



INDUSTRIAL PRESSURE SWITCHES ST SERIES



- **RUGGED CONSTRUCTION**
- **ADJUSTABLE OR FIXED DIFFERENTIAL**
- **HIGH SHOCK RESISTANCE**
- **DIAPHRAGM SENSOR**
- **WEATHERPROOF ENCLOSURE**

ST Series of Pressure Switches are designed for tough environments and are used for interfacing pneumatic or hydraulic systems with electrical control systems for switching 'ON' or switching 'OFF' of signals in response to pressure changes in the system.

High repeatability and very low long-term drift are special features of this ST Series. Durable optimum mass components provide excellent long term performance under heavy vibration and shock conditions.

GENERAL SPECIFICATION

Enclosure	Die Cast Aluminium Weatherproof to IP:66
Ranges	Four standard ranges from 0.06 to 17 bar
Accuracy (Repeatability)	± 0.5% to ± 1% FSR
Sensor (Temp)	Nitrile (110°C) – Std. EPDM (130°C) / Viton (200°C) optional
Wetted Parts	MS plated
Switching	Snap acting SPDT microswitch
Switch Rating	10A 110VDC Res. 2A 110V DC Ind
Switching Diff.	Adjustable – Std.; Fixed – Opt.
Connection	
Process	1/4" BSPF Std., Others via adaptors
Electrical	3/4" ET with Nylon cable gland suitable for 8 dia cable
Mounting	Wall or Panel
Ambient Temperature	0 to 70°C
Conformity	Generally to BS 6134:1991

RANGE TABLE

Range Code	Range (bar)	Fixed Diff. at mid range (bar) Code F	Narrowband Adjustable Diff. at mid range (bar) Code N	Maximum Working Pressure (bar)
A	0.06 to 2.75	0.15	0.15 to 0.5	7
B	0.1 to 5.0	0.25	0.25 to 1	16
C	0.2 to 10.5	0.4	0.4 to 2	33
D	0.3 to 17	0.6	0.6 to 3	52



ORDERING MATRIX

STYLE	ST	P	A	N	1	1
Single Input pressure	_____	P	_____	_____	_____	_____
RANGE						
0.06 to 2.75 bar	_____		A	_____	_____	_____
0.1 to 5 bar	_____		B	_____	_____	_____
0.2 to 10.5 bar	_____		C	_____	_____	_____
0.3 to 17 bar	_____		D	_____	_____	_____
DIFFERENTIAL						
Adj. Narrow Band – Std.	_____			N	_____	_____
Fixed	_____			F	_____	_____
DIAPHRAGM MATERIAL						
Nitrile (Buna N) – Std.	_____					1
EPDM	_____					2
Viton	_____					3
PROCESS CONNECTION						
1/4" BSPF – Std	_____					1
Others	_____					9

TECHNICAL NOTES AND APPLICATION

- 1. Range:** Represents upper and lower pressure limits within which the operating settings can be adjusted. Adding the differential value to the decreasing pressure operating point decides the increasing pressure operating point.
- 2. On-Off Differential:** It is a difference in pressure between raising and falling pressure values. It can be either factory fixed or field adjustable.
- 3. Maximum Working Pressure (MWP):** It is a pressure to which the instrument can be subjected to without causing any change in operating characteristics or damage to it.

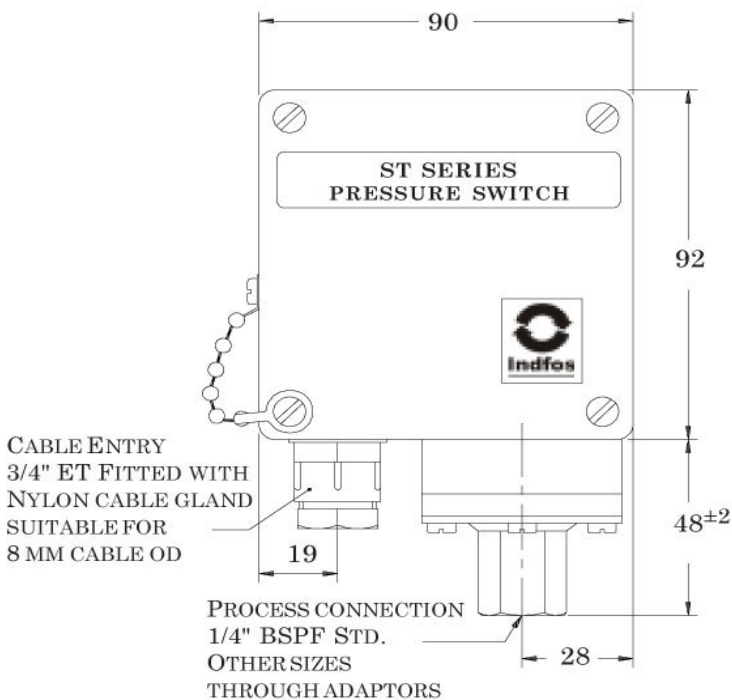
Process pressure surges may occur at times. But surges are not normally detrimental to the switch life, provided it is within the MWP.

It is advisable to ensure that surges are not more than twenty a day. More frequent surges reduce the diaphragm life greatly.
- 4.** These switches can be generally used in most of the applications where switching contacts are required to be operated in response to system pressure change.

- 5.** General applications are –

(a) Compressed air systems	(b) HVAC equipments
(c) Chillers	(d) Pump control
(e) Machine tools	(f) Presses
(g) Welding machines	(h) Process equipments
(i) Moulding machines	
- 6.** Pressure switches typically perform either of the following functions :
 - a)** Monitoring the system pressure. The switch can be used either as an interlock in a sequential operation or to alert at predetermined pressure by an audio or visual signal. A switch with fixed on-off differential is selected for such applications.
 - b)** To control the system pressure by starting and stopping a pump or a compressor at predetermined pressures. A pressure switch with adjustable differential is generally used in such applications.

MOUNTING DIMENSIONS



All dimensions are in mm

This is not a contractual document. Prior notification of changes in specifications is impracticable due to continuous improvement

