	Range bar (psi)	Differential* bar (psi)	Maximum Working Pressure bar (psi)
		Approximate Maximum for P1 / P2 (Refer Group 6 of How to order table)	
LP	0.067 to 0.213 (0.97 to 3.09)	0.02 (0.29)	5.0 (72.52)
LP5	0.1 to 0.5 (1.45 to 7.25)	0.08 (1.16)	5.0 (72.52)
H01	0.1 to 1.0 (1.45 to 14.50)	0.10 (1.45)	12.0 (174.05)
H02	0.1 to 1.5 (1.45 to 21.76)	0.3 (4.35)	12.0 (174.05)
H03	0.2 to 2.6 (2.90 to 37.71)	0.4 (5.80)	12.0 (174.05)
H04	0.2 to 3.6 (2.90 to 52.21)	0.5 (7.25)	12.0 (174.05)
H07	0.5 to 7.0 (7.25 to 101.53)	0.6 (8.70)	12.0 (174.05)
H10	0.5 to 10.0 (7.25 to 145.037)	1.0 (14.50)	25.0 (362.6)
H15	1.0 to 15.0 (14.50 to 217.56)	1.5 (21.75)	25.0 (362.6)
H30	5.0 to 25.0 (72.52 to 362.60)	2.0 (29.00)	35.0 (507.63)

NO = Normally Open  
NC = Normally Closed  
C = Common



**Note:**

- 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.

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
Non standard allocation	Model	Air Inlet/Outlet Ports	Switch Type	Range Code (values in bar)	Valve Type	Pressure Port Material / Size	Diaphragm
<input type="checkbox"/> Reserved for non-standard options not covered in catalogue. Will be given by manufacturer, only after agreement of supply details with customer.	<b>FC =</b> Air Relay switch  Note: Flameproof certification not applicable for Air Relay Switch	<b>A1 =</b> Al. head PU tube 4mm OD  <b>*A4 =</b> Grey CI PU tube 4mm OD  <b>A7 =</b> SS head PU tube 4mm OD            * Not available in FE models	<b>P1 =</b> pressure switch, fixed differential without scale	<b>LP =</b> (0.067 - 0.213)  <b>LP5 =</b> (0.1 - 0.5)  <b>H01 =</b> (0.1 - 1.0)  <b>H02 =</b> (0.1 - 1.5)  <b>H03 =</b> (0.2 - 2.6)  <b>H04 =</b> (0.2 - 3.6)  <b>H07 =</b> (0.5 - 7.0)  <b>H10 =</b> (0.5 - 10.0)  <b>H15 =</b> (1.0 - 15.0)  <b>H30 =</b> (5.0 - 25.0)	<b>P1=</b> NC valve  <b>P2 =</b> NO valve	<b>S1 =</b> <b>SS316</b> / ¼" BSP(F)  <b>S2 =</b> <b>SS316</b> / ¼" NPT(F)	<b>1 =</b> PTFE  <b>2 =</b> SS 316L  <b>3 =</b> Hastelloy C  <b>4 =</b> Monel  <b>5 =</b> Titanium  <b>6 =</b> Tantalum  <b>7 =</b> Inconel

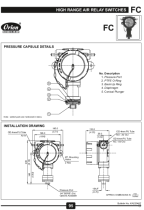
eg. Flameproof air relay switch in aluminium housing with PU tube 4mm OD, fixed differential without scale, having 0.5 bar to 10 bar pressure range, with NC valve, SS316 pressure housing with 1/4" BSP port size & neoprene diaphragm shall be specified by

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
<input type="checkbox"/>	FC	A1	P1	H01	P1	S1	1

Please specify full model number to avoid ambiguity.

Bulletin No. KA220407

Documents / Resources

	<a href="#">Orion INSTRUMENTS FC Series High Range Air Relay Switches</a> [pdf] Instruction Manual LP, FC Series High Range Air Relay Switches, High Range Air Relay Switches, Range Air Relay Switches, Air Relay Switches, Relay Switches, LP5, H01, H02, H03, H04, H07, H10, H15, H30
---	---

References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

This website is an independent publication and is neither affiliated with nor endorsed by any of the trademark owners. The "Bluetooth®" word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. The "Wi-Fi®" word mark and logos are registered trademarks owned by the Wi-Fi Alliance. Any use of these marks on this website does not imply any affiliation with or endorsement.