



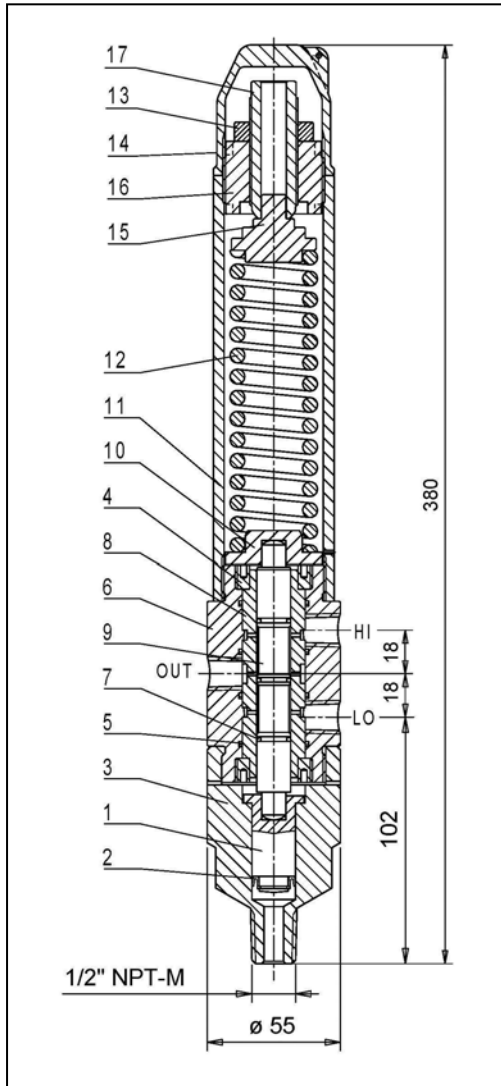
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PNEUMATIC PRESSURE SWITCH

PP 10000N SERIES

HANDBOOK



UNIVERSAL THREE WAY PNEUMATIC PRESSURE SWITCH

- maximum line pressure 700 bar or as per table for range up to 89 bar;
- maximum supply pressure 21 bar;
- setting accuracy lower than 2%;
- death band 5% of upper range limit
- manual setting, locking ring nut;
- temperature limits -20°C + 130°C;
- standard line 1/2" NPT male, other connections on request;
- supply connections 1/4" NPT-female.

Code	Type	Connections		Range		Maximum pressure	
		line	supply	bar	psig	exercise bar	hydrostatic bar
PP2-010-67	PP 1230	1/2" NPT	1/4" NPT	0.5 - 6.9	8 - 100	100	150
PP2-030-67	PP 1231			4.8 - 27.6	70 - 400	150	220
PP2-040-67	PP 1232			17.2 - 89.6	250 - 1300	450	700
PP2-050-67	PP 1233			34.5 - 138	500 - 2000	700	1050
PP2-060-67	PP 1234			117 - 345	1700 - 5000	700	1050
PP2-070-67	PP 1235			310 - 689	4500 - 10000	700	1050

PNEUMATIC PRESSURE SWITCH PP 10000N

The **TECHNICAL** PP 10000N series Pneumatic Pilot serves to intercept and discharge the service circuit pressure in the event of excess pressure or drop in the line pressure beyond the set limits.

1. “ HIGH PRESSURE “ intervention

The figure represent the pilot predisposed to discharge the service pressure in the event of excess line pressure. Under normal working condition in line, the spring (12) pushes the piston (1) to the mechanical stop and the shuttle (9) joins the connections HI and OUT .

When the line pressure exceeds the calibration pressure, the piston (1) rises and lifts the shuttle (9) that intercept the service supply line and, joining the connection OUT with the connection LI , discharges the service circuit pressure.

As the line pressure becomes normalised, the pilot returns to the initial condition..

2. “ LOW PRESSURE ” intervention

Under normal working conditions, the line pressure pushes the piston (1) upward and the shuttle (9) joins the connections LI and OUT .

When the line pressure falls belows the calibration pressure, the spring (12) pushes the piston (1) and the shuttle (9) downwards; the shuttle (9) intercept the supply line and joins the connection OUT and HI , discharging the service circuit pressure.

As the line pressure becomes normalised, the pilot returns to the initial condition.

3. SETTING UP

Before dispatch all the pilot are tested and adjusted to the pressure value required by the customer.

Therefore no adjustment in loco shuold be necessary.

However, if it should be necessary to modify the calibration setting, proceed as follows:

3.1“ HIGH PRESSURE “ calibration

Connect the supply to HI and the discharge to LI :

- remove cap (14), loose the locking nut (13) turn the adjusting screw (17) if necessary to increase the calibration setting; turn counter-clockwise the adjusting screw (17) if it must be decreased;
- tighten the locking nut (13) and screw cap (14).

3.2 “ LOW PRESSURE “ calibration

Connect the supply to the LI and discharge to HI :

- carry out the same operations detailed in point 3.1.

4. DISASSEMBLING AND ASSEMBLING

4.1 Disassembling

For disassembling carry out the following operations progressively:

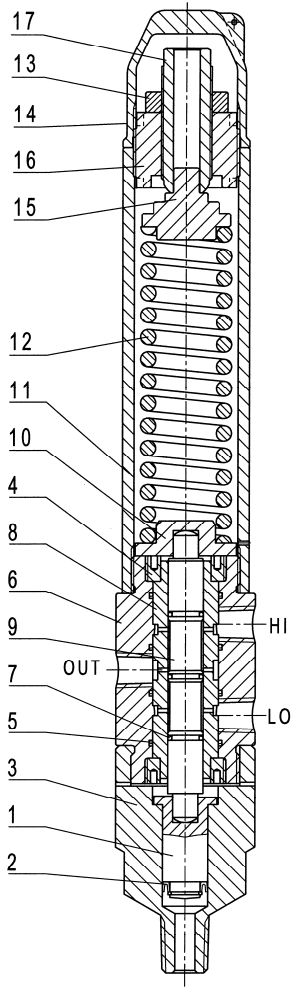
CAUTION : before disassembling the pneumatic pressure switch make sure that the plant on which it is mounted is not “under pressure” and that no pressure inside the pneumatic pressure switch itself has remained.

- remove cap (14), loose the locking nut (13) turn the adjusting screw (17) counter-clockwise until make sure that the spring is totally released and remove the ring nut (16);
- remove upper spring guide (15), the spring (12) and the down spring guide (10);
- unscrew the base (3) from the body (6) and remove the piston (1) and the shuttle (9);
- unscrew the ring nut (4) and remove the bush (8).

4.2 Assembling

For assembling carry out the disassembling operations in reverse order . Proceed with the calibration operation as detailed in point 3.1.

All the threads are right hand.



Material list							
i t e m	Part.	Pressure switch code					
		PP2-010-67	PP2-030-67	PP2-040-67	PP2-050-67	PP2-060-67	PP2-070-67
		Part code and material					
1	Piston	24-0031-47 17-4PH	24-0032-47 17-4PH	24-0034-47 17-4PH	24-0035-47 17-4PH	24-0027-47 17-4PH	24-0028-47 17-4PH
2	Seal ring	85-0111-98 Fpm rubber	85-0112-98 Fpm rubber	17-0042-F9 Ptfе/hast.c	17-0004-F9 Ptfе/hast.c	17-0035-F6 Ptfе/hast.c	17-0035-F6 Ptfе/hast.c
3	Base	22-0024-37 Aisi 316L	22-0025-37 Aisi 316L	22-0026-37 Aisi 316L	22-0027-37 Aisi 316L	22-0021-37 Aisi 316L	22-0021-37 Aisi 316L
4	Ring nut	63-0010-33 Aisi 303	63-0010-33 Aisi 303	63-0010-33 Aisi 303	63-0010-33 Aisi 303	63-0010-33 Aisi 303	63-0010-33 Aisi 303
5	O-ring	85-0093-98 Fpm rubber	85-0093-98 Fpm rubber	85-0093-98 Fpm rubber	85-0093-98 Fpm rubber	85-0093-98 Fpm rubber	85-0093-98 Fpm rubber
6	Body	07-0128-37 Aisi 316L	07-0128-37 Aisi 316L	07-0128-37 Aisi 316L	07-0128-37 Aisi 316L	07-0128-37 Aisi 316L	07-0128-37 Aisi 316L
7	O-ring	85-0069-98 Fpm rubber	85-0069-98 Fpm rubber	85-0069-98 Fpm rubber	85-0069-98 Fpm rubber	85-0069-98 Fpm rubber	85-0069-98 Fpm rubber
8	Bush	49-0032-84 Ptfе/carbogra	49-0032-84 Ptfе/carbogra	49-0032-84 Ptfе/carbogra	49-0032-84 Ptfе/carbogra	49-0032-84 Ptfе/carbogra	49-0032-84 Ptfе/carbogra
9	Shuttle	49-0032-84 Ptfе/carbogra	49-0032-84 Ptfе/carbogra	49-0032-84 Ptfе/carbogra	49-0032-84 Ptfе/carbogra	12-0083-37 Aisi 316L	12-0083-37 Aisi 316L
10	Lower spring guide	04-0138-33 Aisi 303	04-0138-33 Aisi 303	04-0138-33 Aisi 303	04-0138-33 Aisi 303	04-0138-33 Aisi 303	04-0138-33 Aisi 303
11	Bonnet	10-0370-37 Aisi 316L	10-0370-37 Aisi 316L	10-0370-37 Aisi 316L	10-0370-37 Aisi 316L	10-0370-37 Aisi 316L	10-0370-37 Aisi 316L
12	Spring	13-0187-36 Aisi 316L	13-0209-36 Aisi 316L	13-0209-36 Aisi 316L	13-0209-36 Aisi 316L	13-0209-36 Aisi 316L	13-0209-36 Aisi 316L
13	Lock nut	16-0017-33 Aisi 303	16-0017-33 Aisi 303	16-0017-33 Aisi 303	16-0017-33 Aisi 303	16-0017-33 Aisi 303	16-0017-33 Aisi 303
14	Cap	10-0342-37 Aisi 316L	10-0342-37 Aisi 316L	10-0342-37 Aisi 316L	10-0342-37 Aisi 316L	10-0342-37 Aisi 316L	10-0342-37 Aisi 316L
15	Upper spring guide	04-0706-33 Aisi 303	04-0706-33 Aisi 303	04-0706-33 Aisi 303	04-0706-33 Aisi 303	04-0706-33 Aisi 303	04-0706-33 Aisi 303
16	Ring nut	63-0030-37 Aisi 316L	63-0030-37 Aisi 316L	63-0030-37 Aisi 316L	63-0030-37 Aisi 316L	63-0030-37 Aisi 316L	63-0030-37 Aisi 316L
17	Adjusting screw	06-0427-43 Aisi 431	06-0427-43 Aisi 431	06-0427-43 Aisi 431	06-0427-43 Aisi 431	06-0427-43 Aisi 431	06-0427-43 Aisi 431

