Introduction

The initial of our product lines, these switches are meant for light duty applications for the OEM industry. Many of them need to be used in clean atmospheres, sometimes inside a panel. These are compact, low cost and built just for the intended use. Most of them can be configured for a particular purpose by selecting the wetted parts, but electrical ratings are restricted to 5 A, 250 VAC.

APPLICATIONS

- Lubrication Systems
- Steam Sterilisers
- Hospital Equipment
- Water treatment
- Fire protection
- Machine Tools
- Boilers and Compressors
- Furnaces
- Textile Machinery
- Pharmaceuticals
- Hydraulics & Pneumatics
- Automobiles

PRODUCT SPECIFICATIONS:

- Storage temperature : Atmospheric temperature
- Operating ambient temperature : - 20° C to + 60° C
- Media temperature : for rubber diaphragms 80° C max
- Can be offered for higher temperatures with other capsule combinations
- Setpoint repeatability : ± 1 % of FSR
- Enclosure : Pressed steel powder coated with plastic cover
- Switch output : Choice of SPDT, 2SPDT, hermetically sealed, gold plated contacts
- Process connection : ¼" BSP standard, other options like flanges, triclover clamps, diaphragm seals available.
- Accessories : Adaptors, 2" pipe-mounting brackets, syphons, impulse tubes etc.

FEATURES

- Compact
- Scale for easier setpoint (optional)
- Enclosure protection : upto IP 65 (varies with model)
- Reliable accurate microswitches for long life switching
- Customized arrangements for switching values on request
- Easy safe wiring options
- Field adjustable
- Accuracy +/- 1 % FSR
- Warranty : 2 years

*Accuracy changes with switch configuration

COMPACT SWITCHES

SPECIFIER'S GUIDE FOR

- PRESSURE SWITCHES
- PRESSURE DIFFERENCE SWITCHES
- VACUUM SWITCHES

Orion® INSTRUMENTS

Parus®



Using the section

This section on helps you make a logical choice in selecting the best product for a particular application. It allows a user familiar with our product line to locate the exact page the product is listed on. For those not familiar with our products, a logical sequence is given to help the user pick the best product for their need.

By taking a few minutes to familiarise yourself with the catalogue organization, you will find it very easy to locate the product / information you need.

1. The contents page lists the broad outline in which the catalogue is organized, and will help the user familiar with products to select the page on which the product or other useful information is listed.
2. Need Product Selection help ?

   Product selection help will start with the “Pictorial Index” on Page 201, where the products are broadly classified. A brief description of each product group , a typical photo of the product within the group and the page number on which it is listed are given.

   If the user is not familiar with the products, a product selection guide is provided on pages 204 through 209, where photos for each product and important specifications are given to help determine and select the best product for the application.

   By evaluating and comparing these parameters, a logical selection can be made. Turn to the page on which the product information for the selected product is listed, for :

   Capsule Construction details

   Physical sizes

   Special features

   Ranges, hysterisis, electrical ratings etc.

   Ordering information

   Some applications

   The organisation of each of these pages is demonstrated on pages 202 and 203, of this section “How to use this section”.

   In many cases, more than one product may work. For the most cost effective solution, compare prices and consider alternatives. Remember, the end cost includes initial product price, plus the installation, plus the service.

3. Need the terminology explained? (see page 300)

   Turn to page 300 for the definitions and terminology. This will help you familiarize with the terms used throughout the catalogue.

4. Need information on Accessories? (see page 292)

   Turn to page 292 for information on important accessories. These will give information on only important accessories, and information needed, when these are to be supplied with our products.

5. Need selection guidance? (see page 301)

   A logical procedure on page 301 will help you to consider most of the important factors when selecting a pressure switch.

6. Need other products ? (see page 302)

   Products other than those listed in this catalogue are referenced on these pages. Separate catalogues for these products are available.

Compact Switches Pictorial Index

PRESSURE SWITCHES

HIGH RANGE

MG/ME



Page No. 210

MN/MA



Page No. 212

HM



Page No. 218

DT



Page No. 224

LOW RANGE

MN/MA



Page No. 234

HYGEINE RANGE

MG/ME TRICLOVER



Page No. 216

HYDRAULIC RANGE

DN/DA



Page No. 214

HM /HO



Page No. 220

HM / HO 350



Page No. 222

DT



Page No. 226

PRESSURE DIFFERENCE SWITCHES

HIGH RANGE

DP



Page No. 236

PD



Page No. 238

PD ΔP



Page No. 240

LOW RANGE

PD



Page No. 242

PA



Page No. 244

VACUUM SWITCHES

HIGH RANGE

MN/MA



Page No. 228

VS1



Page No. 230

MG



Page No. 232

LOW RANGE

Low range pressure difference switches can be used as vacuum switches when high pressure port is vented to atmosphere

*Hydraulic ranges are ranges typically from 2 bar to 600 bar, used in oil applications.
However, these switches can be used for other media depending on wetted parts compatibility.

HOW TO USE this section

Due to the variety in product types and their salient features, catalogue page formats may vary. But generally the following format is adhered to.

Elements appearing on each page will be:

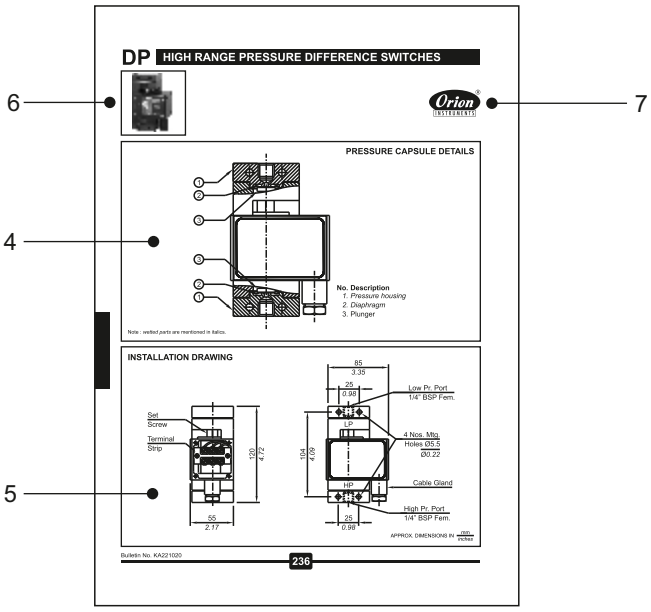
1. Product family / series - A product family / series will appear on the outside page corner, depending on the left / right hand page, and will be in large bold type.

2. Product description - will appear immediately following the product family / series at top of the page and will be in bold type.

3. Features - will appear next to product description & will enlist only the major attributes.

4. Pressure capsule details - will show the construction of the pressure capsule and all it's internal parts. If the process / working medium is variable, the wetted parts will be mentioned in italics. If the wetted parts are unique, the material of construction (MOC) will be mentioned alongside in brackets. Where the material of construction is not specified, it will vary and the options are to be selected by the user considering the compatibility of the process / working medium. Modifications can be made to suit any particular medium, if the answer for your needs is not in the standard MOC listed. Products for which process / working medium is predefined, pressure capsule details are not provided (e.g as in case of comparison test pump). Pressure capsule details of accessories are not given.

5. Installation drawing - will show the typical installation dimensions of products as they exist in their standard forms. The dimensions are mentioned in millimetres and also in inches to facilitate the user. The dimensions of accessories will have to be added to these to arrive at any particular general arrangement (GA) drawings. The dimensions are approximate and for precise dimensions, where mounting space is restricted, the user may contact the nearest sales office. Installation drawings of only fast moving accessories are given.



6. Photos - will appear on the relevant top of the page for products. If there are mounting variations / styles, all the styles for standard products will appear for easy identification. Options, if included in the photograph, are for demonstration only, and are not a part of the standard equipment. For accessories, the photos are not given due to the sheer variety and range available.

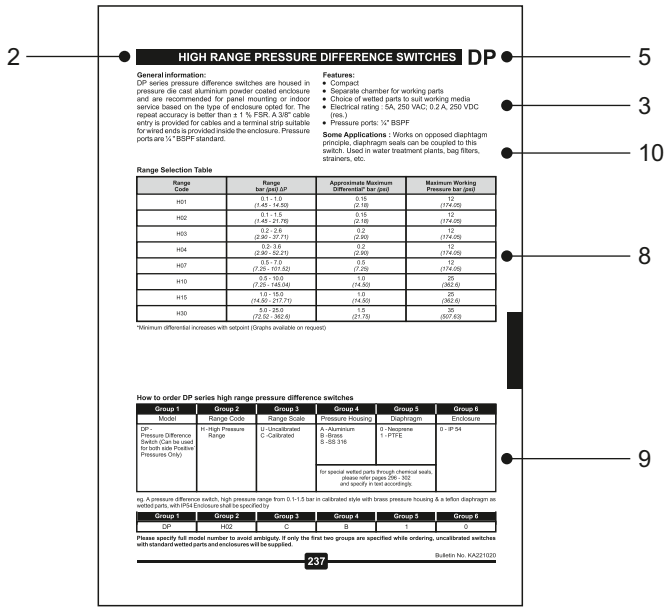
7. Logo - will appear on left hand top of page to identify the manufacturer.

8. Characteristics - Range tables and their relevant data, e.g the range covered, the differentials and maximum working pressures will generally appear on the right hand page. Additional technical details will also be mentioned, wherever required, on the right hand side of the page.

9. Ordering guide - A guide as to how to order the particular series' variations will appear on right hand bottom of the page. Only the variations available within a particular product family / series will appear here. Any additional accessories or modifications required for the product need to be mentioned in text by the user.

10. Some applications - will appear under features. This is for easy understanding of the specific use of the product.

11. Numerous combinations are possible when pressure switches are provided with accessories like chemical seals, snubbers, remote seals, pipe mounting brackets, combination of switches mounted in a panel etc. Users are requested to provide the details of accessories required in text / drawings, as separate identification codes are provided for pressure switches fitted and supplied with accessories.



Product Selection Guide

High Range Pressure Switches



Page No. 210



Page No. 210



Page No. 212



Page No. 212

	Model	MG	ME	MN	MA
	Switch type	Single (High Pr.)	Adj. Diff. (High Pr.)	Single (High Pr.)	Adj. Diff. (High Pr.)
	Differential type	Fixed	Adjustable	Fixed	Adjustable
	Repeatability (% FSR)	± 1.5	± 1.5	± 1	± 1
	Range covered	0.067 bar to 25 bar	0.1 bar to 25 bar	0.067 bar to 25 bar	0.1 bar to 25 bar
	Enclosure Standard Optional	Pressed steel enclosures IP 40		Pr. diecast Al. (IP 54) Pr. diecast Al. (IP 65)	
WETTED PARTS	sensing element Standard Optional	Diaphragm nylon reinforced neoprene diaphragm PTFE			
WETTED PARTS	Pressure housing Standard Optional	Aluminium Brass/SS316			
WETTED PARTS	Other Wetted Parts	-			
WETTED PARTS	Optional wetted parts through chem. seal	-		SS316, Hastelloy B2, Hastelloy C4, Hastelloy C22, Hastelloy C276, Inconel Alloy 600, Monel Alloy 400, Monel Alloy K500, Nickel, Platinum, Tantalum, Titanium, Zirconium, Silver, PTFE	
	Temp. of working medium	80°C maximum. For higher temperature, please use impulse tubing/chemical seals.			
	Switching element	SPDT Snap action switch rated at 5A, 250 VAC, 0.2 A, 250 VDC resistive.			

Accessories can be supplied with most of the switches. Please consult sales office.

Hydraulic Pressure Switches
Hygeine Pressure Switches



Page No. 214



Page No. 214



Page No. 216



Page No. 216

DN	DA	MG	ME
Single (Hydr. Pr.)	Adj. Diff. (Hydr. Pr.)	Single (Triclover)	Single (Triclover)
Fixed	Adjustable	Fixed	Adjustable
± 1	± 1	± 1.5	
3 bar to 400 bar		0.2 bar to 15 bar	
Pr. diecast Al. IP 65		Pressed Steel Enclosure IP 40	
Piston EN8 SS		Diaphragm SS316L	
Aluminium Brass		Aluminium Triclover SS316L SS316L	
PTFE, Viton, Brass, EN8			
SS316, Hastelloy B2, Hastelloy C4, Hastelloy C22, Hastelloy C276, Inconel Alloy 600, Monel Alloy 400, Monel Alloy K500, Nickel, Platinum, Tantalum, Titanium, Zirconium, Silver, PTFE			
80°C maximum. For higher temperature, please use impulse tubing/chemical seals.			
SPDT Snap action switch rated at 5A, 250 VAC, 0.2 A, 250 VDC resistive.			

Accessories can be supplied with most of the switches. Please consult sales office.

Product Selection Guide

High Range Pressure Switches

Hydraulic Pressure Switches



Page No. 218



Page No. 220



Page No. 222



Page No. 224

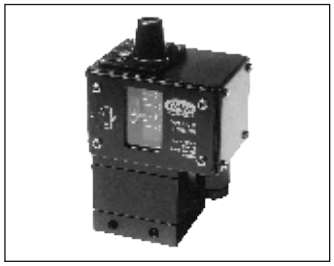
	Model	HM (HIGH)	HM/HO	HM/HO 350	DT (HIGH)
	Switch type	High range pr. switch	Hydraulic pr. switch	Hydraulic pr. switch	High range pr. switch
	Differential type	Fixed	Fixed	Fixed	Fixed
	Repeatability (% FSR)	± 2	± 1	± 2	± 2
	Range covered	0.2 bar to 25 bar	3 bar to 400 bar	35 bar to 350 bar	1 bar to 15 bar
	Enclosure Standard Optional	Machined aluminium to IP 65		Pr. diecast Al. (IP 65)	Cast aluminium to IP 54
WETTED PARTS	sensing element Standard Optional	nylon reinforced neoprene diaphragm teflon	Piston EN8 SS	Piston EN8	Diaphragm nylon reinforced neoprene diaphragm
WETTED PARTS	Pressure housing Standard Optional		Aluminium Brass	MS	
WETTED PARTS	Other Wetted Parts	Viton, MS/Brass, Nitrile		Viton, PTFE	EN8, Brass
WETTED PARTS	Optional wetted parts through chem. seal	SS316, Hastelloy B2, Hastelloy C4, Hastelloy C22, Hastelloy C276, Inconel Alloy 600, Monel Alloy 400, Monel Alloy K500, Nickel, Platinum, Tantalum, Titanium, Zirconium, Silver, PTFE		-	-
	Temp. of working medium	80°C maximum. For higher temperature, please use impulse tubing/chemical seals.			
	Switching element	SPDT Snap action switch rated at 5A, 250 VAC, 0.2 A, 250 VDC resistive.			

Accessories can be supplied with most of the switches. Please consult sales office.

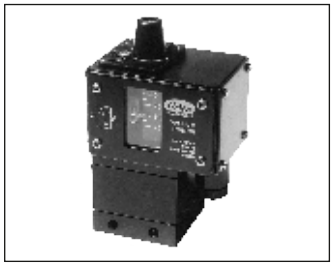
Hydraulic Pressure Switches
Vacuum Switches



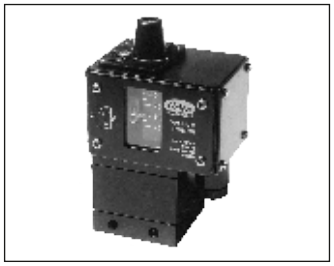
Page No. 226



Page No. 228



Page No. 228



Page No. 230

DT	MN	MA	VS1
Hydraulic pr. switch	HI range vacuum sw.	HI range vacuum sw.	HI range vacuum sw.
Fixed	Fixed	Adjustable	Fixed
± 2	± 2	± 2	± 2
4 bar to 600 bar	760 to 100 mm Hg vac	760 to 100 mm Hg vac	760 to 100 mm Hg vac
Cast aluminium to IP 54	Pressure diecast Aluminium IP 54 IP 65		
Piston EN8 SS	Diaphragm nylon reinforced neoprene diaphragm PTFE		
Aluminium Brass	Aluminium Brass/SS316		
EN8, Brass/SS, Viton	SS		
-	-	-	
80°C maximum. For higher temperature, please use impulse tubing/chemical seals.			
SPDT Snap action switch rated at 5A, 250 VAC, 0.2 A, 250 VDC resistive.			
	15 A, 250 VAC (res.) Optionally		

Accessories can be supplied with most of the switches. Please consult sales office.

Product Selection Guide

Low Range Pressure Switches

High Range Pressure Difference Switches



Page No. 232



Page No. 234



Page No. 234



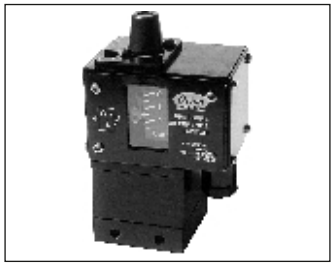
Page No. 236

	Model	MG	MN	MA	DP
	Switch type	HI range vacuum sw.	low range pr. sw.	low range pr. switch	Pr. Difference switch
	Differential type	Fixed	Fixed	Adjustable	Fixed
	Repeatability (% FSR)	± 2			± 1
	Range covered	760 to 100 mm Hg vac	20 to 2500 mm wg		0.1 bar to 25 bar
	Enclosure Standard Optional	Pressure diecast Aluminium IP 54 IP 65			
WETTED PARTS	sensing element Standard Optional	Diaphragm nylon reinforced neoprene diaphragm PTFE			
WETTED PARTS	Pressure housing Standard Optional	Aluminium Brass/SS316	Aluminium SS316		Aluminium Brass/SS 316
WETTED PARTS	Other Wetted Parts	SS	SS, Nitrile		
WETTED PARTS	Optional wetted parts through chem. seal	-			SS316, Hastelloy B2, Hastelloy C4, Hastelloy C22, Hastelloy C276, Inconel Alloy 600, Monel Alloy 400, Monel Alloy K500, Nickel, Platinum, Tantalum, Titanium, Zirconium, Silver, PTFE
WETTED PARTS	Temp. of working medium	80°C maximum. For higher temperature, please use impulse tubing/chemical seals.	80°C maximum. For higher temperature, please use impulse tubing.		
WETTED PARTS	Switching element	SPDT Snap action switch rated at 5A, 250 VAC, 0.2 A, 250 VDC resistive.			5A, 250VAC, 0.2 A, 250VDC resistive.

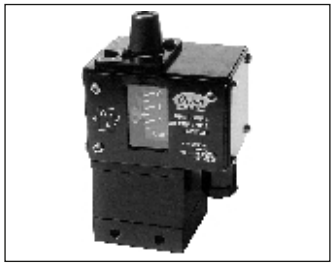
Accessories can be supplied with most of the switches. Please consult sales office.

High Range Pressure Difference Switches

Low Range Pressure Difference Switches



Page No. 238



Page No. 240



Page No. 242



Page No. 244

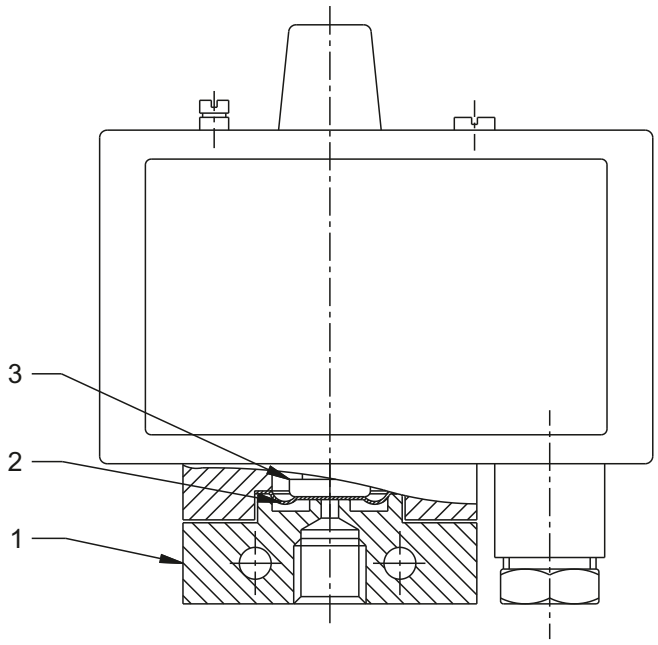
PD	PD ΔP	PD	PA
Pressure Difference Switch		Low range pr. diff.	Low range pr. diff.
Fixed		Fixed	Adjustable
± 2		± 2	± 2
0.1 bar to 3.6 bar	0.1 bar to 3.6 bar	15 to 2500 mm wg	100 to 500 mm wg
Pressure diecast Aluminium IP 54 IP 65			
diaphragm nylon reinforced neoprene PTFE		diaphragm nylon reinforced neoprene	
Aluminium Brass/SS 316	Brass/SS 316	MS SS316	
SS, PTFE		SS, Nitrile, Aluminium	
SS316, Hastelloy B2, Hastelloy C4, Hastelloy C22, Hastelloy C276, Inconel Alloy 600, Monel Alloy 400, Monel Alloy K500, Nickel, Platinum, Tantalum, Titanium, Zirconium, Silver, PTFE		-	
80°C maximum. For higher temperature, please use impulse tubing/chemical seals.			
5A, 250VAC, 0.2 A, 250VDC resistive.		SPDT Snap action switch rated at 5A, 250 VAC, 0.2 A, 250 VDC resistive.	

Accessories can be supplied with most of the switches. Please consult sales office.

MG / ME HIGH RANGE PRESSURE SWITCHES



PRESSURE CAPSULE DETAILS

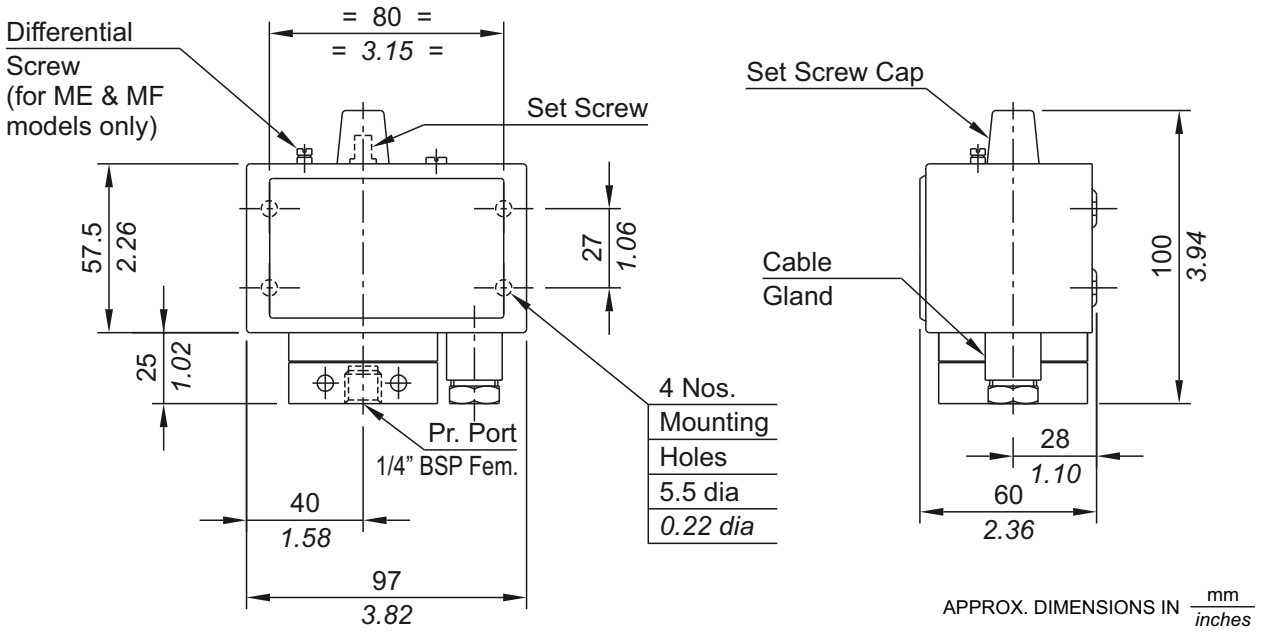


No. Description

1. *Pressure Housing*
2. *Diaphragm*
3. Plunger

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



APPROX. DIMENSIONS IN mm / *inches*

HIGH RANGE PRESSURE SWITCHES MG / ME

General information:
MG / ME series pressure switches are housed in pressed steel powder coated enclosure and are recommended for panel mounting or indoor service. The repeat accuracy is better than ± 1.5 % FSR. A 3/8" cable entry is provided for cables and a terminal strip suitable for wired ends is provided inside the enclosure. Pressure port is ¼ " BSPF standard.

Features:
- Compact
- Choice of wetted parts to suit working media
- Electrical rating : 5A, 250 VAC; 0.2 A, 250VDC (res.)
- Proof pressure available can be 4 times MWP (optional)
- Pressure port: ¼" BSPF

Some Applications : Used in textile industries, furnaces, compressors, etc.

Range Selection Table

MG **ME**

Range Code	Range † bar *(psi)*	*Approximate Maximum Differential bar *(psi)*	* Adjustable Differential bar *(psi)*	Maximum Working Pressure bar *(psi)*
LP	0.067 - 0.213 Ψ *(0.96 - 3.09)*	0.02 *(0.30)*	-	5 *(72.52)*
LP5	0.1 - 0.5 *(1.45 - 7.25)*	0.10 *(1.45)*	-	5 *(72.52)*
H01	0.1 - 1.0 *(1.45 - 14.50)*	0.10 *(1.45)*	0.2 - 1.0 *(2.90 - 14.50)*	12 *(174.05)*
H02	0.1 - 1.5 *(1.45 - 21.76)*	0.10 *(1.45)*	0.4 - 1.0 *(5.80 - 14.50)*	12 *(174.05)*
H03	0.2 - 2.6 *(2.90 - 37.71)*	0.30 *(4.35)*	0.4 - 1.5 *(5.80 - 21.75)*	12 *(174.05)*
H04	0.2 - 3.6 *(2.90 - 52.21)*	0.30 *(4.35)*	0.4 - 1.5 *(5.80 - 21.75)*	12 *(174.05)*
H07	0.5 - 7.0 *(7.25 - 101.53)*	0.50 *(7.25)*	1.5 - 6.0 *(21.75 - 87.02)*	12 *(174.05)*
H10	0.5 - 10.0 *(7.25 - 145.04)*	0.80 *(11.60)*	2.0 - 8.0 *(29.00 - 116.03)*	25 *(362.6)*
H15	1.0 - 15.0 *(14.50 - 217.71)*	1.00 *(14.50)*	2.5 - 10.0 *(36.25 - 145.03)*	25 *(362.6)*
H30	5.0 - 25.0 *(72.52 - 362.6)*	2.50 *(36.26)*	2.5 - 10.0 *(36.25 - 145.03)*	35 *(507.63)*

*Minimum differential increases with setpoint (Graphs available on request)
† rising pressure for MG series; falling pressure for ME series
Ψ approx 50 mm Hg to 160 mm Hg. Scale calibrated in mm Hg for this range only.

How to order MG / ME series high range pressure switches.

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Model	Range Code	Range Scale	Pressure Housing	Diaphragm	Enclosure
MG - Fixed Differential Pressure Switch ME - Adj. Differential Pressure Switch	H - High range Pressure Switch	C - Calibrated	A - Aluminium B - Brass S - SS316	0 - Neoprene 1 - PTFE	0 - IP 40

eg. A fixed differential pressure switch, high pressure range from 0.1-1.0 bar in calibrated style with brass pressure housing & a teflon diaphragm shall be specified by

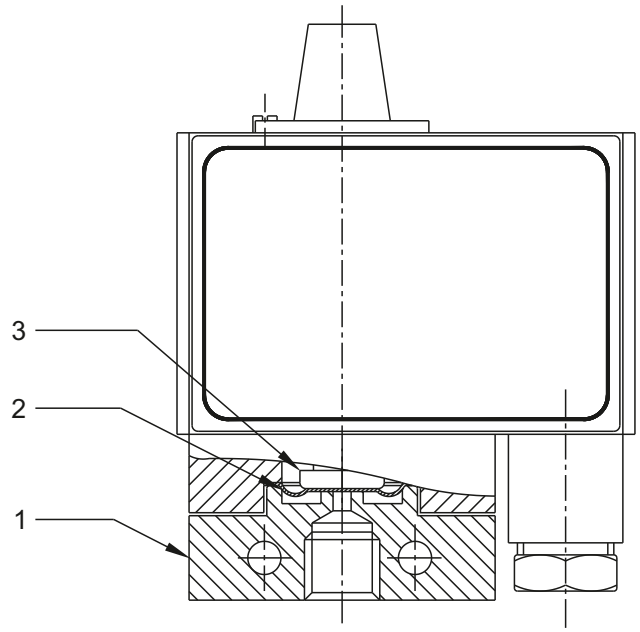
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
MG	H01	C	B	1	0

Please specify full model number to avoid ambiguity. If only the first two groups are specified while ordering, calibrated switches with standard wetted parts will be supplied.

MN / MA HIGH RANGE PRESSURE SWITCHES



PRESSURE CAPSULE DETAILS

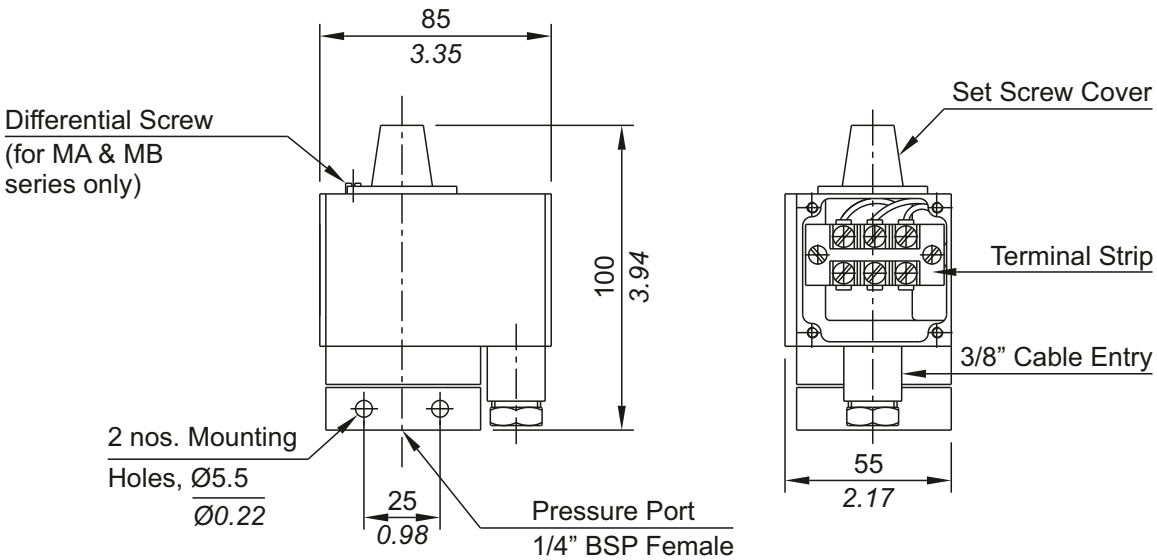


No. Description

1. *Pressure Housing*
2. *Diaphragm*
3. Plunger

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



APPROX. DIMENSIONS IN mm / *inches*

HIGH RANGE PRESSURE SWITCHES MN / MA

General information:
MN / MA series pressure switches are housed in pressure die cast aluminium powder coated enclosure and are recommended for panel mounting or outdoor service based on the type of enclosure opted for. The repeat accuracy is better than ± 1% FSR. A 3/8" cable entry is provided for cables and a terminal strip suitable for wired ends is provided inside the enclosure. Pressure port is ¼ " BSPF standard.

Features:
- Compact
- Separate chamber for working parts
- Wide band adjustable differential in MA series
- Choice of wetted parts to suit working media
- Electrical rating : 5A, 250 VAC; 0.2 A, 250VDC (res.)
- Proof pressure available can be 4 times MWP (optional)
- Pressure port: ¼" BSPF

Some Applications : Used in boilers, water treatment plants, fire fighting systems, compressors, etc.

Range Selection Table

Range Code	Range † bar *(psi)*	*Approximate Maximum Differential bar *(psi)*	* Adjustable Differential bar *(psi)*	Maximum Working Pressure bar *(psi)*
		MN	MA	
LP	0.067 - 0.213 Ψ *(0.96 - 3.09)*	0.02 *(0.30)*	-	5 *(72.52)*
LP5	0.1 - 0.5 *(1.45 - 7.25)*	0.10 *(1.45)*	-	5 *(72.52)*
H01	0.1 - 1.0 *(1.45 - 14.50)*	0.1 *(1.45)*	0.2 - 1.0 *(2.90 - 14.50)*	12 *(174.05)*
H02	0.1 -1.5 *(1.45 - 21.76)*	0.20 *(2.90)*	0.3 - 1.0 *(4.35 - 14.50)*	12 *(174.05)*
H03	0.2 - 2.6 *(2.90 - 37.71)*	0.20 *(2.90)*	0.3 - 1.5 *(4.35 - 21.76)*	12 *(174.05)*
H04	0.2 - 3.6 *(2.90 - 52.21)*	0.30 *(4.35)*	0.4 - 1.5 *(5.80 - 21.76)*	12 *(174.05)*
H07	0.5 - 7.0 *(7.25 - 101.53)*	0.50 *(7.25)*	1.0 - 6.0 *(14.50 - 87.02)*	12 *(174.05)*
H10	0.5 - 10.0 *(7.25 - 145.04)*	0.50 *(7.25)*	2.0 - 8.0 *(29.00 - 116.03)*	25 *(362.6)*
H15	1.0 - 15.0 *(14.50 - 217.71)*	1.50 *(21.75)*	2.5 - 10.0 *(36.25 - 145.04)*	25 *(362.6)*
H30	5.0 - 25.0 *(72.52 - 362.6)*	2.50 *(36.25)*	3.0 - 10.0 *(43.51 - 145.04)*	35 *(507.63)*

*Minimum differential increases with setpoint (Graphs available on request)
† rising pressure for MN series; falling pressure for MA series
Ψ approx 50 mm Hg to 160 mm Hg. Scale calibrated in mm Hg for this range only

How to order MN / MA high range pressure switches.

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Model	Range Code	Range Scale	Pressure Housing	Diaphragm	Enclosure
MN - Fixed differential Switch MA - Adjustable Differential Switch	H - High Pressure ranges	U - Uncalibrated C - Calibrated	A - Aluminium B - Brass S - SS316	0 - Neoprene 1 - PTFE	0 - Standard (IP 54) 1 - IP65 as per IS 60529
			for special wetted parts through chemical seals, please refer pages 296 - 302 and specify in text accordingly.		

eg. A fixed differential switch, high pressure range from 0.1-1.0 bar in calibrated style with brass pressure housing & a teflon diaphragm & a standard enclosure shall be specified by

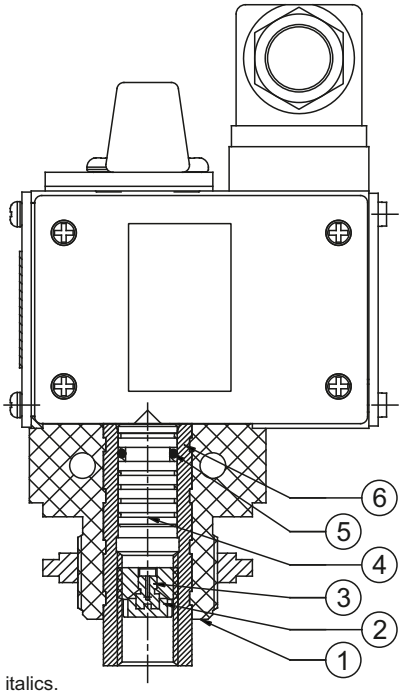
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
MN	H01	C	B	1	0

Please specify full model number to avoid ambiguity. If only the first two groups are specified while ordering, uncalibrated switches with standard wetted parts and a standard enclosure will be supplied.

DN / DA HYDRAULIC PRESSURE SWITCHES



PRESSURE CAPSULE DETAILS

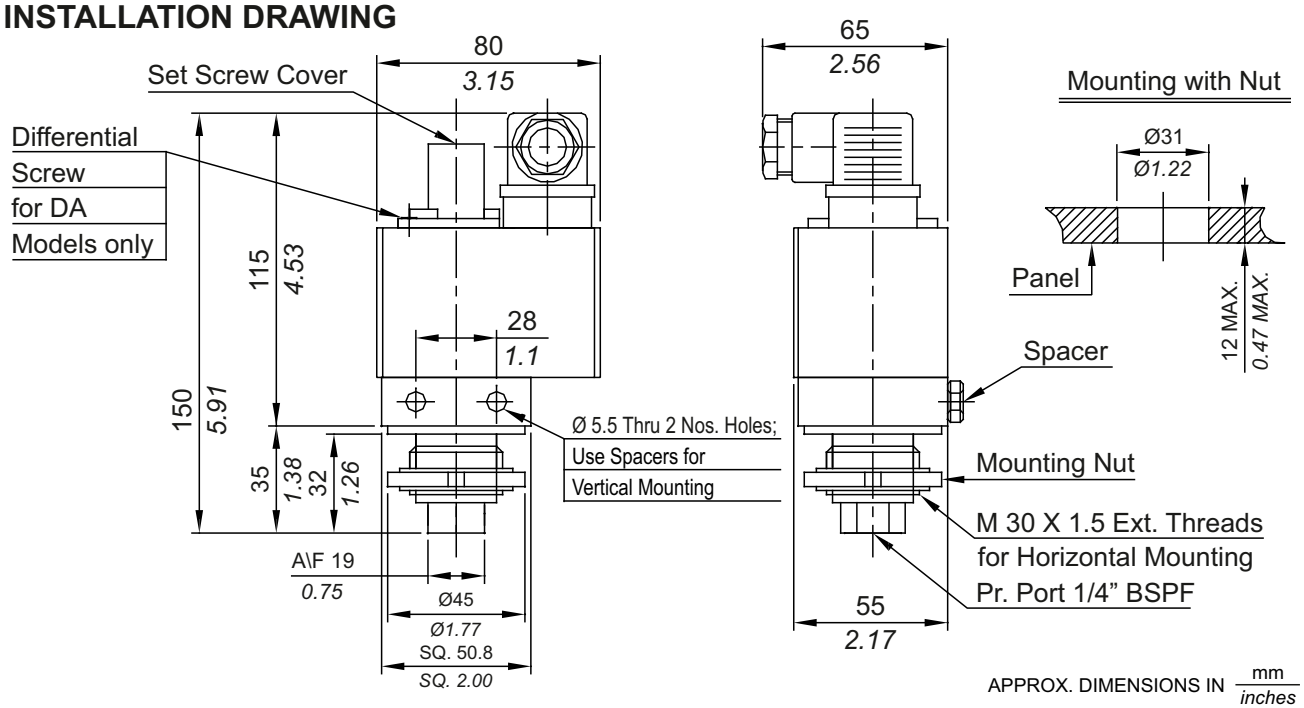


No. Description

1. Pressure Housing (Glass-filled Nylon with Metallic insert)
2. Surge arrestor
3. Surge reducer
4. Piston
5. O-ring
6. Metallic Insert

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



APPROX. DIMENSIONS IN mm / *inches*

HYDRAULIC PRESSURE SWITCHES DN / DA

General information:
DN / DA series pressure switches are housed in pressure die cast aluminium powder coated enclosure and are recommended for panel / line mounting or outdoor service. The repeat accuracy is better than ±1 % FSR. A connector to DIN 43650 is provided for electrical wiring. Pressure port is ¼" BSPF standard.

Features:
- Compact
- Separate chamber for working parts
- Choice of wetted parts to suit working media
- Wide band adjustable differential in DA series.
- Electrical rating : 5A,250VAC;0.2A,250VDC(res.)
- Pressure port :¼" BSPF

Some Applications : Used for hydraulic applications like loading and unloading in CNC, VMC machining centres, chuck clamping, etc.

Range Selection Table

	DN		DA	
Range Code	**Range † bar *(psi)***	***Approximate Maximum Differential bar *(psi)***	***Adjustable Differential bar *(psi)***	**Maximum Working Pressure bar *(psi)***
040	3 - 40 *(43.51 - 580.15)*	7 *(101.52)*	5 - 10 *(72.52 - 145.04)*	80 *(1160.30)*
100	10 - 100 *(145.04 - 1450.38)*	15 *(217.55)*	10 - 20 *(145.04 - 290.08)*	120 *(1740.45)*
200	7 - 200 *(101.52 - 2900.76)*	30 *(435.113)*	18 - 30 *(261.06 - 435.11)*	200 *(2900.76)*
400	100 - 400 *(1450.38 - 5801.51)*	60 *(870.22)*	30 - 40 *(435.11 - 580.15)*	400 *(5801.51)*

* minimum differential rises with setpoint (Graphs available on request)
† rising pressure for DN series; falling pressure for DA series.

Wetted Parts Table for DN / DA Series.

	Standard	Optional	Special
Piston	EN8	S.S.	for special wetted parts through chemical seals, please refer page 296,297 & 298 and specify in text accordingly.
*Backup ring	PTFE	PTFE	
O ring	Viton	Viton	
Pressure housing	Glass filled Nylon with Aluminium	Glass filled Nylon with Brass	
Surge suppressor	EN8	Brass	
Surge reducer	Brass	Brass	

* Backup ring is not used in all pressure ranges. Please contact sales office for details.

How to order DN / DA series hydraulic pressure switches.

Group 1	Group 2	Group 3	Group 4	Group 5
Model	Range	Range Scale	Wetted Parts	-
DN - Fixed diff. Hydraulic Pressure switch DA - Adjustable diff. Hydraulic Pressure Switch	Please select as per range code table	U - uncalibrated C - calibrated	S - for Standard Wetted parts. B - for optional wetted parts mentioned in table above. X - Specify wetted parts in text as per wetted parts table above.	Reserved for non Standard modifications. Code will be given by company

eg. A fixed differential hydraulic pressure switch, pressure range from 5 to 40 bar, in uncalibrated style and standard wetted parts shall be specified by

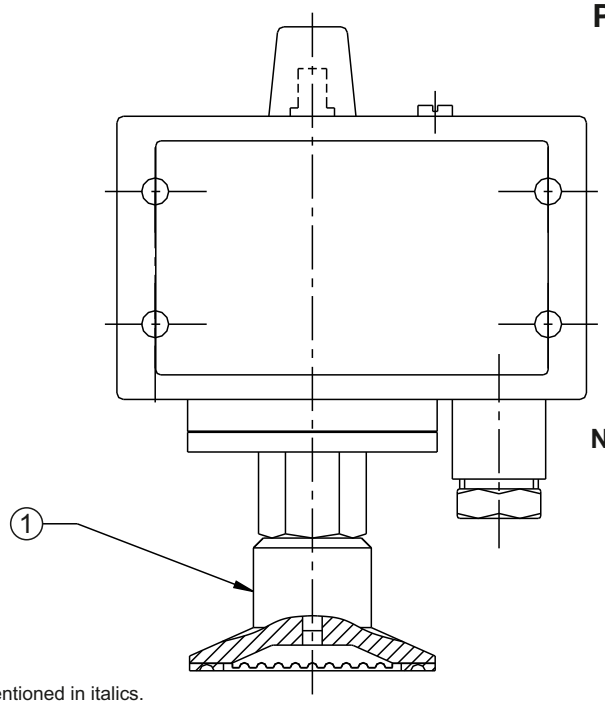
Group 1	Group 2	Group 3	Group 4	Group 5
DN	040	U	S	-

Please specify full model number to avoid ambiguity. If only the first two groups are specified while ordering, pressure switches with standard wetted parts will be supplied.

MG / ME HYGIENE RANGE PRESSURE SWITCHES



PRESSURE CAPSULE DETAILS

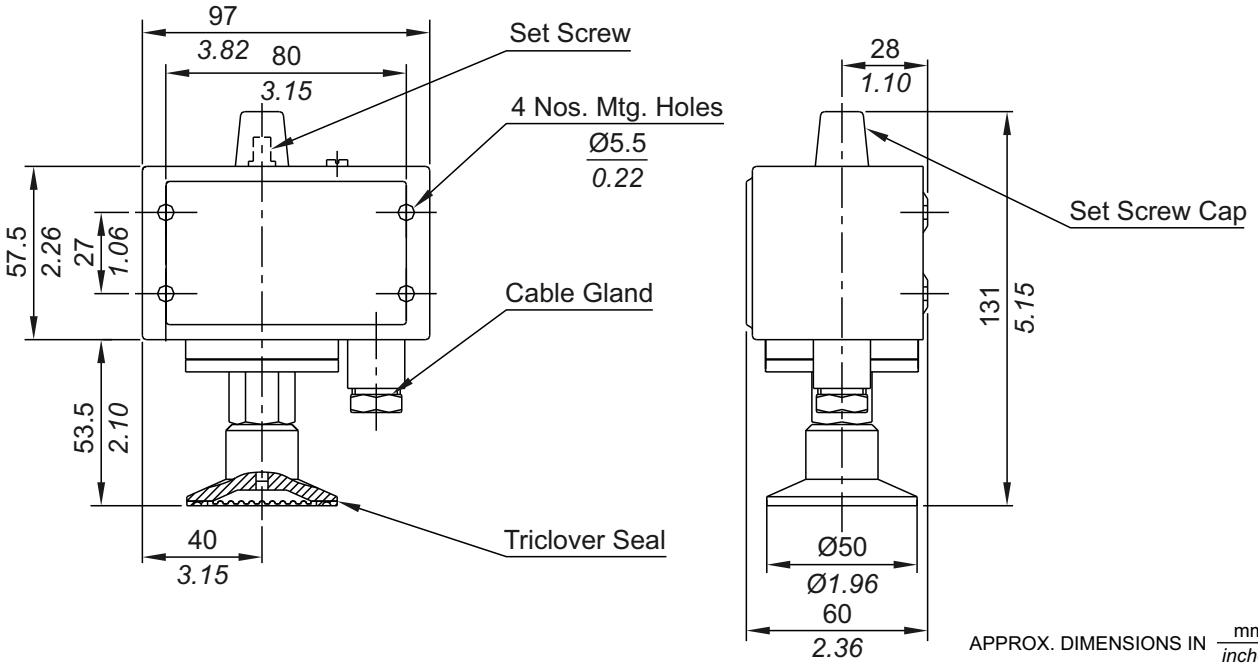


No. Description

1. Triclover seal (SS316L)

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



APPROX. DIMENSIONS IN mm / *inches*

HYGIENE RANGE PRESSURE SWITCHES MG / ME

General information:
MG series pressure switches are housed in pressed steel powder coated enclosure and are recommended for panel mounting or indoor service. The repeat accuracy is better than ± 1.5 % FSR. A 3/8" cable entry is provided for cables and a terminal strip suitable for wired ends is provided inside the enclosure. Pressure port is a triclover seal.

Features:
- Compact
- Electrical rating : 5A, 250 VAC; 0.2 A, 250VDC (res.)
- Pressure port: Triclover / 1/4" BSPF

Some Applications : Used in pharma industries, food industry, bulk drugs, dairy products, etc.

Range Selection Table

	MG	ME	
Range Code	**Range † bar *(psi)***	***Approximate Maximum Differential bar *(psi)***	***Adjustable Differential bar *(psi)***	**Maximum Working Pressure bar *(psi)***
H01	0.1 - *1.0* *(1.45 - 14.50)*	0.10 *(1.45)*	0.25 - 1.5 *(3.62 - 21.75)*	12 *(171.43)*
H02	0.1 - *1.5* *(1.45 - 21.76)*	0.12 *(1.74)*	0.28 - 1.5 *(4.06 - 21.75)*	12 *(171.43)*
H03	0.2 - 2.6 *(2.86 - 37.14)*	0.20 *(2.86)*	0.3 - 1.5 *(4.29 - 21.43)*	12 *(171.43)*
H04	0.2 - 3.6 *(2.86 - 51.43)*	0.20 *(2.86)*	0.4 - 1.5 *(5.80 - 21.43)*	12 *(171.43)*
H07	0.5 - 7.0 *(7.14 - 100.00)*	0.40 *(5.71)*	1.0 - 6.0 *(14.29 - 85.71)*	12 *(171.43)*
H10	0.5 - 10.0 *(7.14 - 142.86)*	0.60 *(8.57)*	2.0 - 8.0 *(29.00 - 114.29)*	25 *(357.14)*
H15	1.0 - 15.0 *(14.29 - 214.29)*	0.60 *(8.57)*	2.5 - 10.0 *(36.25 - 142.86)*	25 *(357.14)*

*Minimum differential increases with setpoint (Graphs available on request)
† rising pressure for MG series; falling pressure for ME series

How to order MG/ME series high range triclover pressure switches.

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Model	Range Code	Range Scale	Pressure Housing	Triclover Size	Enclosure
MG - Fixed Differential Triclover Pressure Switch ME - Adj. Differential Triclover Pressure Switch	H - High range Pressure Switch	C - Without Knob K - With Knob	T - Triclover SS316L S - SS316L (1/4" BSPF Pressure port) A - Aluminium (1/4" BSPF Pressure port)	1 - No Triclover (PTFE diaphragm) B - 1.5" OD C - 2" OD	0 - IP 40

eg. A fixed differential triclover pressure switch, high pressure range from 0.5 -7.0 bar with knob style with triclover pressure housing with 1 & 1/2" triclover size shall be specified by

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
MG	H07	K	T	B	0

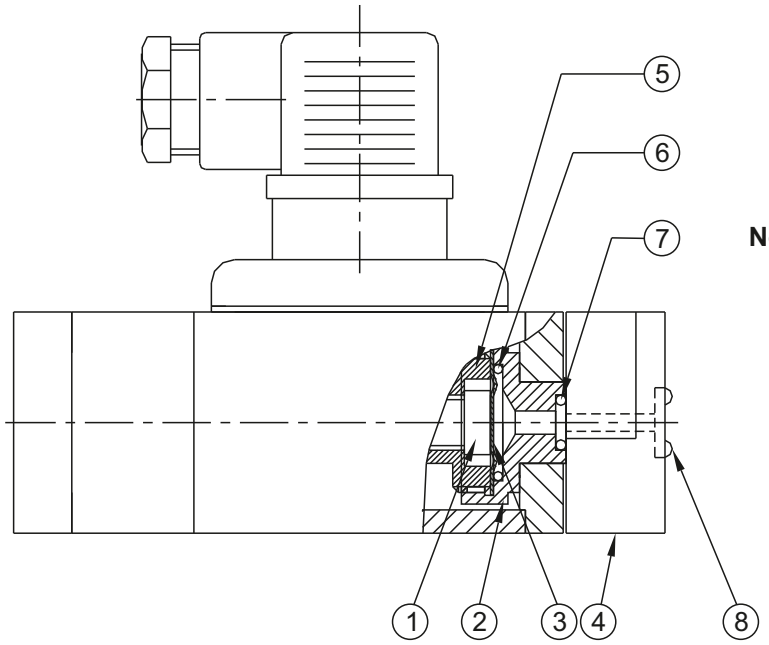
Please specify full model number to avoid ambiguity. If only the first two groups are specified while ordering, calibrated switches with standard wetted parts will be supplied.

HM HIGH RANGE PRESSURE SWITCHES





PRESSURE CAPSULE DETAILS

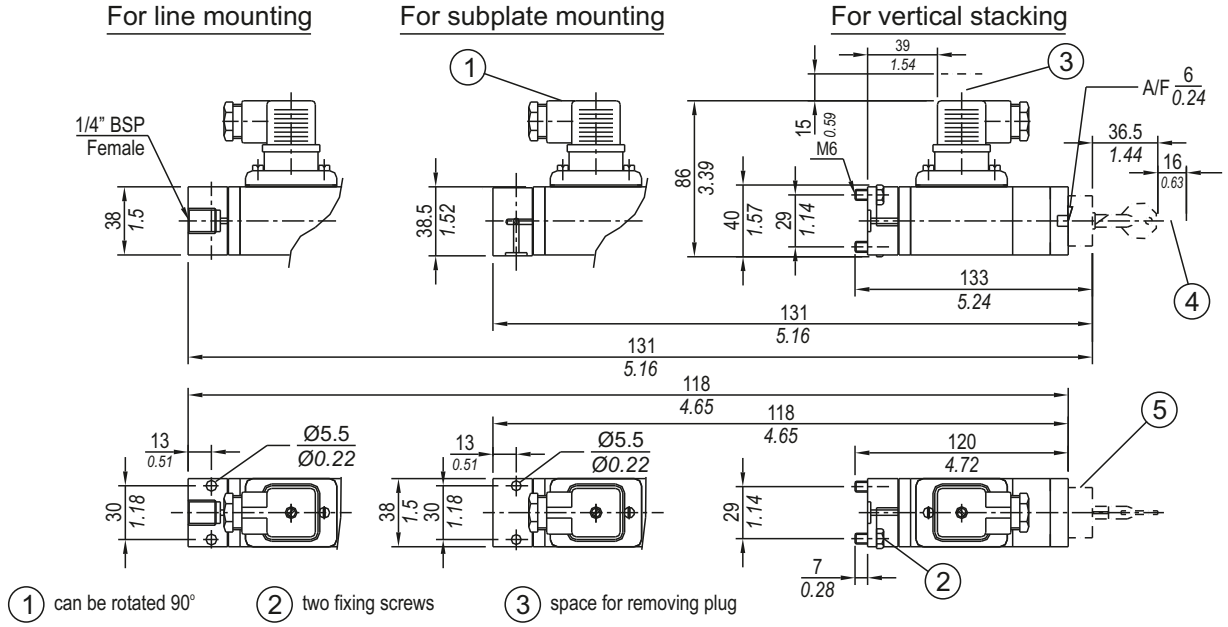


No. Description

1. Plunger
2. *Pressure housing*
3. *Diaphragm*
4. *Base*
5. Disc
6. *High pressure seal*
7. *Pressure housing seal*
8. *Base seal* (O ring)
   (N.A for line mounting style)

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



APPROX. DIMENSIONS IN mm / *inches*

HIGH RANGE PRESSURE SWITCHES HM

General information:
HM series pressure switches have a machined aluminium powder coated enclosure and are recommended for manifold mounting hydraulic applications, where setpoints are low but working pressures are high. The repeat accuracy is better than ±2 % FSR. A connector to DIN 43650 is provided for wiring Three mounting styles are available.

Features:
- Compact
- Lightweight
- Three mounting styles
- low on-off differentials
- low setpoints with high working pressures
- Lockable protective cap to avoid tampering (optional)
- Choice of wetted parts to suit working media
- Electrical rating : 5A, 250 VAC; 0.2 A, 250 VDC (res.)

Some Applications : Used in high/low pressure alarms in CNC machines, manifolds/in stacks, etc.

Range Selection Table

Range Code	Range (falling pressure) bar *(psi)*	*Approximate Maximum Differential bar *(psi)*	Maximum Working Pressure bar *(psi)*
H01	0.2 - 1.0 *(2.90 - 14.50)*	0.20 *(2.90)*	12 *(174.05)*
H04	0.2 - 3.6 *(2.90 - 52.21)*	0.40 *(5.80)*	12 *(174.05)*
H07	0.5 - 7.0 *(7.25 - 101.52)*	0.40 *(5.80)*	12 *(174.05)*
H10	0.5 - 10.0 *(7.25 - 145.04)*	1.00 *(14.50)*	25 *(362.6)*
H15	1.0 - 15.0 *(14.50 - 217.71)*	1.00 *(14.50)*	25 *(362.6)*
H30	5.0 - 25.0 *(72.52 - 362.6)*	2.50 *(36.26)*	35 *(507.63)*

*differential rises with setpoint (Graphs available on request)

Wetted Parts Table for HM High Series.

	Standard	Optional
Pressure Housing	Aluminium	Brass
Diaphragm	Neoprene	PTFE
High Pressure Seal	Nitrile	Viton
Pressure Housing Seal	Nitrile	Viton
Base	M.S.	Brass
Base Seal	Nitrile	Viton

How to order HM High series pressure switches.

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Model	Range Code	Base Type	Protective Cap	Wetted Parts	Enclosure
HM - High range Pressure Switch	H - High Range Pressure Switch	S - for Subplate mounting. L - for line Mounting V - for vertical Stacking	U - without any protective cap P - with a lockable protective cap	M - for Standard Wetted parts. B - for optional wetted parts mentioned in table above X - Specify wetted parts in text as per wetted parts	0 - IP 65

eg. A high range pressure switch, pressure range from 0.2 to 3.6 bar, as a vertical element with a lockable protective cap & standard wetted parts with a standard enclosure shall be specified by

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
HM	H04	V	P	M	0

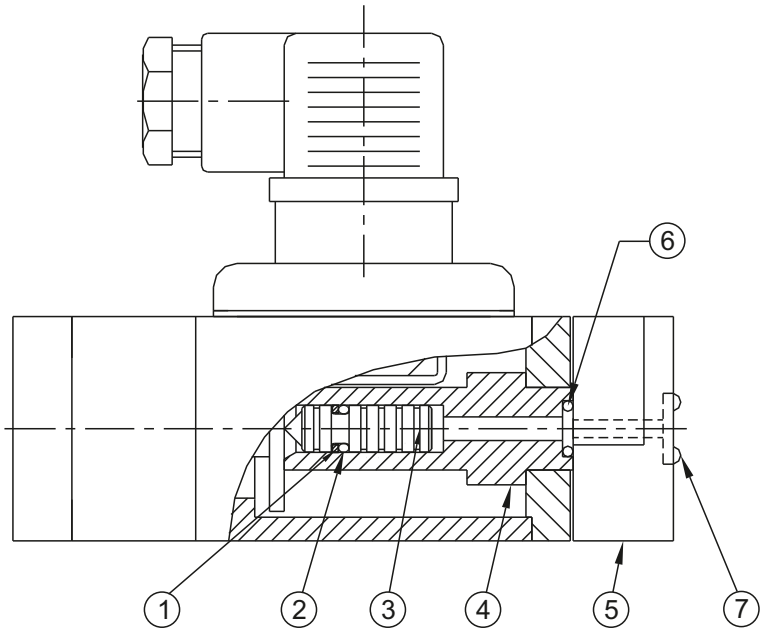
Please specify full model number to avoid ambiguity. If only the first two groups are specified while ordering, pressure switches with standard wetted parts will be supplied.

HM/HO HYDRAULIC PRESSURE SWITCHES





PRESSURE CAPSULE DETAILS

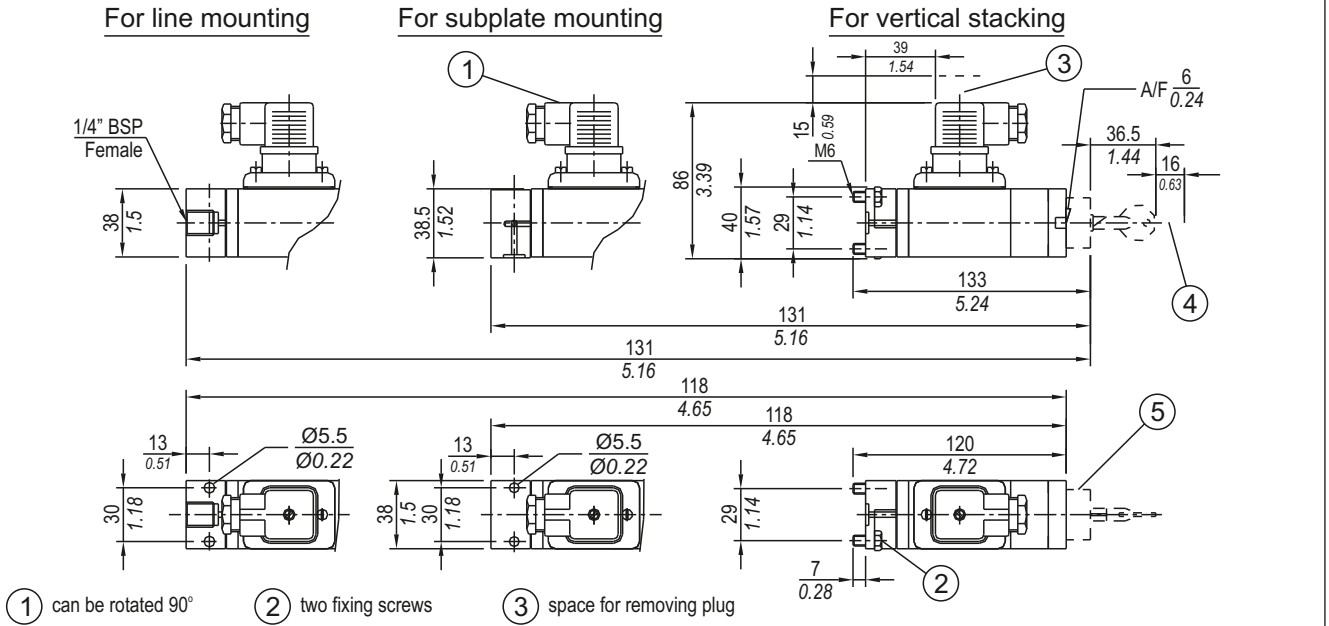


No. Description

1. Backup ring
2. *Piston seal*
3. *Piston*
4. *Pressure housing*
5. *Base*
6. *Pressure housing seal*
7. *Base seal* (O ring)
   (N.A for line mounting style)

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



HYDRAULIC PRESSURE SWITCHES HM/HO

General information:
HM series pressure switches have a machined aluminium powder coated enclosure and are recommended for manifold mounting hydraulic applications. When fitted with different types of chemical seals these can also be used for various processes The repeat accuracy is better than ±1 % FSR. A connector to DIN 43650 is provided for wiring.

Features:
- Compact
- Lightweight
- Three mounting styles
- Lockable protective cap to avoid tampering (optional)
- Choice of wetted parts to suit working media
- Electrical rating : 5A, 250 VAC; 0.2 A, 250 VDC (res.)

Some Applications : Used in compressors, hydraulic power packs, manifolds/stacks with sandwich plates, etc.

Range Selection Table

Range Code	Range (falling pressure) bar *(psi)*	*Approximate Maximum Differential bar *(psi)*	Maximum Working Pressure bar *(psi)*
040	3 - 40 *(43.51 - 580.15)*	5 *(72.52)*	200 *(2900.76)*
100	10 - 100 *(145.04 - 1450.38)*	12 *(174.05)*	200 *(2900.76)*
200	7 - 200 *(101.52 - 2900.76)*	24 *(348.09)*	200 *(2900.76)*
400	100 - 400 *(1450.38 - 5801.51)*	40 *(580.15)*	400 *(5801.51)*

*differential rises with setpoint (Graphs available on request)

Wetted Parts Table for HM Hydraulic Series.

	Standard	Optional	Special
Piston	EN8	S.S.	for special wetted parts through chemical seals, please refer page 330,331 & 332 and specify in text accordingly.
Piston Seal	Viton	Viton	
Pressure housing	Aluminium	Brass/ M.S.	
Housing Seal	Nitrile	Viton	
Base	M.S.	Brass	
Base Seal	Nitrile	Viton	

How to order HM Hydraulic Series pressure switches.

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Model	Range Code	Base Type	Protective Cap	Wetted Parts	Enclosure*
HM - Hydraulic Pressure Switch HO - Hydraulic Pressure Switch	Hydraulic Pressure Range	S - for Subplate mounting. L - for line Mounting V - for vertical Stacking	U - without any protective cap P - with a lockable protective cap	M - for Standard Wetted parts. B - for Brass pressure housing, brass base, SS piston. All seals of Viton only X - Specify wetted parts in text as	0 - IP 65

*HM series flameproof versions will be available with 1/4" BSPF threading arrangement only. For corrosive media, a separate chemical seal can be provided.
eg. A hydraulic pressure switch, pressure range from 5 to 40 bar, as a vertical element with a lockable protective cap & standard wetted parts with a standard enclosure shall be specified by

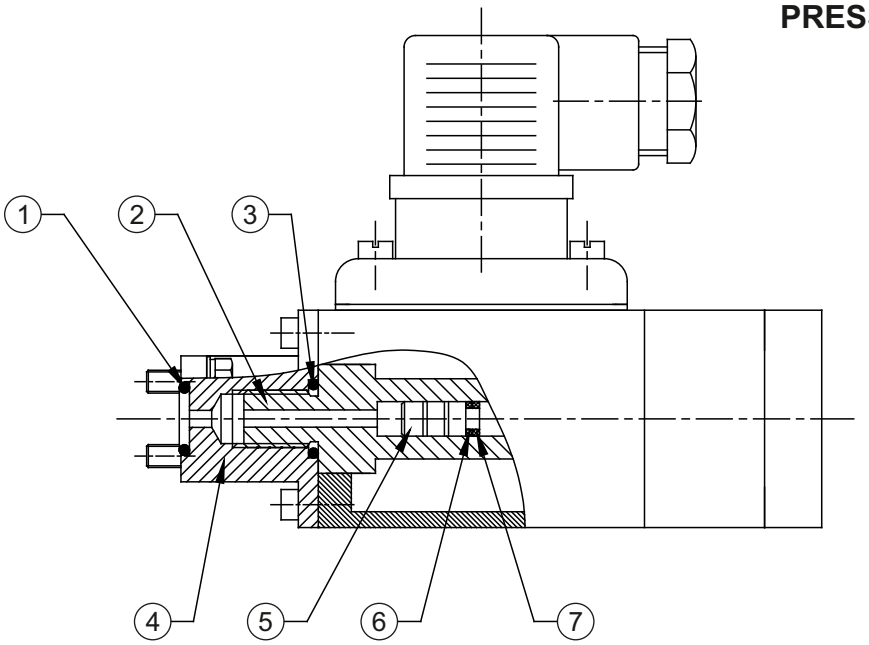
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
HM	040	V	P	M	0

Please specify full model number to avoid ambiguity. If only the first two groups are specified while ordering, pressure switches with standard wetted parts will be supplied.

HM/HO350 HYDRAULIC PRESSURE SWITCHES



PRESSURE CAPSULE DETAILS



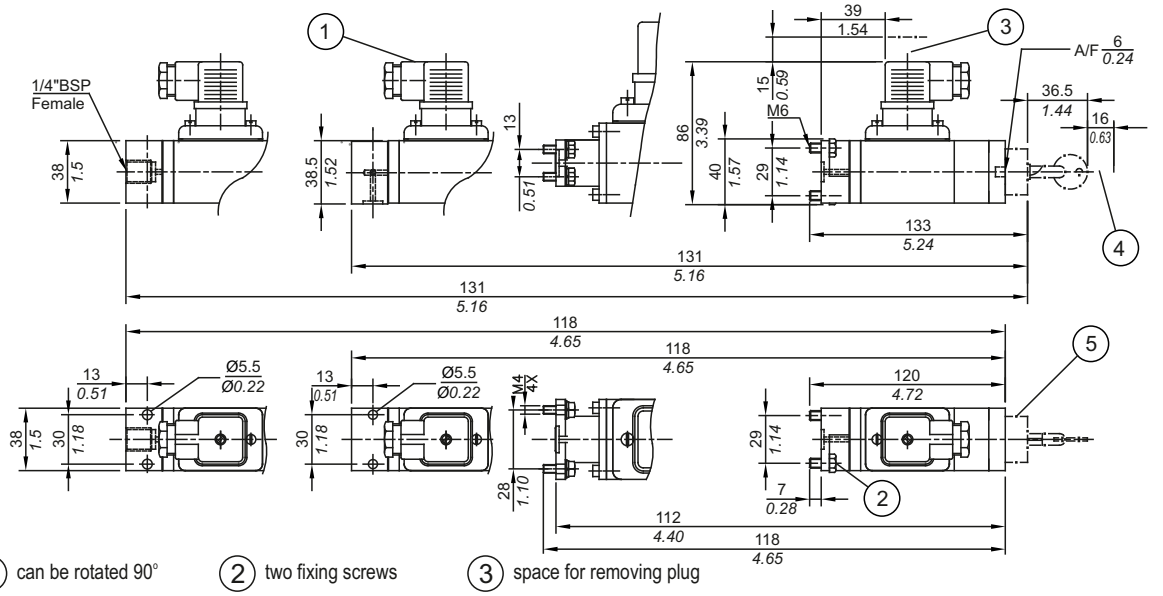
No. Description

1. *O Ring*
2. *Pressure Housing*
3. *Sealing Ring*
4. *Block*
5. *Piston*
6. *O Ring*
7. Backup ring

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING

For line mounting | For subplate mounting | For Vert. Stack. CD 13x28 | For vert. stack. CD 29 Diagonally



(1) can be rotated 90° (2) two fixing screws (3) space for removing plug

(4) space for removing key (5) lockable protective cap

APPROX. DIMENSIONS IN mm / *inches*

HYDRAULIC PRESSURE SWITCHES HM/HO350

GENERAL INFORMATION :
HM series pressure switches have a pressure die-cast aluminium powder coated enclosure and are recommended for manifold mounting hydraulic applications. The repeat accuracy is better than ± 1% FSR. A connector to DIN 43650 is provided for wiring. Mainly intended for high pressure hydraulic presses.

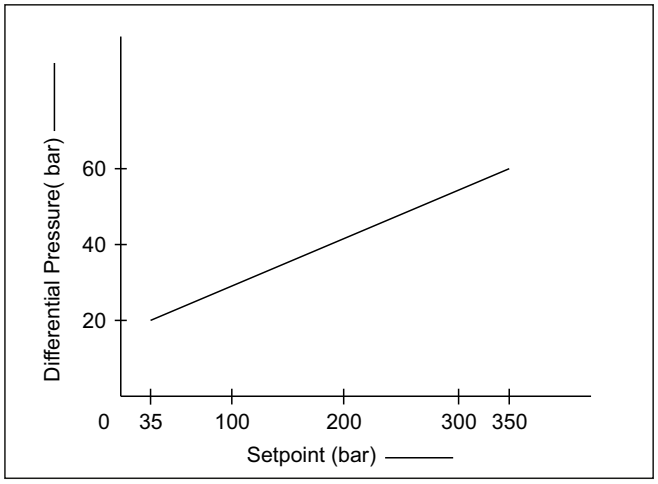
FEATURES :
- Compact
- Lightweight
- Three mounting styles
- Lockable protective cap to avoid tampering (optional)
- Choice of wetted parts to suit working media
- Electrical rating : 5A, 250VAC; 0.2A, 250 VDC (res.)

Some Applications : Used in high/low pressure alarms in CNC machines, compressors, hydraulic power packs, manifolds/stacks with sandwich plates, etc.

Range Selection Table

Range Code	Range (rising pressure) bar (psi)	Approximate Maximum Differential* bar *(psi)*	Maximum Working Pressure bar *(psi)*
HM350	35 - 350 *(507.63 - 5076.32)*	60 *(870.22)*	500 *(7251.89)*

* Differential rises with setpoint



How to order HM350 Hydraulic pressure switches

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Model	Range Code	Base Type	Protective Cap	Wetted Parts	Enclosure
HM 350- Hydraulic Pressure Switch HO 350- Hydraulic Pressure Switch	350	S - for Subplate mounting. L - for line Mounting V - for vertical Stacking (2 mounting holes) R - for vertical Stacking (4 mounting holes)	U - without any protective cap P - with a lockable protective cap	M - for Standard Wetted parts	0 - IP 65

Eg. A hydraulic pressure switch, pressure range from 35 bar to 350 bar, as a subplate mounting element without a lockable protective cap and standard wetted parts with a standard enclosure shall be specified by

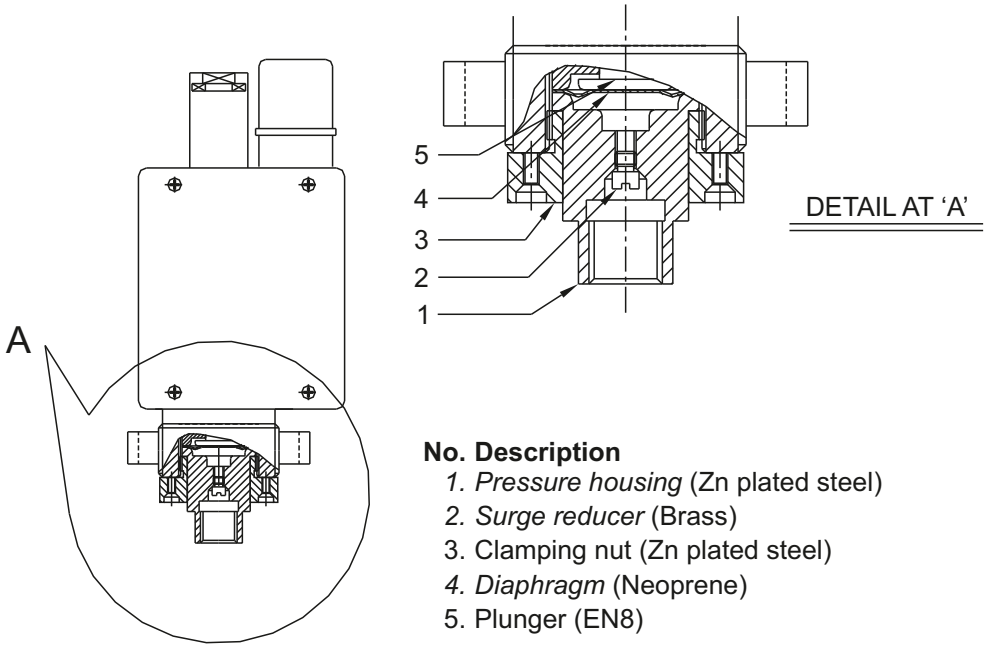
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
HM	350	S	U	M	0

Please specify full model number to avoid ambiguity. If only the first two groups are specified while ordering, uncalibrated switches with standard wetted parts and enclosures will be supplied.

DT HIGH RANGE PRESSURE SWITCHES



PRESSURE CAPSULE DETAILS

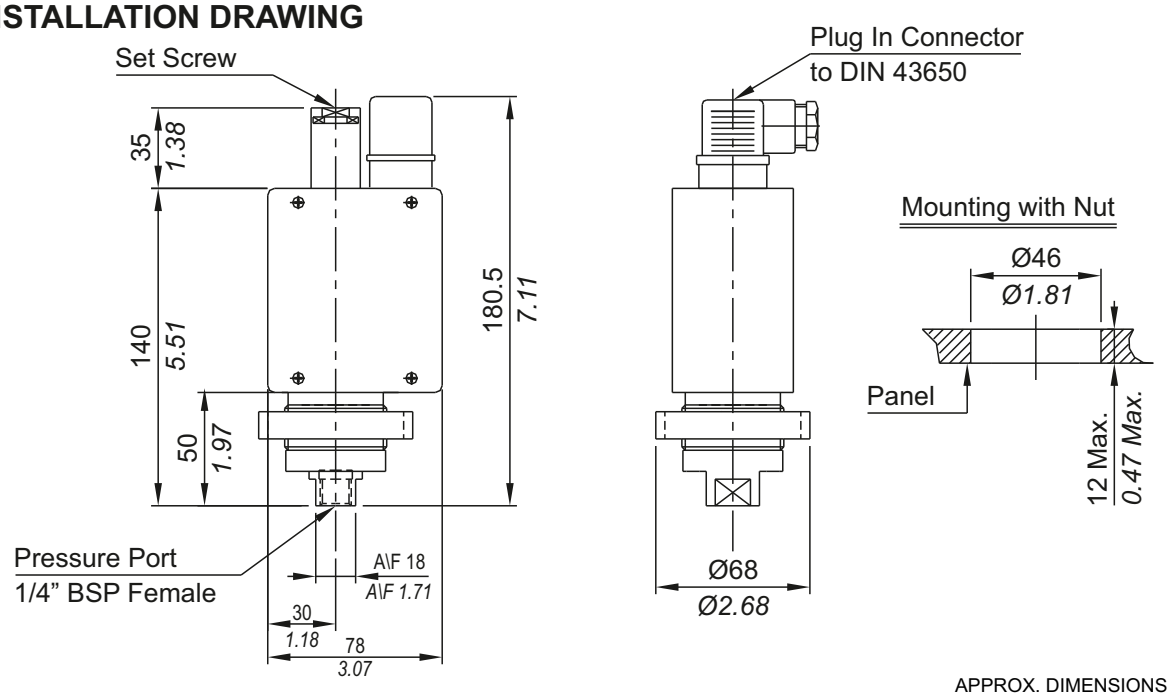


No. Description

1. *Pressure housing* (Zn plated steel)
2. *Surge reducer* (Brass)
3. Clamping nut (Zn plated steel)
4. *Diaphragm* (Neoprene)
5. Plunger (EN8)

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



APPROX. DIMENSIONS IN mm / *inches*

HIGH RANGE PRESSURE SWITCHES DT

General information:
DT series pressure switches have a cast aluminium enclosure (IP54) and are recommended for panel / line mounted hydraulic / pneumatic applications. The repeat accuracy is better than ±2 % FSR. An electrical connector to DIN 43650 is provided for wiring. Pressure port is ¼" BSPF standard.

Features:
- Robust construction
- 15 A switching possible (optional)
- Panel mounting
- Protective lock to avoid tampering (optional)
- Electrical rating : 5A,250VAC;0.2A,250VDC(RES.) (optionally 15 A, 250 VAC)

Some Applications : Used in high pressure power packs, press application, space and defence, etc.

Range Selection Table

Range Code	Range (rising pressure) bar *(psi)*	*Approximate Maximum Differential bar *(psi)*	Maximum Working Pressure bar *(psi)*
10	1 - 10 *(14.50 - 145.04)*	1 *(14.50)*	15 *(217.71)*
15	2 - 15 *(29.00 - 217.71)*	2 *(29.00)*	15 *(217.71)*

*differential rises with setpoint (Graphs available on request)

How to order DT high range pressure switches.

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Model	Range Code	Microswitch	Wetted Parts	Protective Lock	
DT - High Range Pressure Switch	Please select as per range code table	C - rated at 5A, 250 VAC (res.) H - rated at 15A, 250 VAC (res.)	S - Standard	U - without any lock P - with a protective lock	Reserved for non standard modifications. Code will be given by company

eg. A hydraulic pressure switch, pressure range from 1 to 10 bar, with a standard 5 A,250 VAC microswitch, standard wetted parts and a protective lock shall be specified by

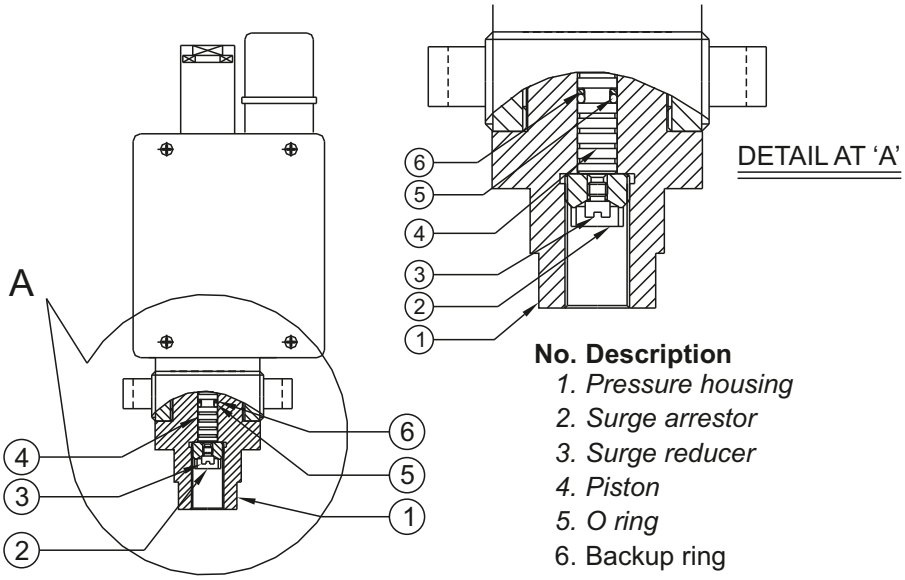
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
DT	10	C	S	P	-

Please specify full model number to avoid ambiguity. If only the first two groups are specified while ordering, pressure switches without a protective lock & with standard wetted parts will be supplied.

DT HYDRAULIC PRESSURE SWITCHES



PRESSURE CAPSULE DETAILS

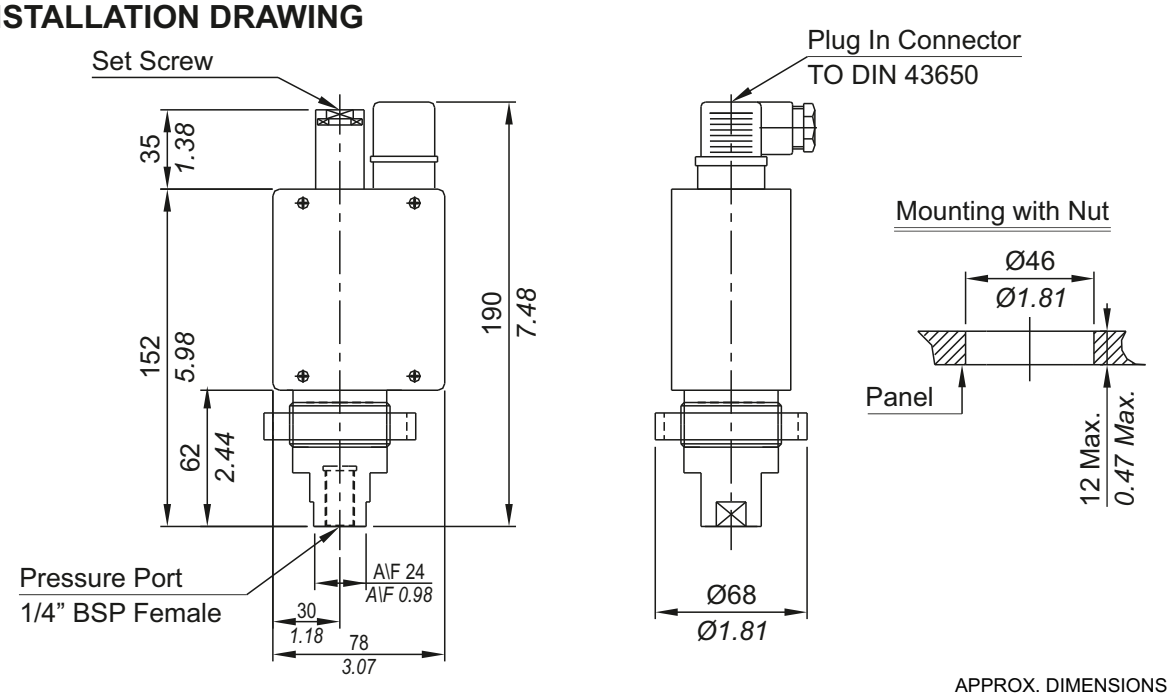


No. Description

1. *Pressure housing*
2. *Surge arrestor*
3. *Surge reducer*
4. *Piston*
5. *O ring*
6. Backup ring

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



APPROX. DIMENSIONS IN mm / *inches*

HYDRAULIC PRESSURE SWITCHES DT

General information:
DT series pressure switches have a cast aluminium enclosure (IP54) and are recommended for panel / line mounted hydraulic applications. The repeat accuracy is better than ± 2 % FSR. An electrical connector to DIN 43650 is provided for wiring. Pressure port is ¼" BSPF standard.

Features:
- Robust construction
- 15 A switching possible (optional)
- Panel mounting
- Protective lock to avoid tampering (optional)
- Choice of wetted parts to suit working media
- Electrical rating : 5A, 250 VAC; 0.2 A, 250 VDC (res.) (Optionally 15 A, 250 VAC)

Some Applications : Used for heavy duty machine tool applications, low on-off differential, better sensitivity, high electrical rating(15A), etc.

Range Selection Table

Range Code	Range (rising pressure) bar *(psi)*	*Approximate Maximum Differential bar *(psi)*	Maximum Working Pressure bar *(psi)*
20A	4 - 20 *(58.01 - 290.08)*	3 *(43.51)*	200 *(2900.76)*
40	5 - 40 *(72.52 - 580.15)*	5 *(72.52)*	80 *(1160.3)*
100	10 - 100 *(145.04 - 1450.38)*	12 *(174.05)*	120 *(1740.45)*
200	7 - 200 *(101.52 - 2900.76)*	24 *(348.09)*	200 *(2900.76)*
400	100 - 400 *(1450.38 - 5801.51)*	40 *(580.15)*	400 *(5801.51)*
600	60 - 600 *(870.22 - 8702.26)*	90 *(1305.34)*	600 *(8702.26)*

*differential rises with setpoint (Graphs available on request)

Wetted Parts Table for DT Series.

	Standard	Optional	Special
Piston	EN8	S.S.	for special wetted parts through chemical seals, please refer page 330,331 & 332 and specify in text accordingly.
*Backup ring	PTFE	PTFE	
O ring	Viton	Viton	
Pressure housing	Aluminium	Brass	
Surge suppressor	EN8	Brass	
Surge reducer	Brass	Brass	

* Backup ring is not used in all pressure ranges. Please contact sales office for details.

How to order DT series hydraulic pressure switches.

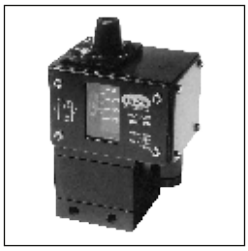
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Model	Range Code	Microswitch	Wetted Parts	Protective Lock	
DT - Hydraulic Pressure Switch	Please select as per range code table	C - rated at 5A, 250 VAC H - rated at15A, 250 VAC	S - for Standard Wetted parts B - for optional wetted parts mentioned in table above X - Specify wetted parts in text as per technical	U - without any lock P - with a protective lock	Reserved for non standard modifications. Code will be given by company

eg. A hydraulic pressure switch, pressure range from 5 to 40 bar, with a standard 5 A,250 VAC microswitch, standard wetted parts and a protective lock shall be specified by

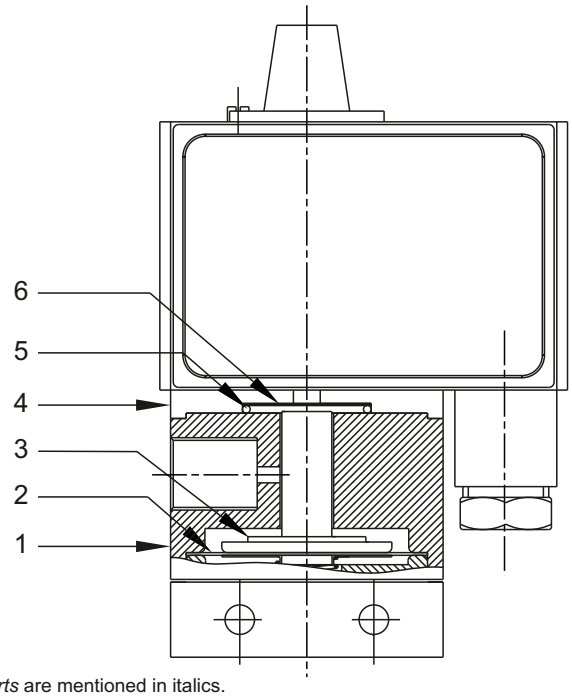
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
DT	40	C	S	P	-

Please specify full model number to avoid ambiguity. If only the first two groups are specified while ordering, pressure switches with standard wetted parts will be supplied.

MN / MA VACUUM SWITCHES



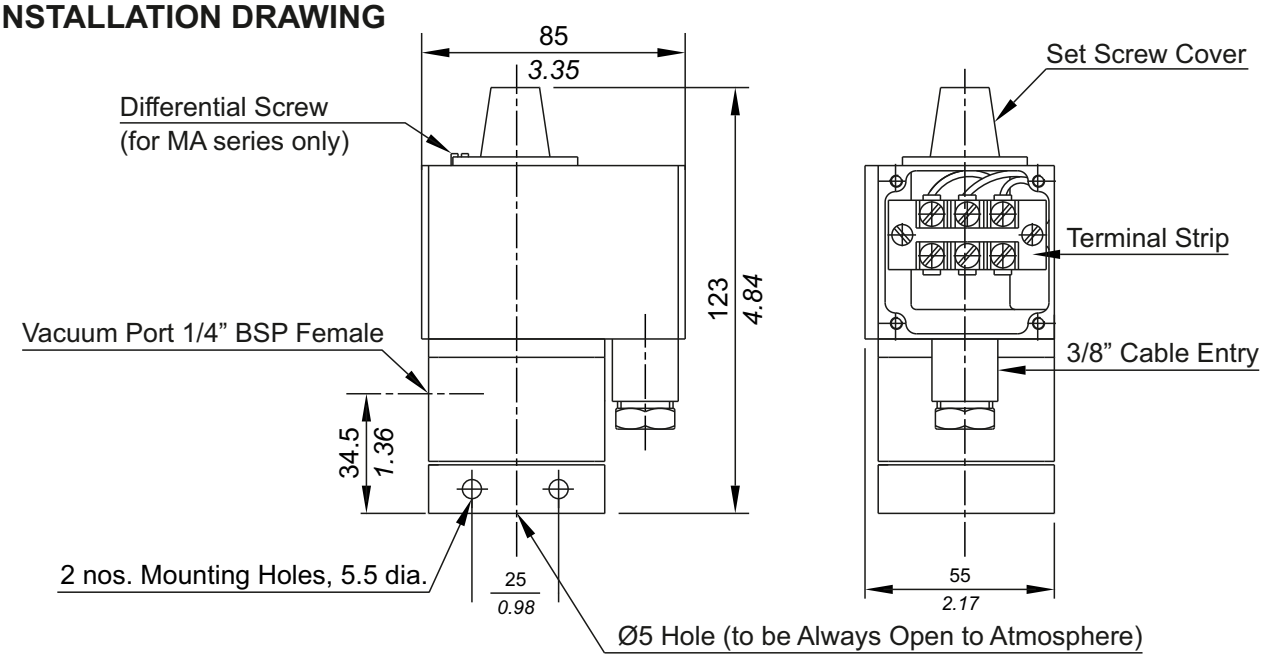
PRESSURE CAPSULE DETAILS



No.	Description
1.	*Disc*
2.	*Diaphragm*
3.	*Plunger (SS 316)*
4.	Junction Plate
5.	*Sealing 'O' ring (PTFE®)*
6.	*Sealing diaphragms (PTFE®)*

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



APPROX. DIMENSIONS IN mm / *inches*

VACUUM SWITCHES MN / MA

GENERAL INFORMATION :
MN / MA series vacuum switches are housed in pressure die cast aluminium powder coated enclosure and are recommended for panel mounting or outdoor service based on the type of enclosure opted for. The repeat accuracy is better than ± 2% FSR. A 3/8" cable entry is provided for cables and a terminal strip suitable for wired ends is provided inside the enclosure. Pressure port is 1/4" BSPF standard.

FEATURES :
- Compact
- Separate chamber for working parts
- Wide band adjustable differential in MA series.
- Choice of wetted parts to suit working media
- Electrical rating : 5A, 250VAC; 0.2A, 250 VDC
- Pressure port : 1/4" BSPF

Some Applications : Used in grinding machines for holding jobs, vacuum systems, blowers, pumps, etc.

RANGE SELECTION TABLE

		MN	MA	
Range code	**Range vacuum (falling) mm Hg *("Hg)***	***Approximate Maximum Differential (Fixed) mm Hg *("Hg)***	***Adjustable Differential mm Hg *(" Hg)***	**Maximum Working Pressure bar *(psi)***
V00	† 760 - 100 *(29.92 - 3.94)*	100 *(3.94)*	100 - 500 *(3.94 - 19.69)*	12 *(174.05)*

* Minimum differential increases with setpoint (Graphs available on request)
† Typical values achieved at sea level, total vacuum that can be achieved varies mainly with altitude.

HOW TO ORDER MN / MA SERIES VACUUM SWITCHES

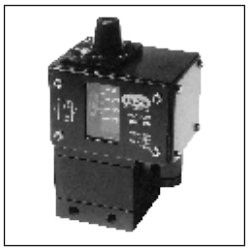
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Model	Range Code	Range Scale	Disc	Diaphragm	Enclosure
MN - Fixed differential Vacuum Switch MA - Adjustable diff. Vacuum Switch	V00 - High range vacuum Switch	C - Calibrated U - Uncalibrated	A - Aluminium B - Brass S - SS 316	0 - Neoprene 1 - PTFE	0 - Standard (IP54) 1 - IP65

Eg. A fixed differential vacuum switch, high range from 760 mm Hg vac. To 100 mm Hg vac. in uncalibrated style, with brass pressure housing, a Teflon diaphragm & a standard enclosure shall be specified by

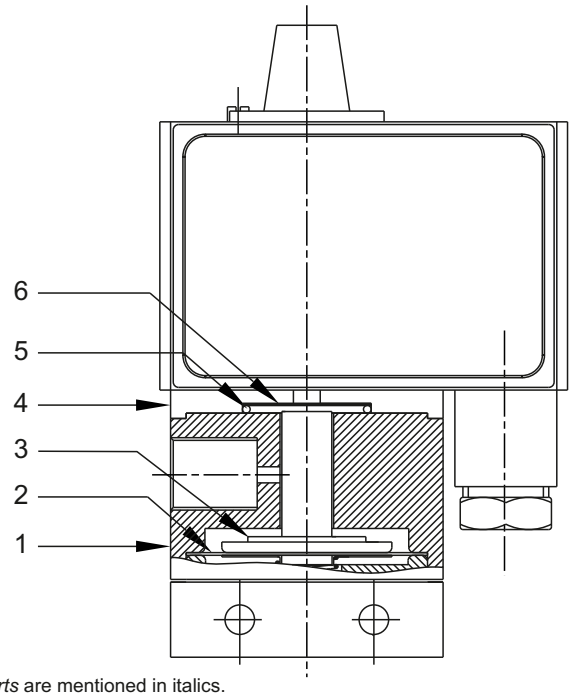
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
MN	V00	U	B	1	0

Please specify full model number to avoid ambiguty. If only the first two groups are specified while ordering, uncalibrated switches with standard wetted parts and enclosures will be supplied.

VS1 VACUUM SWITCHES



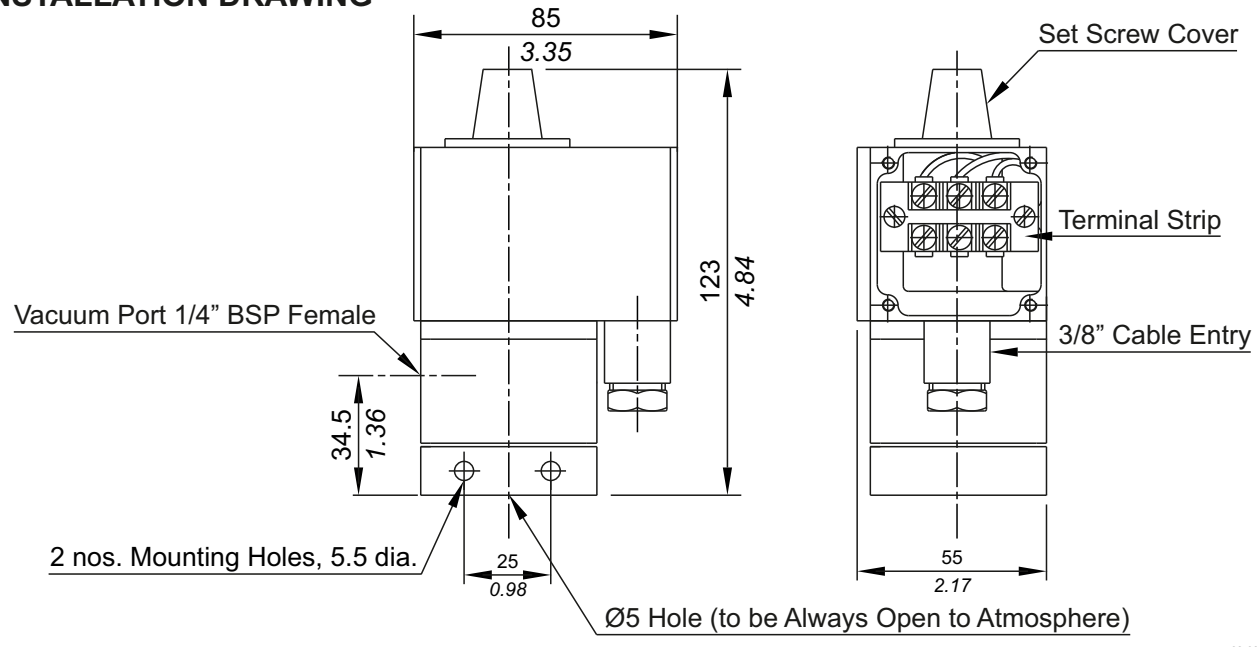
PRESSURE CAPSULE DETAILS



No.	Description
1.	*Disc (Aluminium)*
2.	*Diaphragm (PTFE®)*
3.	*Plunger (SS 316)*
4.	Junction Plate
5.	*Sealing 'O' ring (PTFE®)*
6.	*Sealing diaphragms (PTFE®)*

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



APPROX. DIMENSIONS IN mm / *inches*

VACUUM SWITCHES VS1

GENERAL INFORMATION :
VS1 series vacuum switches are housed in pressure die cast aluminium powder coated enclosure and are recommended for panel mounting or outdoor service. The repeat accuracy is better than ± 2% FSR. A 3/8" cable entry is provided for cables and a terminal strip suitable for wired ends is provided inside the enclosure. Pressure port is 1/4" BSPF standard.

FEATURES :
- Compact
- Separate chamber for working parts
- Electrical rating : 5A, 250VAC; 0.2A, 250 VDC
- Pressure port : 1/4" BSPF

Some Applications : Vacuum Systems requiring low on-off differential.

RANGE SELECTION TABLE

Range code	Range vacuum (falling) mm Hg *("Hg)*	*Approximate Maximum Differential (Fixed) mm Hg *("Hg)*	Maximum Working Pressure bar *(psi)*
V00	† 760 - 100 *(29.92 - 3.94)*	20 *(0.78)*	12 *(174.05)*

* Minimum differential increases with setpoint (Graphs available on request)
† Typical values achieved at sea level, total vacuum that can be achieved varies mainly with altitude.

HOW TO ORDER VS1 SERIES VACUUM SWITCHES

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Model	Range Code	Range Scale	Disc	Diaphragm	Enclosure
VS1 - Fixed differential Vacuum Switch	-	-	-	-	-

Eg. A fixed differential vacuum switch, high range from 760 mm Hg vac. To 100 mm Hg vac. shall be specified by

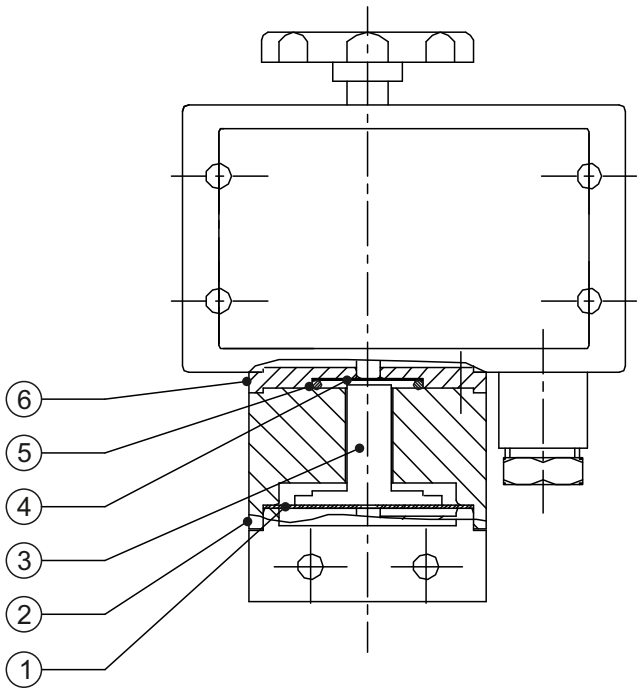
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
VS1	-	-	-	-	-

Please specify full model number to avoid ambiguty. If only the first two groups are specified while ordering, uncalibrated switches with standard wetted parts and enclosures will be supplied.

MG VACUUM SWITCHES



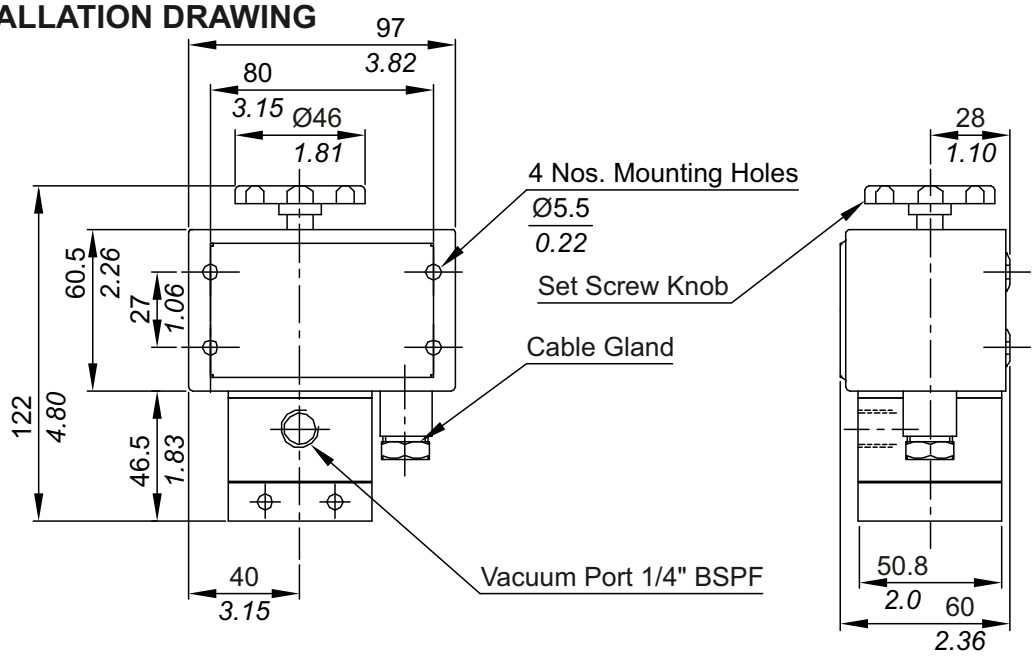
PRESSURE CAPSULE DETAILS



No.	Description
1.	*Diaphragm*
2.	*Disc*
3.	*Plunger (SS 316)*
4.	*Sealing diaphragms (PTFE®)*
5.	*Sealing 'O' ring (PTFE®)*
6.	Junction Plate

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



APPROX. DIMENSIONS IN mm / *inches*

GENERAL INFORMATION :
MG series vacuum switches are housed in pressed steel powder coated enclosure and are recommended for panel mounting or intdoor service. The repeat accuracy is better than ± 1.5% FSR. A 3/8" cable entry is provided for cables and a terminal strip suitable for wired ends is provided inside the enclosure. Pressure port is 1/4" BSPF standard.

FEATURES :
- Compact
- Separate chamber for working parts
- Choice of wetted parts to suit working media
- Electrical rating : 5A, 250VAC; 0.2A, 250 VDC
- Pressure port : 1/4" BSPF

RANGE SELECTION TABLE

Range code	Range vacuum (falling) mm Hg *("Hg)*	*Approximate Maximum Differential (Fixed) mm Hg *("Hg)*	Maximum Working Pressure bar *(psi)*
V00	† 760 - 100 *(29.92 - 3.94)*	100 *(3.94)*	12 *(171.43)*

* Minimum differential increases with setpoint (Graphs available on request)
† Typical values achieved at sea level, total vacuum that can be achieved varies mainly with altitude.

HOW TO ORDER MN / MA SERIES VACUUM SWITCHES

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Model	Range Code	Range Scale	Disc	Diaphragm	Enclosure
MG - Fixed differential Vacuum Switch	V00 - High range vacuum Switch	C -calibrated K - with knob	A - Aluminium B -Brass S -SS316	0 - Neoprene 1 - PTFE	0 - Standard (IP54)

Eg. A fixed differential vacuum switch, high range from 760 mm Hg vac. To 100 mm Hg vac. in calibrated style, with aluminium pressure housing, a Teflon diaphragm & a standard enclosure shall be specified by

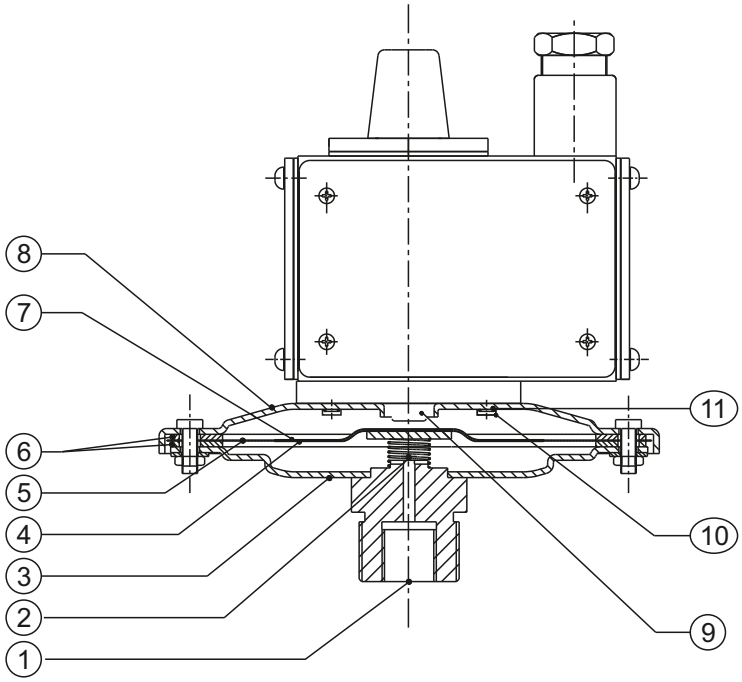
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
MG	V00	C	A	1	0

Please specify full model number to avoid ambiguty. If only the first two groups are specified while ordering, uncalibrated switches with standard wetted parts and enclosures will be supplied.

MN / MA LOW RANGE PRESSURE SWITCHES



PRESSURE CAPSULE DETAILS



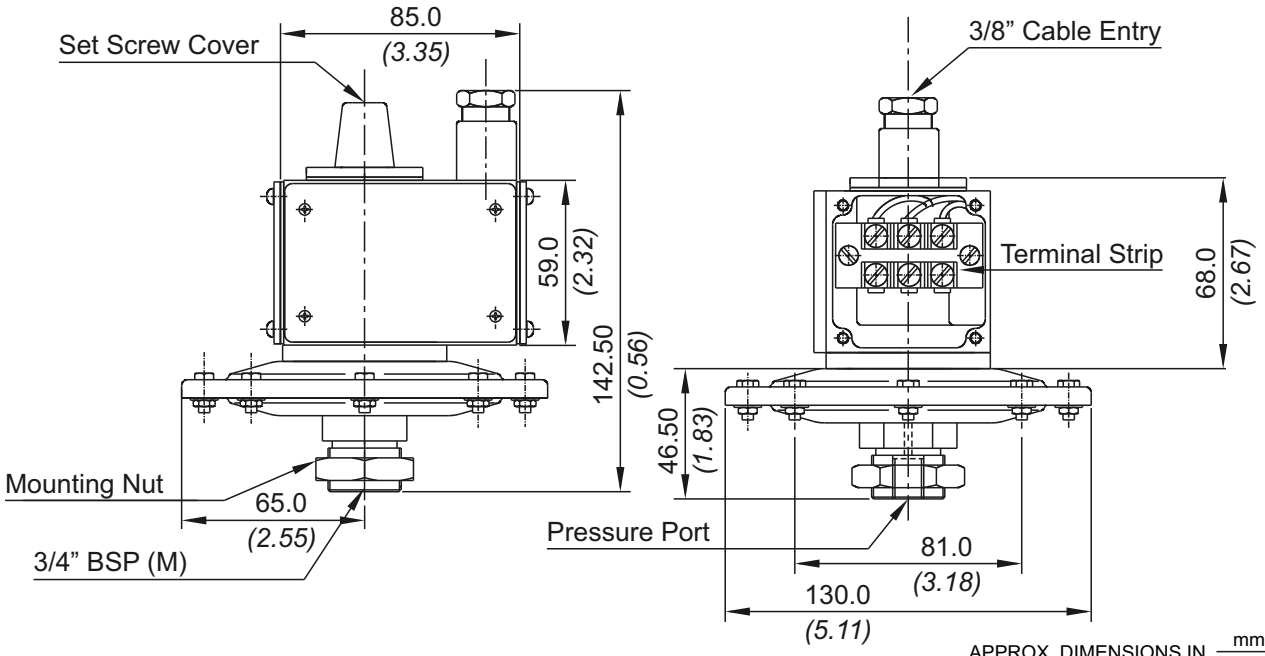
No. Description

1. *Pressure Port (M.S.)**
2. *Support Spring (S.S.)*
3. *Bottom Flange (M.S.)*
4. *Support plate (Aluminium)*
5. *Diaphragm (Neoprene)*
6. *Gasket (Nitrile)*
7. *Top Plate (Aluminium)*
8. *Top flange (M.S.)*
9. *Plunger*
10. *Top Flange Screw (M.S.)*
11. *Sealing 'O' ring (Nitrile)*

*Pressure ports are brazed with flange

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



*Pressure ports are brazed with flange

APPROX. DIMENSIONS IN mm / *inches*

LOW RANGE PRESSURE SWITCHES MN / MA

General information:
MN /MA series low pressure range switches are housed in pressure die cast aluminium powder coated enclosure and are recommended for panel mounting or outdoor service based on the type of enclosure opted for. The repeat accuracy is better than ± 2 % FSR. A 3/8" cable entry is provided for cables and a terminal strip suitable for wired ends is provided inside the enclosure. Pressure port is ¼" BSPF standard.

Features:
- Separate chamber for working parts
- Wide band adjustable differential in MA series.
- Choice of wetted parts to suit working media
- Electrical rating : 2A, 250 VAC; 0.2 A, 250 VDC (res.)
- Proof pressure available is 1.5 times MWP
- Pressure port : ¼" BSPF

Some Applications : Used in air dryers, low vacuum systems, etc.

Range Selection Table

Range Code	†Range mm wg *("wc)*	MN *Approximate Maximum Differential (Fixed) mm wg ("wc)*	MA * Adjustable Differential mm wg *("wc)*	Maximum Working Pressure bar *(psi)*
L02	20 - 150 *(0.787 - 5.905)*	50 *(1.968)*	30 - 100 *(1.181 - 3.937)*	2 *(29.00)*
L03	50 - 250 *(1.969 - 9.843)*	50 *(1.968)*	50 - 250 *(1.969 - 9.843)*	2 *(29.00)*
L05	100 - 500 *(3.937 - 19.685)*	75 *(2.952)*	50 - 300 *(1.969 - 11.811)*	2 *(29.00)*
L10	100 - 1000 *(3.937 - 39.370)*	100 *(3.937)*	100 - 600 *(3.937 - 23.622)*	2 *(29.00)*
L15	100 - 1500 *(3.937 - 59.055)*	125 *(4.921)*	125 - 900 *(4.921 - 35.433)*	2 *(29.00)*
L25	200 - 2500 *(7.874 - 98.425)*	150 *(5.906)*	150 - 1500 *(5.906 - 59.055)*	2 *(29.00)*

*Minimum differential increases with setpoint (Graphs available on request)
†Rising pressure for MN series, falling pressure for MA series

How to order MN / MA low range pressure switches

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Model	Range Code	Range Scale	Pressure Housing	Diaphragm	Enclosure
MN - Fixed Differential pressure switch MA- Adjustable differential pressure Switch	L - Low ranges	U - Uncalibrated C - Calibrated	M - M.S. S - SS316	0 - Neoprene 1 - PTFE	0 - IP 54 1 - IP 65

eg. A fixed diff. pressure switch, low pressure range from 200-2500 mmwg in uncalibrated style with M.S. pressure housing, a teflon diahragm & IP65 enclosure shall be specified by

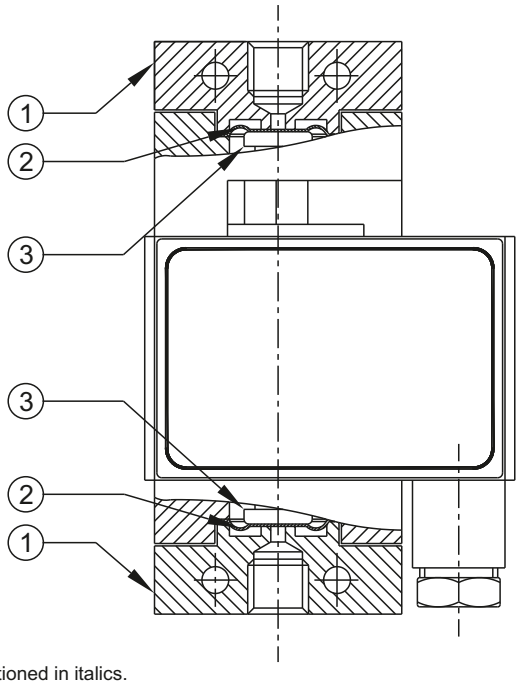
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
MN	L25	U	M	1	1

Please specify full model number to avoid ambiguty. If only the first two groups are specified while ordering, uncalibrated switches with standard wetted parts and enclosures will be supplied.

DP HIGH RANGE PRESSURE DIFFERENCE SWITCHES



PRESSURE CAPSULE DETAILS

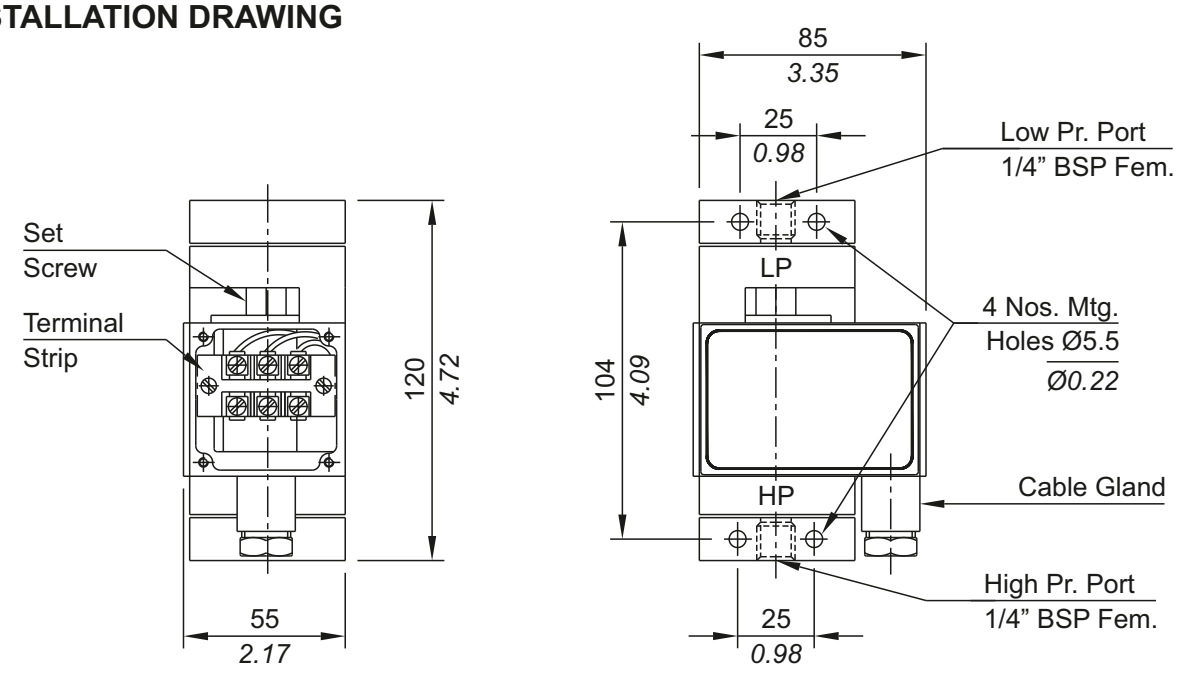


No. Description

1. *Pressure housing*
2. *Diaphragm*
3. Plunger

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



APPROX. DIMENSIONS IN mm / *inches*

HIGH RANGE PRESSURE DIFFERENCE SWITCHES DP

General information:
DP series pressure difference switches are housed in pressure die cast aluminium powder coated enclosure and are recommended for panel mounting or indoor service based on the type of enclosure opted for. The repeat accuracy is better than ± 1 % FSR. A 3/8" cable entry is provided for cables and a terminal strip suitable for wired ends is provided inside the enclosure. Pressure ports are ¼ " BSPF standard.

Features:
- Compact
- Separate chamber for working parts
- Choice of wetted parts to suit working media
- Electrical rating : 5A, 250 VAC; 0.2 A, 250 VDC (res.)
- Pressure ports: ¼" BSPF

Some Applications : Works on opposed diaphtagm principle, diaphragm seals can be coupled to this switch. Used in water treatment plants, bag filters, strainers, etc.

Range Selection Table

Range Code	Range bar *(psi)* ΔP	Approximate Maximum Differential* bar *(psi)*	Maximum Working Pressure bar *(psi)*
H01	0.1 - 1.0 *(1.45 - 14.50)*	0.15 *(2.18)*	12 *(174.05)*
H02	0.1 - 1.5 *(1.45 - 21.76)*	0.15 *(2.18)*	12 *(174.05)*
H03	0.2 - 2.6 *(2.90 - 37.71)*	0.2 *(2.90)*	12 *(174.05)*
H04	0.2- 3.6 *(2.90 - 52.21)*	0.2 *(2.90)*	12 *(174.05)*
H07	0.5 - 7.0 *(7.25 - 101.52)*	0.5 *(7.25)*	12 *(174.05)*
H10	0.5 - 10.0 *(7.25 - 145.04)*	1.0 *(14.50)*	25 *(362.6)*
H15	1.0 - 15.0 *(14.50 - 217.71)*	1.0 *(14.50)*	25 *(362.6)*
H30	5.0 - 25.0 *(72.52 - 362.6)*	1.5 *(21.75)*	35 *(507.63)*

*Minimum differential increases with setpoint (Graphs available on request)

How to order DP series high range pressure difference switches

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Model	Range Code	Range Scale	Pressure Housing	Diaphragm	Enclosure
DP - Pressure Difference Switch (Can be used for both side Positive` Pressures Only)	H - High Pressure Range	U - Uncalibrated C - Calibrated	A - Aluminium B - Brass S - SS 316	0 - Neoprene 1 - PTFE	0 - IP 54
			for special wetted parts through chemical seals, please refer pages 296 - 302 and specify in text accordingly.		

eg. A pressure difference switch, high pressure range from 0.1-1.5 bar in calibrated style with brass pressure housing & a teflon diaphragm as wetted parts, with IP54 Enclosure shall be specified by

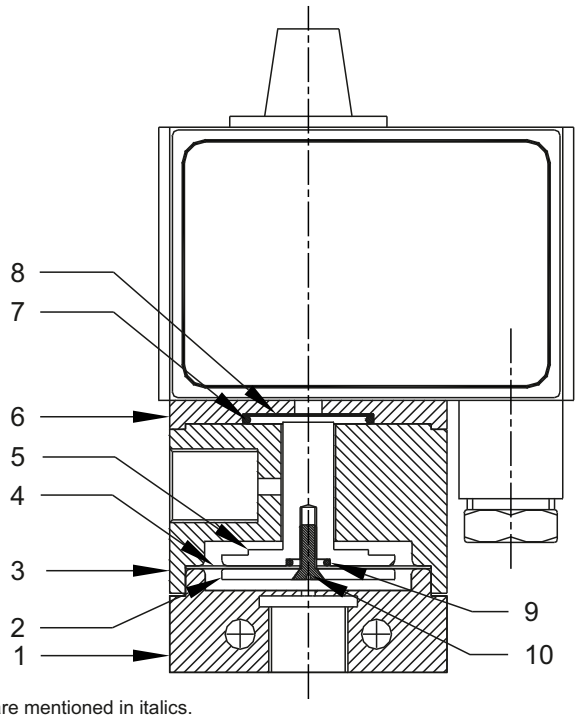
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
DP	H02	C	B	1	0

Please specify full model number to avoid ambiguty. If only the first two groups are specified while ordering, uncalibrated switches with standard wetted parts and enclosures will be supplied.

PD HIGH RANGE PRESSURE DIFFERENCE SWITCHES



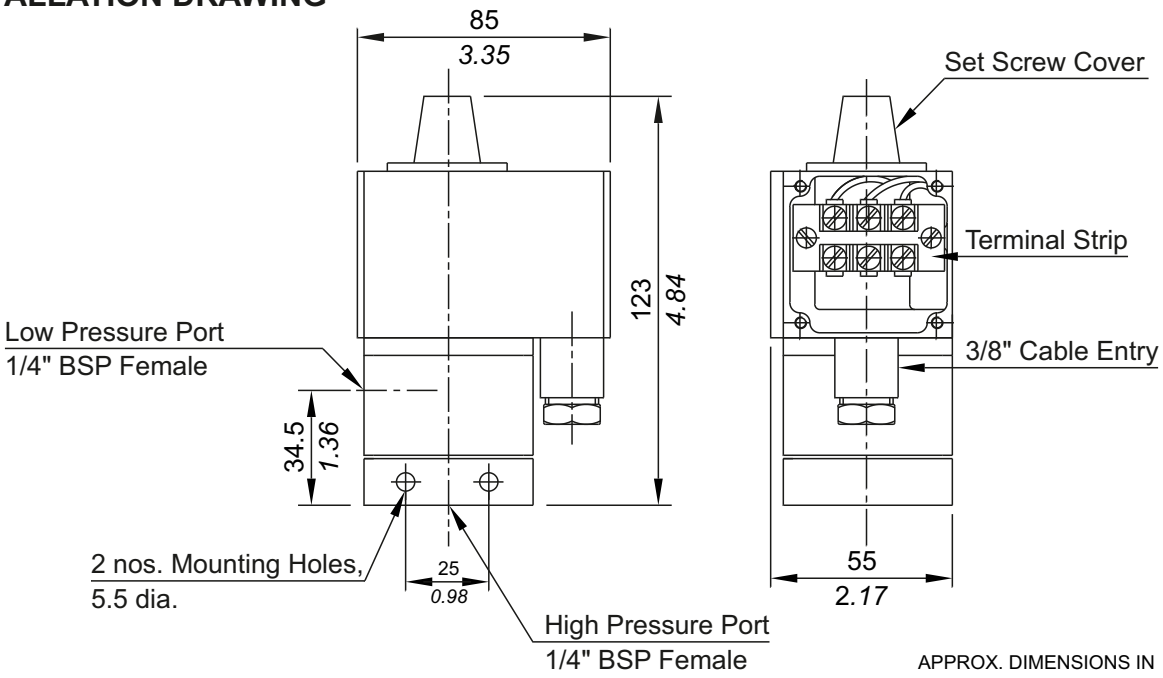
PRESSURE CAPSULE DETAILS



No.	Description
1.	*Pressure Housing*
2.	*HP Plunger (SS316)*
3.	*Disc*
4.	*Diaphragm*
5.	*LP Plunger (SS316)*
6.	Junction Plate
7.	*Sealing 'O' ring (PTFE®)*
8.	*Sealing diaphragms (PTFE®)*
9.	*'O' ring (PTFE®)*
10.	*CSK screw (SS)*

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



APPROX. DIMENSIONS IN mm / *inches*

HIGH RANGE PRESSURE DIFFERENCE SWITCHES PD

GENERAL INFORMATION :
PD series pressure difference switches are housed in pressure die cast aluminium powder coated enclosure and recommended for panel mounting or outdoor service based on the type of enclosure opted for. The repeat accuracy is better than ± 1% FSR. A 3/8" cable entry is provided for cables and a terminal strip suitable for wired ends is provided inside the enclosure. Pressure ports are ¼ " BSPF standard.

FEATURES :
- Compact
- Separate chamber for working parts
- Choice of wetted parts to suit working media
- Electrical rating : 5A, 250VAC; 0.2A, 250 VDC (res.)
- Pressure ports : 1/4" BSPF

Some Applications : Used in water treatment plants, bag filters, strainers, etc.

Range Selection Table

Range Code	Range bar *(psi)* ΔP	Approximate Maximum Differential* bar *(psi)*	Maximum Working Pressure bar *(psi)*
H01	0.1 - 1.0 *(1.45 - 14.50)*	0.1 *(1.45)*	12 *(174.05)*
H02	0.1 - 1.5 *(1.45 - 21.76)*	0.2 *(2.90)*	12 *(174.05)*
H03	0.2 - 2.6 *(2.90 - 37.71)*	0.2 *(2.90)*	12 *(174.05)*
H04	0.2 - 3.6 *(2.90 - 52.21)*	0.2 *(2.90)*	12 *(174.05)*

*Minimum differential increases with setpoint (Graphs available on request)

How to order PD series high range pressure difference switches

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Model	Range Code	Range Scale	Pressure Housing	Diaphragm	Enclosure
PD - Pressure Difference Switch	H - High Pressure Range	U - Uncalibrated C - Calibrated	A - Aluminium B - Brass S - SS 316	0 - Neoprene 1 - PTFE	0 - IP 54 1 - IP 65

Eg. A pressure difference switch, high pressure range from 0.1-1.5 bar in calibrated style with brass pressure housing & teflon diaphragm as wetted parts & a standard enclosure shall be specified by

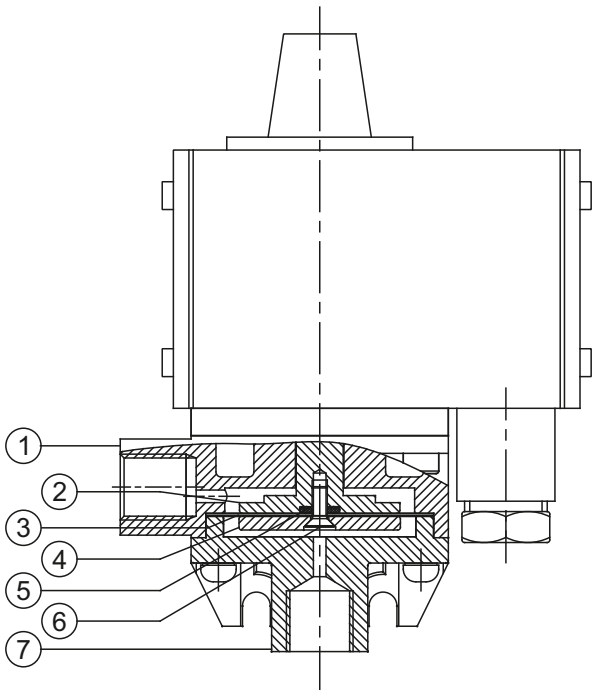
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
PD	H02	C	B	1	0

Please specify full model number to avoid ambiguty. If only the first two groups are specified while ordering, uncalibrated switches with standard wetted parts and enclosures will be supplied.

PD HIGH RANGE ΔP SWITCHES



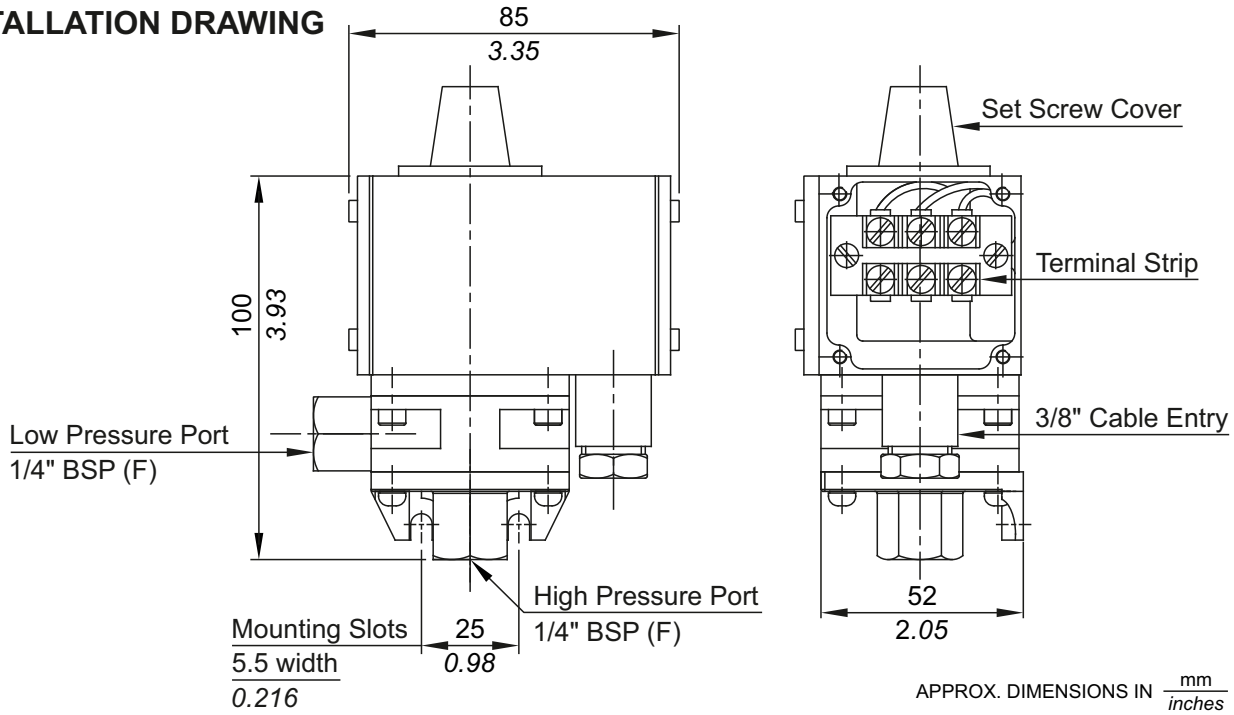
PRESSURE CAPSULE DETAILS



No.	Description
1.	*Low Pressure Port (SS316L)*
2.	*LP Plunger (SS316L)*
3.	*Diaphragm (PTFE®)*
4.	*HP Plunger (SS316L)*
5.	O-ring (Viton)
6.	M3 CSK Screw (SS)
7.	*High Pressure Port (SS316L)*

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING



APPROX. DIMENSIONS IN mm / *inches*

GENERAL INFORMATION :
PD series pressure difference switches are housed in pressure die cast aluminium powder coated enclosure and recommended for panel mounting or outdoor service based on the type of enclosure opted for. The repeat accuracy is better than ± 1% FSR. A 3/8" cable entry is provided for cables and a terminal strip suitable for wired ends is provided inside the enclosure. Pressure ports are ¼ " BSPF standard.

FEATURES :
- Compact
- Separate chamber for working parts
- Choice of wetted parts to suit working media
- Electrical rating : 5A, 250VAC; 0.2A, 250 VDC (res.)
- Pressure ports : 1/4" BSPF

Some Applications : Used in water treatment plants, bag filters, strainers, etc.

Range Selection Table

Range Code	Range bar *(psi)* ΔP	Approximate Maximum Differential* bar *(psi)*	Maximum Working Pressure bar *(psi)*
H01	0.1 - 1.0 *(1.45 - 14.50)*	0.1 *(1.45)*	12 *(174.05)*
H02	0.1 - 1.5 *(1.45 - 21.76)*	0.2 *(2.90)*	12 *(174.05)*
H03	0.2 - 2.6 *(2.90 - 37.71)*	0.2 *(2.90)*	12 *(174.05)*
H04	0.2 - 3.6 *(2.90 - 52.21)*	0.2 *(2.90)*	12 *(174.05)*

*Minimum differential increases with setpoint (Graphs available on request)

How to order PD series high range pressure difference switches

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Model	Range Code	Range Scale	Pressure Housing	Diaphragm	Enclosure
PD - Pressure Difference Switch	H - High Pressure Range	U - Uncalibrated C - Calibrated	D - SS 316	0 - Neoprene 1 - PTFE	0 - IP 54 1 - IP 65

Eg. A pressure difference switch, high pressure range from 0.1-1.5 bar in calibrated style with brass pressure housing & teflon diaphragm as wetted parts & a standard enclosure shall be specified by

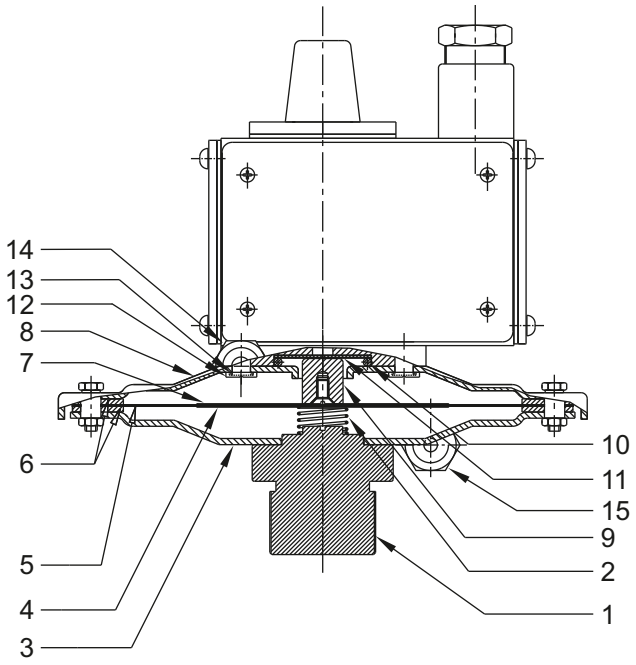
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
PD	H02	C	D	1	0

Please specify full model number to avoid ambiguty. If only the first two groups are specified while ordering, uncalibrated switches with standard wetted parts and enclosures will be supplied.

PD LOW RANGE PRESSURE DIFFERENCE SWITCHES (M.S.)



PRESSURE CAPSULE DETAILS



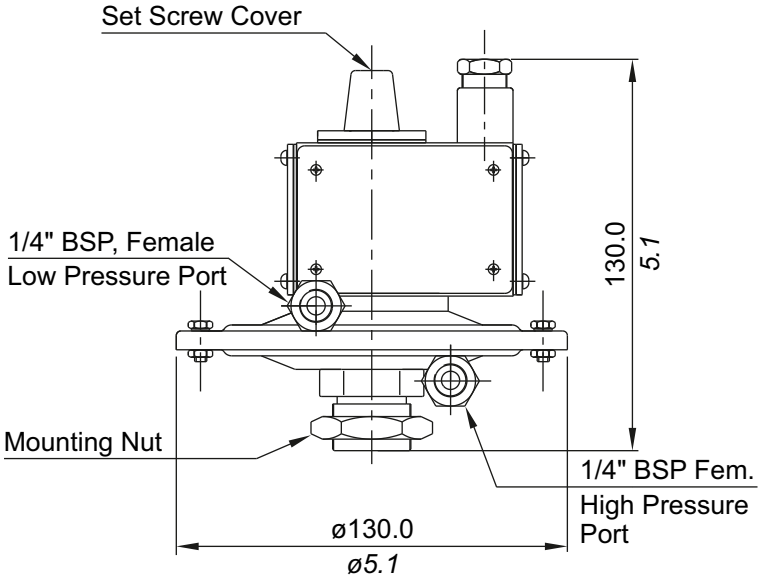
No. Description

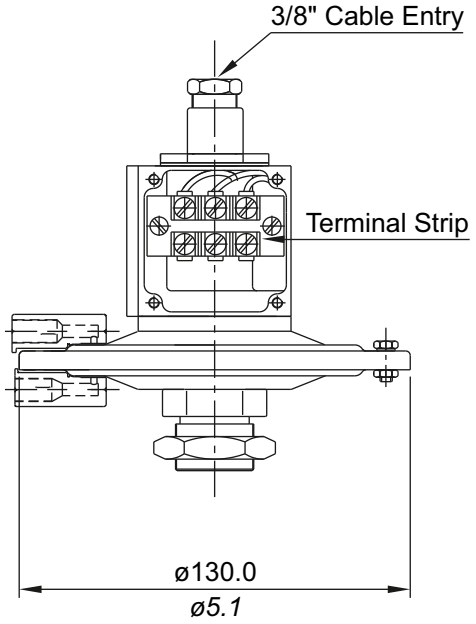
1. *Pressure housing (M.S.)**
2. *Support spring (S.S.)*
3. *Bottom flange (M.S.)**
4. *Support plate (Aluminium)*
5. *Diaphragm (Neoprene)*
6. *Gasket (Nitrile)*
7. *Top plate (Aluminium)*
8. *Top flange (M.S.)**
9. *Transfer pin (Aluminium)*
10. *O' Ring (PTFE)*
11. *Sealing diaphragm (PTFE)*
12. *Top flange screw (M.S.)*
13. *Sealing 'O' Ring (Nitrile)*
14. *Low Pressure Port(M.S)*
15. *High Pressure Port(M.S)*

*Pressure housing is brazed with bottom flange

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING





APPROX. DIMENSIONS IN mm / *inches*

LOW RANGE PRESSURE DIFFERENCE SWITCHES (M.S.) PD

GENERAL INFORMATION :
PD series pressure difference switches are housed in pressure die cast aluminium powder coated enclosure and are recommended for panel mounting or outdoor service based on the type of enclosure opted for. The repeat accuracy is better than ± 2% FSR. A 3/8" cable entry is provided for cables and a terminal strip suitable for wired ends is provided inside the enclosure. Pressure ports are 1/4" BSPF standard.

FEATURES :
- Compact
- Separate chamber for working parts
- Electrical rating : 5A, 250VAC; 0.2A, 250 VDC (res.)
- High pressure port : 1/4" BSPF
- Low pressure port : 1/4" BSPF
- Can be used for Δp between +ve +ve, -ve +ve & -ve -ve pressure/vacuum

Some Applications : Used in low vacuum systems, clean room applications, air blower systems, furnaces, cooling systems, etc.

Range Selection Table

Range Code	Range (Δp) mm wc ("wc) (falling)	*Approximate Maximum Differential (Fixed) mm wg *("wc)*	Maximum Working Pressure bar *(psi)*
L02	15 - 150 *(0.590 - 5.905)*	50 *(1.969)*	0.5 *(7.252)*
L03	50 - 250 *(1.969 - 9.843)*	50 *(1.969)*	0.5 *(7.252)*
L05	100 - 500 *(3.937 - 19.685)*	50 *(1.969)*	0.5 *(7.252)*
L10	100 - 1000 *(3.937 - 39.370)*	50 *(1.969)*	0.5 *(7.252)*
L15	100 - 1500 *(3.937 - 59.055)*	50 *(1.969)*	0.5 *(7.252)*
L25	200 - 2500 *(7.874 - 98.425)*	150 *(5.906)*	0.5 *(7.252)*

* Maximum differential increases with setpoint. (Graphs available on request)

How to order PD low range series switches

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Model	Range Code	Range Scale	Pressure Housing	Diaphragm	Enclosure
PD - Pressure Difference Switch	L - Low Pressure Range	U - Uncalibrated C - Calibrated	M - Mild Steel	0 - Neoprene	0 - Standard (IP 54) 1 - IP 65 as per IS60529

Eg. A pressure difference switch, low range pressure from 50 to 250 mm WC in calibrated style with mild steel pressure housing and neoprene diaphragm as wetted parts, with standard enclosure shall be specified by

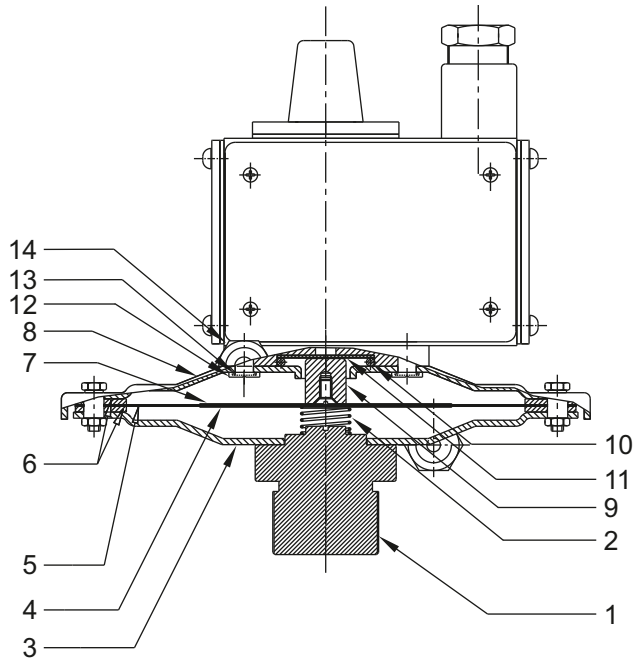
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
PD	L03	C	M	0	0

Please specify full model number to avoid ambiguity. If only the first two groups are specified while ordering, uncalibrated switches with standard wetted parts and enclosures will be supplied.

PA LOW RANGE PRESSURE DIFFERENCE SWITCHES



PRESSURE CAPSULE DETAILS



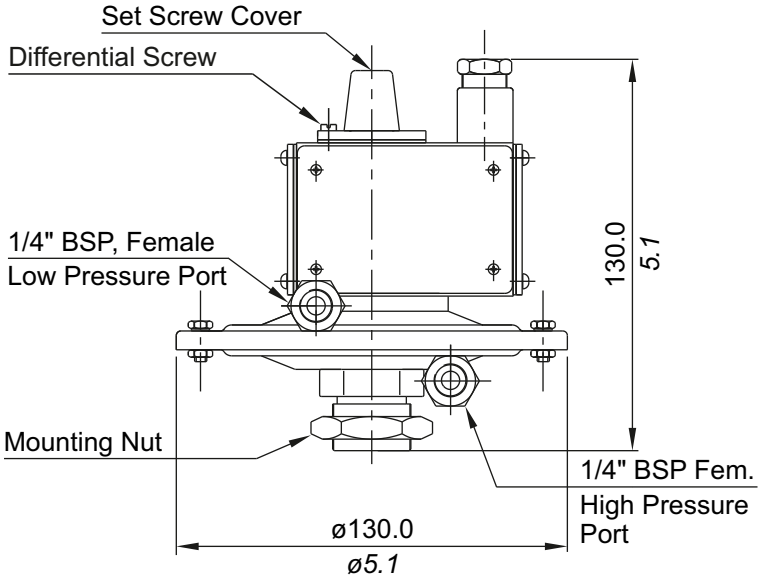
No. Description

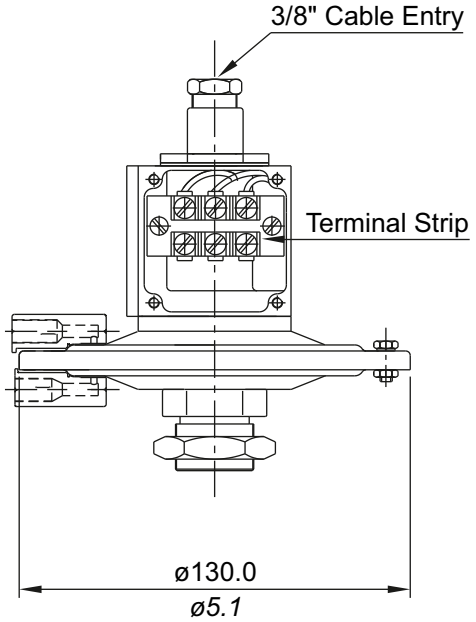
1. *Pressure housing (M.S.)**
2. *Support spring (S.S.)*
3. *Bottom flange (M.S.)**
4. *Support plate (Aluminium)*
5. *Diaphragm (Neoprene)*
6. *Gasket (Nitrile)*
7. *Top plate (Aluminium)*
8. *Top flange (M.S.)**
9. *Transfer pin (Aluminium)*
10. *O' Ring (PTFE)*
11. *Sealing diaphragm (PTFE)*
12. *Top flange screw (M.S.)*
13. *Sealing 'O' Ring (Nitrile)*
14. *Low Pressure Port(M.S)*
15. *High Pressure Port(M.S)*

*Pressure housing is brazed with bottom flange

Note : *wetted parts* are mentioned in italics.

INSTALLATION DRAWING





APPROX. DIMENSIONS IN mm / *inches*

LOW RANGE PRESSURE DIFFERENCE SWITCHES PA

General information:
PA series pressure switches are housed in pressure die cast aluminium powder coated enclosure and are recommended for panel mounting or outdoor service, based on the type of enclosure opted for. The on-off differential can be varied in this switch, within the limits specified. The repeat accuracy is better than ± 2 % FSR. A separate terminal block is provided for electrical wiring. Pressure ports are ¼" BSPF standard.

FEATURES :
- Compact
- Separate chamber for working parts
- Electrical rating : 5A, 250VAC; 0.2A, 250 VDC (res.)
- High pressure port : 1/4" BSPF
- Low pressure port : 1/4" BSPF
- Can be used for Δp between +ve +ve, -ve +ve & -ve -ve pressure/vacuum

Some Applications : Used in bag filter operations requiring cutin/cutoff to stop and start air purging cycles, etc.

Range Selection Table

Range Code	†Range mm wg *("wc)*	* Adjustable Differential mm wg *("wc)*	Maximum Working Pressure bar *(psi)*
L02	20 - 150 *(0.787 - 5.905)*	30 - 100 *(1.181 - 3.937)*	2 *(29.00)*
L03	50 - 250 *(1.969 - 9.843)*	50 - 250 *(1.969 - 9.843)*	2 *(29.00)*
L05	100 - 500 *(3.937 - 19.685)*	50 - 300 *(1.969 - 11.811)*	2 *(29.00)*
L10	100 - 1000 *(3.937 - 39.370)*	100 - 600 *(3.937 - 23.622)*	2 *(29.00)*
L15	100 - 1500 *(3.937 - 59.055)*	125 - 900 *(4.921 - 35.433)*	2 *(29.00)*
L25	200 - 2500 *(7.874 - 98.425)*	150 - 1500 *(5.906 - 59.055)*	2 *(29.00)*

*Minimum differential increases with setpoint (Graphs available on request)
†Rising pressure for MN series, falling pressure for MA series

How to order PA low range pressure difference switches

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Model	Range Code	Range Scale	Pressure Housing	Diaphragm	Enclosure
PA - Pressure Difference Switch (Adjustable Differential)	L - Low Pressure Range	U - Uncalibrated C - Calibrated	M - Mild Steel	0 - Neoprene	0 - Standard (IP 54) 1 - IP 65

Eg. A pressure difference switch (Adjustable Differential), low range pressure from 100 to 500 mm WC in calibrated style with mild steel pressure housing and neoprene diaphragm as wetted parts, with standard enclosure shall be specified by

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
PA	L05	C	M	0	0

Please specify full model number to avoid ambiguity. If only the first two groups are specified while ordering, uncalibrated switches with standard wetted parts and enclosures will be supplied.