PVS Sensors Inc.

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PVS Sensors Inc.®

COMPANY PROFILE

PVS offers a range of USA manufactured pressure, vacuum, temperature and differential switches designed for applications in the Industrial and Mobile Hydraulic field as well as Pneumatic, Water Process, Refrigerant, Air Conditioning, Beverage and other associated industries.

The USA designed and manufactured products are complimented by a competitive range of Temperature and Pressure Transducers.

PVS Sensors Inc. offers a complete custom design and manufacturing service providing custom switch products to meet specific customer needs.

From a simple modification to designing a custom sensor, PVS Sensors engineering and sales staff has an answer for your pressure switch needs.

USA Design, Manufacturing & Sales

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www.pvssensors.com

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PVS Sensors Inc.®

DEFINITIONS AND TERMINOLOGY

ACCURACY, (REPEATABILITY) - Accuracy is the maximum allowable set point deviation of a single pressure or temperature switch under one given set of environmental and operational conditions.

ACTUATION AND DEACTUATION POINT - The actuation point (sometimes called set point) is the exact point at which the electrical circuit controlled by the switching element is opened (or closed) on increasing pressure or temperature. The deactuation point is the opposite at which the electrical circuit is closed (or opened) on decreasing pressure or temperature.

DEAD BAND - The dead band sometimes referred to as "differential" or "hysteresis" is the change in pressure between actuation and deactuation set points.

PRESSURE SWITCH - An instrument that upon the increase or decrease of a pressure or vacuum, opens or closes one or more electrical switching elements at a predetermined actuation point (setting).

PRESSURE SENSING ELEMENT - That portion of the pressure switch that is in contact with and moves as a result of a change in pressure of the medium. The most common type of pressure sensing elements are diaphragms, accordion bellows, bourdon tubes, and pistons.

SINGLE POLE DOUBLE THROW (SPDT) SWITCHING ELEMENT - A SPDT switching element has one normally open, one normally closed and one common terminal. Three terminals mean that the switch can be wired with the circuit either normally open (N/O) or normally closed (N/C).

NORMALLY CLOSED SWITCHING ELEMENT (NC) - Is one in which the terminals are wired so that current can flow through the switching element until pressure is applied to open the electrical circuit.

NORMALLY OPEN SWITCHING ELEMENT (NO) - Is one in which the terminals are wired so that no current can flow through the switching element until the pressure is applied to close the electrical circuit.

PRESSURE, PROOF - Proof Pressure is the maximum pressure which can be applied to any switch without causing permanent degradation.

Electrical Specifications

Please refer to individual data pages for electrical specifications.

Circuit Definitions

Form A - SPST - NO
Single Pole - Single Throw
Normally Open

Form B - SPST - NC
Single Pole - Single Throw
Normally Closed

Form C - SPDT
Single Pole - Double Throw

Standard Electrical Circuit

Wire Color	DIN 43650 Number	C Circuit
Black	1	Common
Green	2	N. Closed
Red	3	N. Open

TECHNICAL DATA

PVS Pressure, Vacuum and Temperature Switches are sealed, vibration resistant and ruggedly built to provide a reliable protection for automatic control of equipment and processes. They are designed for direct or remote mounting and offer a quality product at a competitive price.

Microswitch - Each PVS pressure, vacuum and temperature switch except for the PVA,PMA,DPA,EPA and bi-metal temperature models contain a precision, snap-action microswitch which meets or exceeds industrial standards for reliability; electrical capacity and long life.

The snap action micro switch meets underwriters and CSA specifications for 5 amp or 3 amp rating dependent upon specification type - consult factory for additional data.

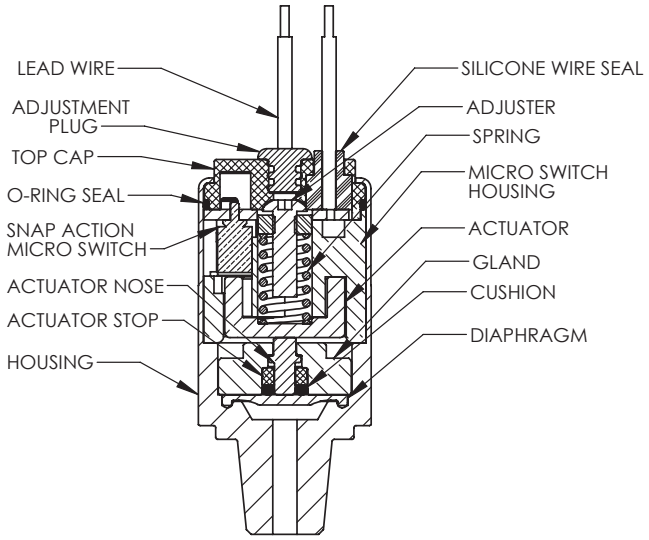
Setting - The set point of each switch is preset at the factory as follows:
- Field adjustable series - bottom of range
- Factory set series - at the desired set point

The switches can be ordered for operation with either rising or falling temperature, vacuum or pressure. Reset of the microswitch is automatic and depends upon the dead band or differential of the particular model.

Switch Protection - Standard PVS switches offer excellent protection and long life in most applications. They are also sealed for weatherproof protection. The corrosion-resistant materials in the wetted areas and the standard nitrile diaphragm are suitable for most media. Where required the switches are available with VITON®,KAPTON®, EPDM or Low Temperature Nitrile diaphragms and, in some cases, optional steel, brass or stainless steel housings and wetted areas.

Mechanism - Where the pressure switch is subject to higher pressure, either dynamic or static, of over 700 psi, the diaphragm operating mechanism includes an O-ring cushion which absorbs the slight operation motion required while preventing extrusion of the diaphragm material into the piston-to-cylinder clearance.

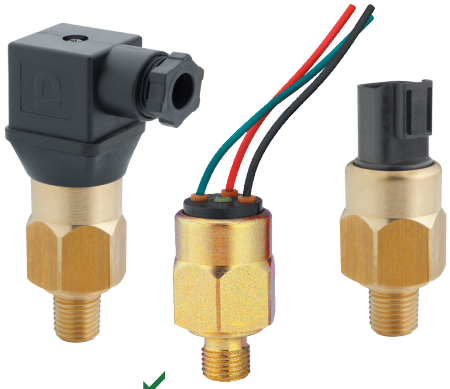
Gold Contacts - May be required for applications where less than 12VDC and 20 Milliamps



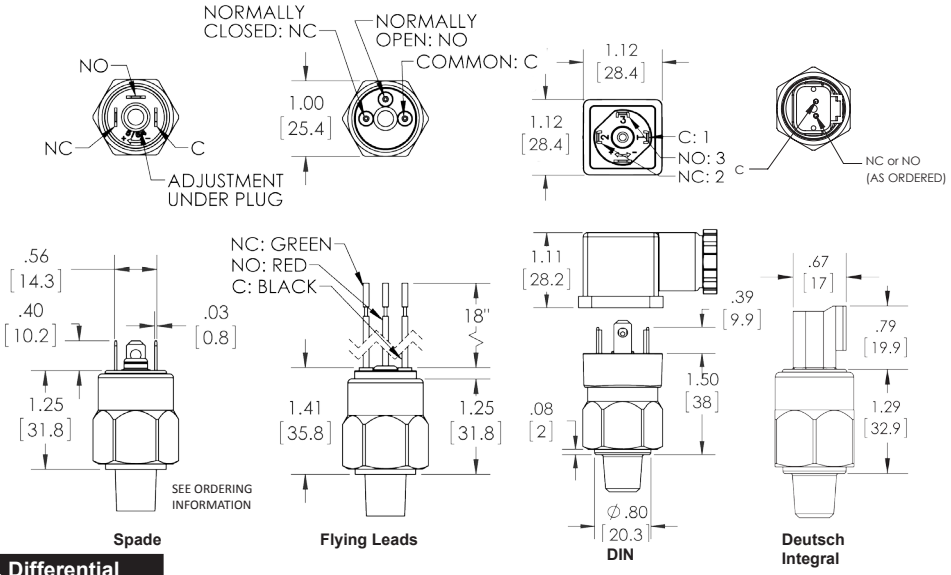
Model BPA Shown

PVS Sensors Inc.®

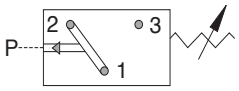
AVA/AVF Vacuum Switch



CE RoHS COMPLIANT



Model	Adjustment Range in Hg	Adjustment Range MilliBar	Avg. Differential in Hg	Avg. Differential MilliBar
1	5 - 25	170 - 850	4 - 6	135 - 200



ELECTRICAL:
Standard: 5A, 125V/250VAC - U.L. Recognized*
5A, 12/24VDC - U.L. Recognized*
Option -7: 0.02A, 60VDC - U.L. Recognized*
Gold contacts may be required for less than 12 VDC and 20 milliamps

MANUFACTURER'S OTHER RATING:
5A @ 40VDC

WETTED MATERIAL:
Diaphragm: Buna-N (standard)
(optional EPDM, KAPTON®,VITON®)
Housing: Brass
(optional 316 Stainless Steel)

PROTECTION:
Exposed Terminals – IP00
DIN HC - IP65
Flying Leads, M12, Deutsch Integral - IP69

REPEATABILITY:
± 1 psi or 5% of Set Point
(which ever is greater)

SWITCH TYPE:
Snap Action

MECHANICAL LIFE:
1,000,000 cycles

MEDIA TEMPERATURE RANGE:
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
KAPTON®: -40° to +230°F (-40° to 110°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)

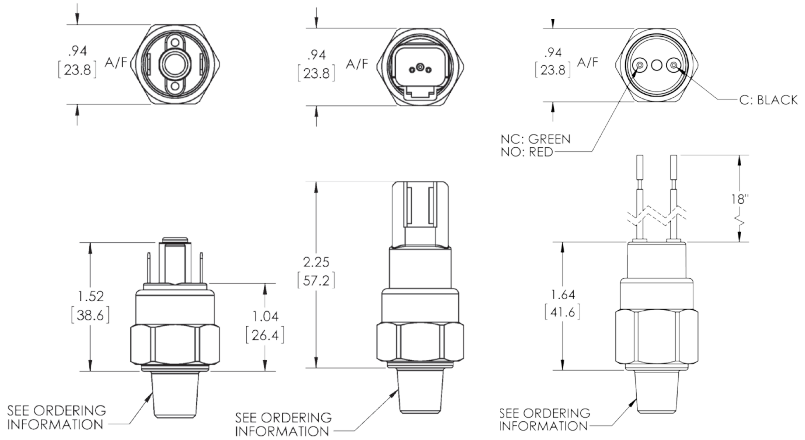
MAXIMUM OVERPRESSURE:
350 PSI (24 Bar)

WEIGHT:
0.08 lbs (0.04 kg)

ORDERING INFORMATION

AVA	*- * 1*	*- * R*	*- 4M*	*- A*	*- FL*	*- * 1*
Model	**Set Point**	**Direction**	**Port Size**	**Circuit**	**Terminal**	**Options**
AVA - Field Adjustable AVF - Factory Set	See Above Adjustment Ranges *Model AVF Specify Set Point Required	R - Rising F - Falling MBR - Millibar Rising MBF - Millibar Falling *Omit For Model AVA	2M - 1/8 NPT 4M - 1/4 NPT 2G - 1/8 BSPP 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) 4S - 7/16X20 SAE MALE 4SW - 7/16X20 SAE Swivel 6S - 9/16X18 SAE MALE M10 - M10X1 M12 - M12X1.5 Consult Factory for Non-Standard	A - SPST / NO B - SPST / NC C - SPDT	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws FL - 18" Flying Leads FLL - Advise additional length of leads if required H - DIN 43650A Male Half Only HC - DIN 43650A Cable Clamp HN - DIN 43650A 1/2 Conduit (female) HCC - XXX (Specify Length in Inches) DI - Deutsch Integral M12 - M12 X 1 PP - Packard Plug * For other Electrical Terminations refer to page 49	* - Omit If Standard 1 - VITON® Diaphragm 2 - EPDM Diaphragm 2W - EPDM Diaphragm (WRAS) 3 - KAPTON® Diaphragm 4 - 316 SS Housing 5 - Spiral Restrictor 6 - Oxygen Cleaned 7 - Gold Contacts UL - UL Recognized** **For Selected Models Only - Consult Factory 12 - WRAS Approved **** Call Factory for Shrink Wrap Options & Pricing

PVA/PVF Vacuum Switch



Spade | **Deutsch Integral** | **Flying Leads**

CE RoHS COMPLIANT

Model	Adjustment Range in Hg	Adjustment Range MilliBar	Avg. Differential
1	3 - 25	100 - 850	Less than 10% of Actuation Point

ELECTRICAL:
100 VA Max Voltage 42 VDC
Gold contacts may be required for less than 12 VDC and 20 milliamp

WETTED MATERIAL:
Diaphragm: Buna-N
(optional KAPTON®, EPDM,VITON®)
Housing: Brass
(optional Steel - Electroless Nickel Plated, 316 Stainless Steel)

PROTECTION:
IP69 except exposed terminals – IP00

REPEATABILITY:
± 1 psi or 5% of Set Point
(which ever is greater)

SWITCH TYPE:
Creep Action

MECHANICAL LIFE:
1,000,000 cycles

MEDIA TEMPERATURE RANGE:
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
KAPTON®: -40° to +230°F (-40° to 110°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)

MAXIMUM OVERPRESSURE:
350 PSI (24 Bar)

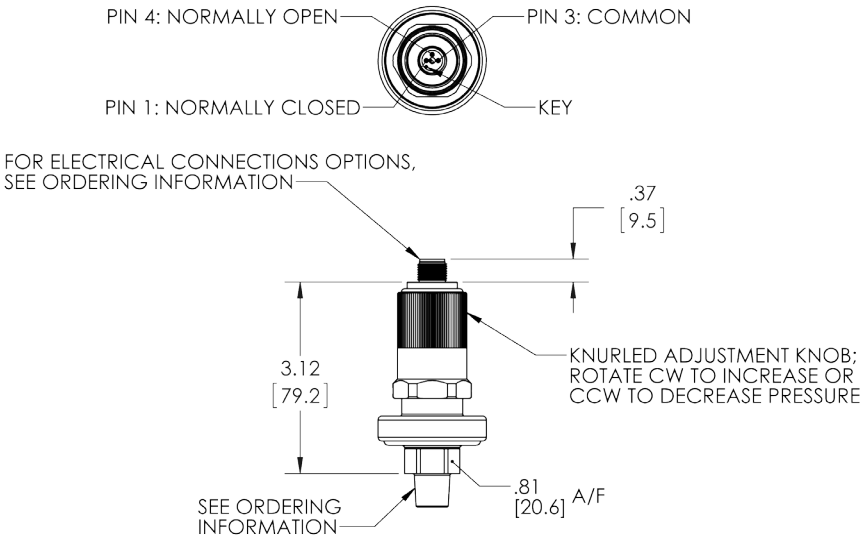
WEIGHT:
0.15 lbs (0.07 kg)

ORDERING INFORMATION

PVA	*- * 1*	*- * R*	*- 4M*	*- A*	*- SP*	*- * 1*
Model	**Set Point**	**Direction**	**Port Size**	**Circuit**	**Terminal**	**Options**
PVA - Field Adjustable PVF - Factory Set	See Above Adjustment Range ** Model PVF Specify Set Point Required*	R - Rising F - Falling MBR - Millibar Rising MBF - Millibar Falling **Omit For Model PVA*	2M - 1/8 NPT 4M - 1/4 NPT 2G - 1/8 BSPP 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) 4S - 7/16X20 SAE MALE 6S - 9/16X18 SAE MALE M10 - M10X1 M12 - M12X1.5 *Consult Factory for Non-Standard*	A - SPST / NO B - SPST / NC	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws FL - 18" Flying Leads FLL - Advise additional length of leads if required FLWTF - Weatherpack Tower Female FLWTM - Weatherpack Tower Male FLWSF - Weatherpack Shroud Female FLWSM - Weatherpack Shroud Male DI - Deutsch Integral * For other Electrical Terminations refer to page 49	* - Omit If Standard 1 - VITON® Diaphragm 2 - EPDM Diaphragm 3 - KAPTON® Diaphragm 4 - 316 SS Housing 4A - Steel - Nickel Plated 5 - Spiral Restrictor 6 - Oxygen Cleaned 7 - Gold Contacts

PVS Sensors Inc.®

PVS
Hand Adjustable Vacuum Switch



CE RoHS COMPLIANT

Model	Adjustment Range in Hg	MilliBar
1	2 - 30	68 - 1000

ELECTRICAL:
Standard: 10A, 125/250VAC - U.L. Recognized
10A, 12/24VDC - U.L. Recognized
Option -7: 0.1A, 125/250VAC,30 VDC - U.L. Recognized
-8:16 amp,125/250 AC U.L. Recognized
Gold contacts may be required for less than 12 VDC and 20 milliamps

WETTED MATERIAL:
Diaphragm: Buna-N (Standard)
(optional EPDM, KAPTON®,VITON®, Low Temp Nitrile)
Housing: Brass (standard)
(optional: 316 Stainless Steel

PROTECTION:
Exposed Terminals – IP00
plastic housing is vented)
DIN HC - IP65
Flying Leads, M12, DI - IP69

REPEATABILITY:
± 5% of Full Vacuum

SWITCH TYPE:
Snap Action

MECHANICAL LIFE:
1,000,000 cycles

MEDIA TEMPERATURE RANGE:
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
KAPTON®: -40° to +230°F (-40° to 110°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)
Low Temp Nitrile: -40° to 230°F (-40° to 110°C)

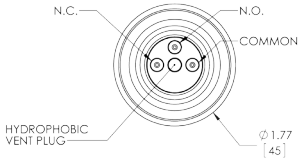
MAXIMUM OVERPRESSURE:
100 PSI (7 Bar)

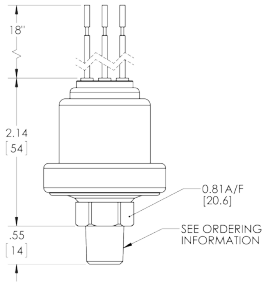
WEIGHT:
Approx. 0.2 lbs (0.09 kg)

ORDERING INFORMATION

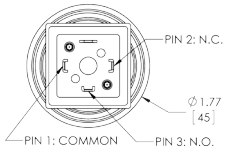
PVS	*- * 1*	*- 4M*	*- A*	*- FL*	*- 1**
Model	**Adjustment Range**	**Port Size**	**Circuit**	**Terminal**	**Options**
PVS Field Adjustable	See Above Adjustment Range	2M - 1/8 NPT 4M - 1/4 NPT 2G - 1/8 BSPP 4G - 1/4 BSPP 4S - 7/16X20 SAE MALE **Consult Factory for other sizes**	A - SPST / NO B - SPST / NC C - SPDT	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws FL - 18" Flying Leads FLL - Advise additional length of leads if required H - DIN 43650A Male Half Only HC - DIN 43650A Cable Clamp HN - DIN 43650A 1/2 Conduit (female) HCC - XXX (Specify Length in Inches) DI - Deutsch Integral (2 pin only) M12 - M12 X 1 * (up to 5 amp rating) PP - Packard Plug	* - Omit If Standard 1 - VITON® Diaphragm 2 - EPDM Diaphragm 3 - KAPTON® Diaphragm 4 - 316 SS Housing 15 - Low Temp Nitrile Diaphragm 6 - Oxygen Cleaned 7 - Gold Contacts 8 - 16 amp ** Factory Set option available - Inquire

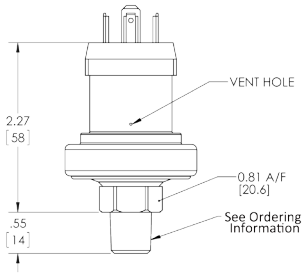
PPVA/PPVF Vacuum Switch





Flying Leads





DIN

CE RoHS COMPLIANT

Model	Adjustment Range In Hg	Adjustment Range MilliBar	Avg. Differential In Hg	Avg. Differential MilliBar
1	0.75 - 30	22 - 1016	0.2 - 0.5	0.6 - 0.15

ELECTRICAL:
Standard: 10A, 125/250VAC - U.L. Recognized
10A, 12/24VDC - U.L. Recognized
Option -7: 0.1A, 125/250VAC,30 VDC
- U.L. Recognized
-8:16 amp,125/250 AC U.L. Recognized
Gold contacts may be required for less than 12 VDC and 20 milliamps

WETTED MATERIAL:
Diaphragm: Buna-N (standard)
(optional EPDM, KAPTON®, VITON®)
Housing: Brass (standard)
(optional: 316 Stainless Steel

PROTECTION:
Exposed Terminals – IP00
(plastic housing is vented)
DIN HC - IP65
Flying Leads - IP69

REPEATABILITY:
± 1 psi or 5% of Set Point
(which ever is greater)

SWITCH TYPE:
Snap Action

MECHANICAL LIFE:
1,000,000 cycles

MEDIA TEMPERATURE RANGE:
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
KAPTON®: -40° to +230°F (-40° to 110°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)

MAXIMUM OVERPRESSURE:
150 PSI (10 Bar)

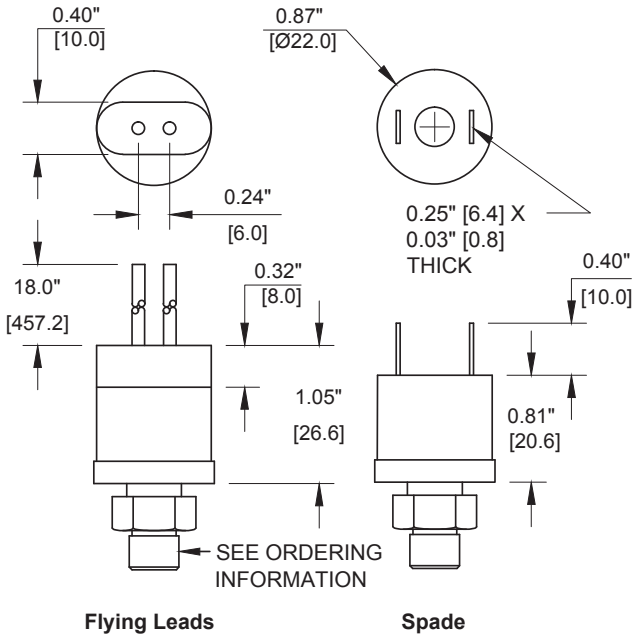
WEIGHT:
Approx. 0.2 lbs (0.09 kg)

ORDERING INFORMATION

PPVA	*- * 10*	*- R*	*- 4M*	*- A*	*- FL*	*- 1**
Model	**Set Point**	**Direction**	**Port Size**	**Circuit**	**Terminal**	**Options**
PPVA Field Adjustable PPVF Factory Set	Specify Set Point **Model PPVF Specify Set Point Required*	R - Rising F - Falling BR- Bar Rising BF - Bar Falling **Omit For Model PPVA*	2M - 1/8 NPT 4M - 1/4 NPT 2G - 1/8 BSPP 4G - 1/4 BSPP **Consult Factory for other sizes**	A - SPST / NO B - SPST / NC C - SPDT	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws FL - 18" Flying Leads FLL - Advise additional length of leads if required H - DIN 43650A Male Half Only HC - DIN 43650A Cable Clamp HN - DIN 43650A 1/2 Conduit (female) HCC - XXX (Specify Length in Inches)	** - Omit If Standard 1 - VITON® Diaphragm 2 - EPDM Diaphragm 3 - KAPTON® Diaphragm 4 - 316 SS Housing 5 - Spiral Restrictor 6 - Oxygen Cleaned 7 - Gold Contacts 8 - 16 Amp

LPF Pressure Switch

PVS Sensors Inc.®



CE RoHS COMPLIANT WRAS APPROVED PRODUCT

ELECTRICAL:
24V/125VA, 120V/375VA,
240V/375VA, 6A/36VDC
Max Amps @ 12 VDC - 13.5

TEMPERATURE RANGE:
-22° to +180°F (-30° to +82°C)
Ambient and Medium

WETTED MATERIAL:
Diaphragm: Stainless Steel
Port: Brass

HOUSING:
Plastic

PROTECTION:
IP68 except exposed terminals – IP00

REPEATABILITY:
± 3 PSI of set point

SWITCH TYPE:
Snap Action

MECHANICAL LIFE:
150,000 cycles

WEIGHT:
0.10 lbs (0.05 kg)

PRESSURE RANGE:
LPF: 5 - 650 PSI (0.35 - 45 Bar)

MAXIMUM OVERPRESSURE:
375 PSI (26 Bar) for actuation up to 150 PSI (10 Bar)
750 PSI (52 Bar) for actuation from 150-650 PSI (10-45 Bar)

PROOF PRESSURE:
500 PSI (35 Bar)
800 PSI (55 Bar)

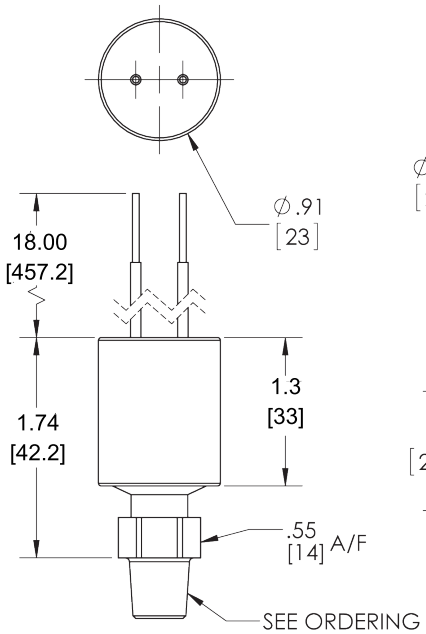
ORDERING INFORMATION

Minimum Order Required - Consult Factory

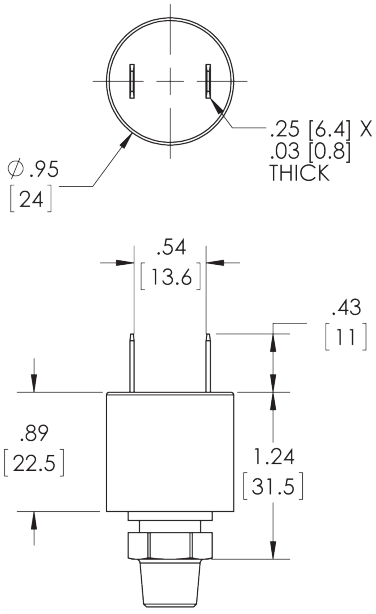
LPF	*- 35R / 25F*		*- 4M*	*- A*	*- FL*
Model	**Rising Set Point**	**Falling Set Point**	**Port Size**	**Circuit**	**Terminal**
LPF Factory Set	Specify Set Point 5 - 650 PSI (.35 - 45 Bar) R - PSI Rising BR - Bar Rising	Specify Set Point 5 - 650 PSI (.35 - 45 Bar) F - PSI Falling BF - Bar Falling	2M - 1/8 NPT* 4M - 1/4 NPT 2G - 1/8 BSPP 4G - 1/4 BSPP 4SF - 7/16 X 20 SAE FEMALE W/Depressor Pin *Standard	A - SPST / NO B - SPST / NC	SP - 1/4" x 1/32" Spade FL - 18" Flying Leads FLL - Advise additional length of leads if required FLWTF - Weatherpack Tower Female FLWTM - Weatherpack Tower Male FLWSF - Weatherpack Shroud Female FLWSM - Weatherpack Shroud Male

SPF Pressure Switch

ALL STAINLESS STEEL CONSTRUCTION



Flying Leads



Spade

CE RoHS COMPLIANT WRAS APPROVED PRODUCT

ELECTRICAL:
24V/125 VA, 120/240V/375 VA, 6A/36 VDC
Maximum Amperage @ 12 VDC - 13.5 Amp

WETTED MATERIAL:
Diaphragm: Stainless Steel
Port: Stainless Steel
Housing: Stainless Steel

PROTECTION:
IP68 except exposed terminals – IP00

REPEATABILITY:
± 3 PSI of set point

SWITCH TYPE:
Snap Action

MECHANICAL LIFE:
150,000 cycles

TEMPERATURE RANGE:
-22° to +180°F (-30° to +82°C)

PRESSURE RANGES:
For Set Points From:
5 - 700 psi (.35 - 48 Bar)
700 - 2000 psi (48 - 138 Bar)

MAXIMUM OVERPRESSURE:
1000 PSI (69 Bar) for set point pressures to 700 PSI (48 Bar)
2500 PSI (172 Bar) for set point presures from 700 psi (48 Bar) to 2000 PSI (138 Bar)

WEIGHT:
0.10 lbs (0.05 kg)

ORDERING INFORMATION

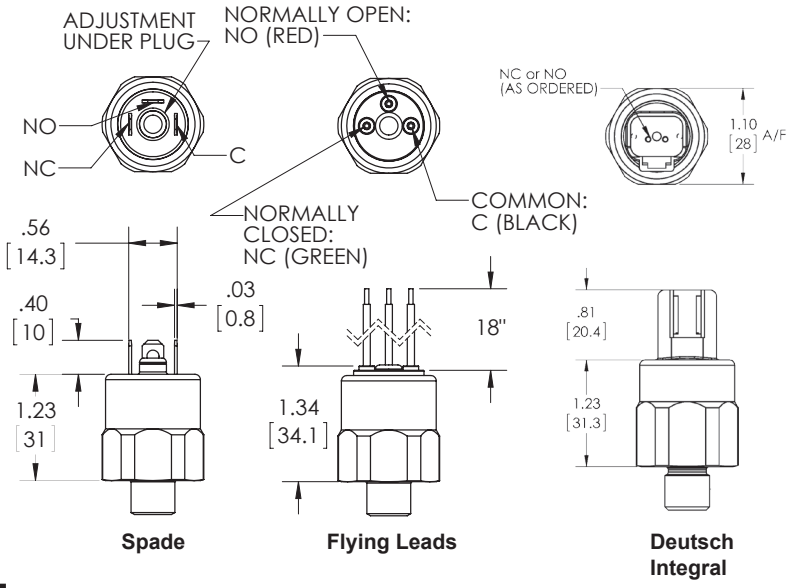
Minimum Order Required - Consult Factory

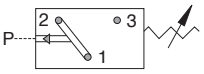
SPF	*- 320R / 285F*		*- 4M*	*- A*	*- FL*
Model	**Rising Set Point**	**Falling Set Point**	**Port Size**	**Circuit**	**Terminal**
SPF Factory Set	Specify Set Point 5 - 2000 PSI (.35 - 138 Bar) R - PSI Rising BR - Bar Rising	Specify Set Point 5 - 2000 PSI (.35 - 138 Bar) F - PSI Falling BF - Bar Falling	2M - 1/8 NPT* 4M - 1/4 NPT 2G - 1/8 BSPP 4G - 1/4 BSPP *Standard All Others Special Order Only	A - SPST / NO B - SPST / NC	SP - 1/4" x 1/32" Spade FL - 18" Flying Leads FLL - Advise additional length of leads if required FLWTF - Weatherpack Tower Female FLWTM - Weatherpack Tower Male FLWSF - Weatherpack Shroud Female FLWSM - Weatherpack Shroud Male

PVS Sensors Inc.®

HPA/HPF Pressure Switch

High Impact Plastic Switch





Model	Adjustment Range PSI	Adjustment Range Bar	Avg. Differential PSI	Avg. Differential Bar
1	3 - 20	0.2 - 1.4	2 - 5	0.13 - 0.4
2	15 - 80	1.03 - 6	4 - 7	0.27 - 0.5
3	50 - 150	3.5 - 10	7 - 15	0.5 - 1.0

ELECTRICAL:
Standard: 5A, 125V/250VAC - U.L. Recognized*
5A, 12/24VDC - U.L. Recognized*
Option -7: 0.02A, 60VDC - U.L. Recognized*
Gold contacts may be required for less than 12 VDC and 20 milliamp

MANUFACTURER'S OTHER RATING:
5A @ 40VDC

WETTED MATERIAL:
Diaphragm: Buna-N Standard
(optional EPDM, KAPTON®,VITON®)
Housing: Glass Filled Nylon

PROTECTION:
Exposed Terminals – IP00
Flying Leads, M12, Deutsch Integral - IP69

REPEATABILITY:
± 1 psi or 5% of Set Point
(which ever is greater)

SWITCH TYPE:
Snap Action

MECHANICAL LIFE:
1,000,000 cycles

MEDIA TEMPERATURE RANGE:
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
KAPTON®: -40° to +230°F (-40° to 110°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)

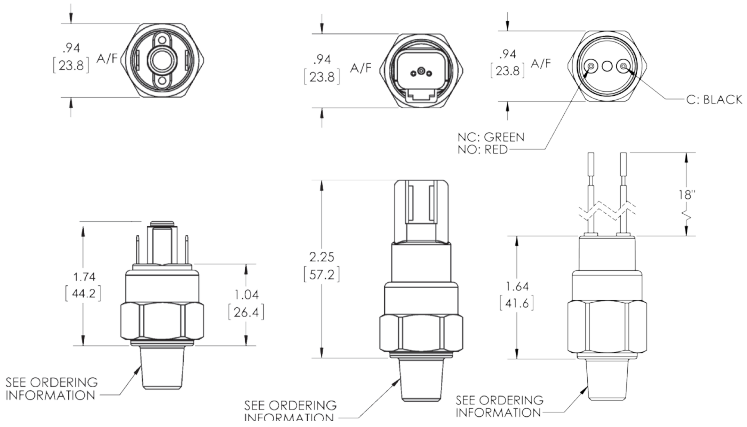
MAXIMUM OVERPRESSURE:
250 PSI (17 Bar)

WEIGHT:
0.08 lbs (0.04 kg)

ORDERING INFORMATION

HPA	*- * 2*	*- * R*	*- 4M*	*- A*	*- FL*	*- * 1*
Model	**Set Point**	**Direction**	**Port Size**	**Circuit**	**Terminal**	**Options**
HPA - Field Adjustable HPF - Factory Set	See Above Adjustment Ranges ** Specify Set Point Required for model HPF*	R - PSI Rising F - PSI Falling BR - Bar Rising BF - Bar Falling **Omit For Model HPA*	2M - 1/8 NPT 4M - 1/4 NPT 2G - 1/8 BSPP 4G - 1/4 BSPP	A - SPST / NO B - SPST / NC C - SPDT	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws FL - 18" Flying Leads FLL - Advise additional length of leads if required FLWTF - Weatherpack Tower Female FLWTM - Weatherpack Tower Male FLWSF - Weatherpack Shroud Female FLWSM - Weatherpack Shroud Male DI - Deutsch Integral M12 - M12 X 1 PP-Packard Plug	* - Omit If Standard 1 - VITON® Diaphragm 2 - EPDM Diaphragm 3 - KAPTON® Diaphragm 7 - Gold Contacts UL - UL Recognized** **For Selected Models Only - Consult Factory 12 - WRAS Approved

PMA/PMF Pressure Switch



Spade | **Deutsch Integral** | **Flying Leads**

CE RoHS COMPLIANT

Model	Adjustment Range PSI	Adjustment Range Bar	Avg. Differential
1	2 - 20	0.14 - 1.4	Less than 10% of Actuation Point
2	15 - 100	1.03 - 6.9	
3	50 - 150	3.5 - 10	

ELECTRICAL:
100 VA Max Voltage 42 VDC
Gold contacts may be required for less than 12 VDC and 20 milliamp

WETTED MATERIAL:
Diaphragm: KAPTON®
(optional EPDM, VITON®,Buna-N)
Housing: Brass
(Optional Steel - Electroless Nickel Plated, 316 Stainless Steel)

PROTECTION:
Exposed Terminals - IP00
Flying Leads & Deutsch Integral - IP69

REPEATABILITY:
± 1 psi or 5% of Set Point
(which ever is greater)

SWITCH TYPE:
Creep Action

MECHANICAL LIFE:
1,000,000 cycles

MEDIA TEMPERATURE RANGE:
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
KAPTON®: -40° to +230°F (-40° to 110°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)

MAXIMUM OVERPRESSURE:
350 PSI (24 Bar)

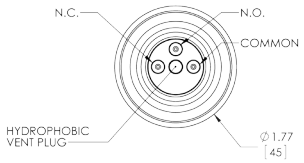
WEIGHT:
0.15 lbs (0.07 kg)

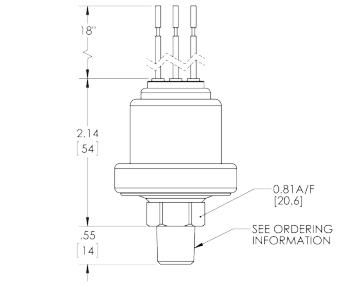
ORDERING INFORMATION

PMA	*- * 2*	*- * R*	*- 4M*	*- A*	*- SP*	*- * 1*
Model	**Set Point**	**Direction**	**Port Size**	**Circuit**	**Terminal**	**Options**
PMA - Field Adjustable PMF - Factory Set	See Above Adjustment Ranges ** Model PMF Specify Set Point Required*	R - PSI Rising F - PSI Falling BR - Bar Rising BF - Bar Falling **Omit For Model PMA*	2M - 1/8 NPT 4M - 1/4 NPT 2G - 1/8 BSPP 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) 4S - 7/16X20 SAE MALE 6S - 9/16X18 SAE MALE M10 - M10X1 * M12 - M12X1.5 * **Consult Factory for Specials*	A - SPST / NO B - SPST / NC	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws FL - 18" Flying Leads FLL - Advise additional length of leads if required FLWTF - Weatherpack Tower Female FLWTM - Weatherpack Tower Male FLWSF - Weatherpack Shroud Female FLWSM - Weatherpack Shroud Male DI - Deutsch Integral C - 18" Cable	* - Omit If Standard 1 - VITON® Diaphragm 2 - EPDM Diaphragm 14 - Buna-N Diaphragm 4 - 316 SS Housing 4A - Steel - Nickel Plated 5 - Spiral Restrictor 6 - Oxygen Cleaned 7 - Gold Contacts

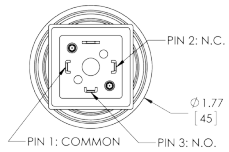
PVS Sensors Inc.®

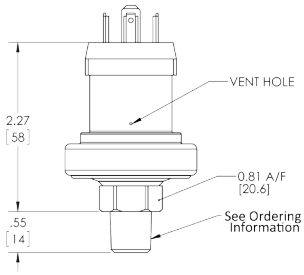
PPA/PPF
Pressure Switch





Flying Leads





DIN

CE RoHS COMPLIANT

Adjustment Range		
Model	**PSI**	**MilliBar**
1	0.55 - 3.5	40 - 240
2	3 - 12	200 - 827
3	30 - 90	207 - 6205

ELECTRICAL:
Standard: 10A, 125/250VAC - U.L. Recognized
10A, 12/24VDC - U.L. Recognized
Option -7: 0.1A, 125/250VAC,30 VDC - U.L. Recognized
-8:16 amp,125/250 AC U.L. Recognized
Gold contacts may be required for less than 12 VDC and 20 milliamps

WETTED MATERIAL:
Diaphragm: Buna-N (standard)
(optional EPDM, KAPTON®, VITON®)
Housing: Brass (standard)
(optional: 316 Stainless Steel

PROTECTION:
Exposed Terminals – IP00
(plastic housing is vented)
DIN HC - IP65
Flying Leads - IP69

REPEATABILITY:
± 1 psi or 5% of Set Point
(which ever is greater)

SWITCH TYPE:
Snap Action

MECHANICAL LIFE:
1,000,000 cycles

MEDIA TEMPERATURE RANGE:
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
KAPTON®: -40° to +230°F (-40° to 110°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)
Low Temp Nitrile: -40° to 230°F (-40° to 110°C)

MAXIMUM OVERPRESSURE:
150 PSI (10 Bar) - Dynamic
200 PSI (14 Bar) - Static

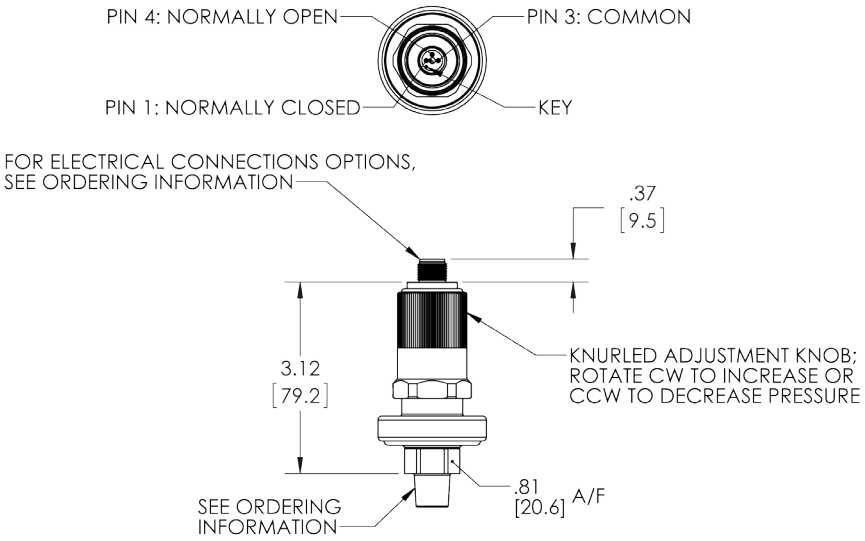
WEIGHT:
Approx. 0.2 lbs (0.09 kg)

ORDERING INFORMATION

PPA	***- *10***	***- *R***	***- 4M***	***- A***	***- FL***	***- 1****
Model	**Set Point**	**Direction**	**Port Size**	**Circuit**	**Terminal**	**Options**
PPA Field Adjustable PPF Factory Set	Specify Set Point ** Model PPF Specify Set Point Required*	R - Rising F - Falling BR- Bar Rising BF - Bar Falling **Omit For Model PPA*	2M - 1/8 NPT 4M - 1/4 NPT 2G - 1/8 BSPP 4G - 1/4 BSPP **Consult Factory for other sizes**	A - SPST / NO B - SPST / NC C - SPDT	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws FL - 18" Flying Leads FLL - Advise additional length of leads if required H - DIN 43650A Male Half Only HC - DIN 43650A Cable Clamp HN - DIN 43650A 1/2 Conduit (female) HCC - XXX (Specify Length in Inches) DI - Deutsch Integral (2 pin only) M12 - M12 X 1 * (up to 5 amp rating))	** - Omit If Standard 1 - VITON® Diaphragm 2 - EPDM Diaphragm 3 - KAPTON® Diaphragm 4 - 316 SS Housing 5 - Spiral Restrictor 6 - Oxygen Cleaned 7 - Gold Contacts 8 - 16 amp

PVS Sensors Inc.®

PAS/PAF
Hand Adjustable Low Pressure Switch



CE RoHS COMPLIANT

Model	Adjustment Range PSI	MilliBar
1	0.5 - 15	34 - 1034

ELECTRICAL:
Standard: 10A, 125/250VAC - U.L. Recognized
10A, 12/24VDC - U.L. Recognized
Option -7: 0.1A, 125/250VAC,30 VDC - U.L. Recognized
-8:16 amp,125/250 AC U.L. Recognized
Gold contacts may be required for less than 12 VDC and 20 milliamps

WETTED MATERIAL:
Diaphragm: Buna-N (Standard)
(optional EPDM, KAPTON®,VITON®, Low Temp Nitrile)
Housing: Brass (standard)
(optional: 316 Stainless Steel

PROTECTION:
Exposed Terminals – IP00
plastic housing is vented)
DIN HC - IP65
Flying Leads , M12, Integral Deutsch-IP69

REPEATABILITY:
± 1 psi or 5% of Set Point
(which ever is greater)

SWITCH TYPE:
Snap Action

MECHANICAL LIFE:
1,000,000 cycles

MEDIA TEMPERATURE RANGE:
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
KAPTON®: -40° to +230°F (-40° to 110°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)
Low Temp Nitrile: -40° to 230°F (-40° to 110°C)

MAXIMUM OVERPRESSURE:
150 PSI (10 Bar)

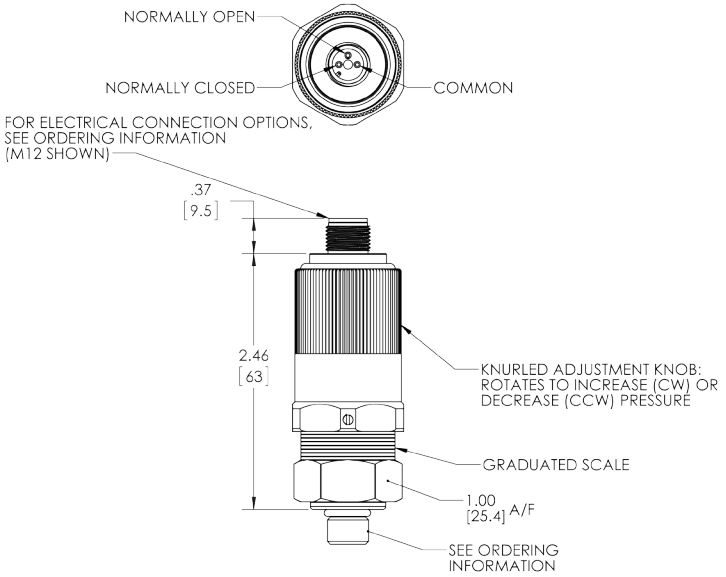
WEIGHT:
Approx. 0.2 lbs (0.09 kg)

ORDERING INFORMATION

PAS	*- * 10*	*-* R*	*- 4M*	*- A*	*- FL*	*- 1**
Model	**Set Point**	**Direction**	**Port Size**	**Circuit**	**Terminal**	**Options**
PAS Field Adjustable PAF Factory Set	See Above Adjustment Range **Model PAF Specify Set Point Required*	R - Rising F - Falling MBR- MilliBar Rising MBF - MilliBar Falling **Omit For Model PAS*	2M - 1/8 NPT 4M - 1/4 NPT 2G - 1/8 BSPP 4G - 1/4 BSPP 4S - 7/16X20 SAE MALE **Consult Factory for other sizes**	A - SPST / NO B - SPST / NC C - SPDT	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws FL - 18" Flying Leads FLL - Advise additional length of leads if required H - DIN 43650A Male Half Only HC - DIN 43650A Cable Clamp HN - DIN 43650A 1/2 Conduit (female) HCC - 3 ft (1m) standard (Inquire for other lengths) DI - Deutsch Integral (2 pin only) M12 - M12 X 1 * (up to 5 amp rating)) PP- Packard Plug	** - Omit If Standard 1 - VITON® Diaphragm 2 - EPDM Diaphragm 3 - KAPTON® Diaphragm 4 - 316 SS Housing 5 - Spiral Restrictor 6 - Oxygen Cleaned 7 - Gold Contacts 8 - 16 amp

PVS Sensors Inc.®

LMA/LMF
Hand Adjustable Low Pressure



CE RoHS COMPLIANT WRAS APPROVED PRODUCT

Model	Adjustment Range PSI	Adjustment Range Bar	Avg. Differential PSI	Avg. Differential Bar
1	5 - 75	0.35 - 5	3 - 7	0.21 - 0.5
2	50 - 150	3.5 - 10	7 - 15	0.5 - 1.0

ELECTRICAL:
Standard: 10A, 125/250VAC - U.L. Recognized
10A, 12/24VDC - U.L. Recognized
Option -7: 0.1A, 125/250VAC,30 VDC - U.L. Recognized
-8:16 amp,125/250 AC U.L. Recognized
Gold contacts may be required for less than 12 VDC and 20 milliamps

WETTED MATERIAL:
Diaphragm: Buna-N (Standard)
(optional: EPDM, VITON®, KAPTON® Low Temp Nitrile)
Brass & stainless steeel housing
Housing: Brass (standard)
(optional: 316 Stainless Steel

PROTECTION:
Exposed Terminals – IP00
DIN HC - IP65
Flying Leads, M12, & Deutsch Integral - IP69

REPEATABILITY:
± 1 psi up to 20 psi, Over 20 psi, ± 5 % of set point

SWITCH TYPE:
Snap Action

MECHANICAL LIFE:
1,000,000 cycles

MEDIA TEMPERATURE RANGE:
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)
Low Temp Nitrile: -40° to 230°F (-40° to 110°C)

MAXIMUM OVERPRESSURE:
350 PSI (24 Bar)

WEIGHT:
0.4 lbs (0.16 kg)

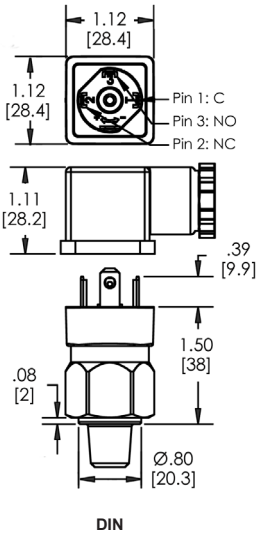
ORDERING INFORMATION

LMA	*- * 2*	*- * R*	*- 4M*	*- C*	*- H*	*- * 1*
Model	**Set Point**	**Direction**	**Port Size**	**Circuit**	**Terminal**	**Options**
LMA *Field Adjustable* LMF *Factory Set*	See Above Adjustment Ranges **Model LMF Specify Set Point Required*	R - PSI Rising F - PSI Falling BR - Bar Rising BF - Bar Falling **Omit For Model LMA*	2M - 1/8 NPT 4M - 1/4 NPT 4MF -1/4 NPTF (Male Dryseal thread) 2G - 1/8 BSPP 4F - 1/4" NPT Female 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) 6S - 9/16X18 SAE MALE M10 - M10X1* M12 - M12X1.5 * **Consult Factory for Specials.*	A - SPST / NO B - SPST / NC C - SPDT	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws FL - 18" Flying Leads FLL - Advise additional length of leads if required H - DIN 43650A Male Half Only HC - DIN 43650A Cable Clamp HN - DIN 43650A 1/2 Conduit (female) HCC - XXX (Specify Length in Inches) DI - Deutsch Integral (2 pin only) M12 - M12 X 1 (up to 5 amp) PP - Packard Plug M12-6'C - M12 with 6 ft Mating cable M12-12'C - M12 with 12 ft Mating cable	* - Omit If Standard 1 - VITON® Diaphragm 2 - EPDM Diaphragm 3 - KAPTON® Diaphragm 15 - Low Temp Nitrile Diaphragm 4 - 316 SS Housing 6 - Oxygen Cleaned 7 - Gold Contacts 8 - 16 Amp (limited by termination - Inquire) 12 - WRAS Approved

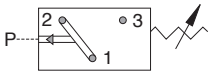
APA/APF
Adjustable Low Pressure Switches

PVS Sensors Inc.®

WRAS APPROVED PRODUCT



DIN



c UL us ® * CE RoHS COMPLIANT

Model	Adjustment Range PSI	Adjustment Range Bar	Avg. Differential PSI	Avg. Differential Bar	Model	Adjustment Range PSI	Adjustment Range Bar	Avg. Differential PSI	Avg. Differential Bar
1	3 - 15	0.2 - 1.04	2 - 5	0.13 - 0.4	2	15 - 75	1.03 - 5.2	4 - 7	0.27 - 0.5
1A	5 - 30	0.3 - 2.1	3 - 7	0.21 - 0.5	3	50 - 150	3.5 - 10	7 - 15	0.5 - 1.0

ELECTRICAL:
Standard: 5A, 125V/250VAC - U.L. Recognized*
5A, 12/24VDC - U.L. Recognized*
Option -7: 0.02A, 60VDC - U.L. Recognized*
Gold contacts may be required for less than 12 VDC and 20 milliamps

MANUFACTURER'S OTHER RATING:
5A @ 40VDC

WETTED MATERIAL:
Diaphragm: Buna-N (standard)
(optional EPDM, KAPTON®, VITON®)
Housing: Brass (standard)
(optional: 316 Stainless Steel or Electroless Nickel Plated Steel)

PROTECTION:
Exposed Terminals – IP00
DIN HC - IP65
Flying Leads, M12, Deutsch Integral - IP69

REPEATABILITY:
± 1 psi or 5% of Set Point (which ever is greater)

SWITCH TYPE:
Snap Action

MECHANICAL LIFE:
1,000,000 cycles

MEDIA TEMPERATURE RANGE:
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
KAPTON®: -40° to +230°F (-40° to 110°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)

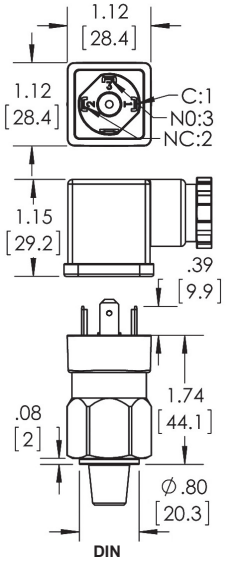
MAXIMUM OVERPRESSURE:
350 PSI (24 Bar)

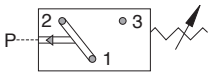
WEIGHT:
0.15 LBS (0.07 kg)

ORDERING INFORMATION

APA	*- * 2*	*- * R*	*- 4M*	*- A*	*- FL*	*- * 1*
Model	**Set Point**	**Direction**	**Port Size**	**Circuit**	**Terminal**	**Options**
APA - Field Adjustable APF - Factory Set	See Above Adjustment Ranges ** Model APF Specify Set Point Required*	R - PSI Rising F - PSI Falling BR - Bar Rising BF - Bar Falling **Omit For Model APA*	2M - 1/8 NPT 4M - 1/4 NPT 2G - 1/8 BSPP 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) 4S - 7/16X20 SAE MALE 4SW - 7/16X20 SAE Swivel 6S - 9/16X18 SAE MALE M10 - M10X1* M12 - M12X1.5 * **Consult Factory for Specials*	A - SPST / NO B - SPST / NC C - SPDT	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws FL - 18" Flying Leads FLL - Advise additional length of leads if required H - DIN 43650A Male Half Only HC - DIN 43650A Cable Clamp HN - DIN 43650A 1/2 Conduit (female) HCC - XXX (Specify Length in Inches) DI - Deutsch Integral M12 - M12 X 1 PP - Packard Connector ** See Page 49 for other electrical termination options*	* - Omit If Standard 1 - VITON® Diaphragm 2 - EPDM Diaphragm 3 - KAPTON® Diaphragm 4 - 316 SS Housing 4A - Steel - Nickel Plated 5 - Spiral Restrictor 6 - Oxygen Cleaned (only in Stainless steel) 7 - Gold Contacts UL - UL Recognized** **For Selected Models Only - Consult Factory 12 - WRAS Approved

PBPA/PBPF
Piston High Pressure Switches





Model	Adjustment Range PSI	Adjustment Range Bar	Avg. Differential PSI	Avg. Differential Bar
1	250 - 1500	17 - 103	30 - 150	2 - 10
2	500 - 3500	35 - 240	75 - 350	5 - 24
3	1000 - 5000	70 - 345	120 - 500	8.5 - 35

ELECTRICAL:
Standard: 5A, 125V/250VAC - U.L. Recognized*
5A, 12/24VDC - U.L. Recognized*
Option -7: 0.02A, 60VDC - U.L. Recognized*
Gold contacts may be required for less than 12 VDC and 20 milliamps

MANUFACTURER'S OTHER RATING:
5A @ 40VDC

WETTED MATERIAL PISTON SEAL:
Piston Seal: Buna-N (Standard)
(optional EPDM, VITON®, Low Temp Nitrile)
Piston: Steel
Housing: Brass
(optional - 316 Stainless Steel)
For Other Materials Consult Factory

PROTECTION:
Exposed Terminals – IP00
DIN HC - IP65
Flying Leads, M12, Deutsch Integral - IP69

REPEATABILITY:
± 1 psi or 5% of Set Point (which ever is greater)

SWITCH TYPE:
Snap Action

MECHANICAL LIFE:
1,000,000 cycles

MEDIA TEMPERATURE RANGE (Piston Seal):
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)
Low Temp Nitrile: -40° to 230°F (-40° to 110°C)

MAXIMUM OVERPRESSURE:
9,000 PSI (620 Bar) - Static
7,500 PSI (517 Bar) - Dynamic

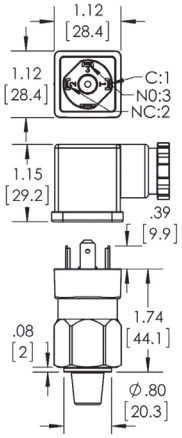
WEIGHT:
Approx. 0.25 lbs (0.12 kg)

ORDERING INFORMATION

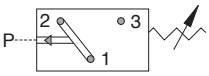
PBPA	*- * 2*	*- * R*	*- 4M*	*- C*	*- H*	*- * 1*
Model	**Set Point**	**Direction**	**Port Size**	**Circuit**	**Terminal**	**Options**
PBPA *Field Adjustable* PBPF *Factory Set*	See Above Adjustment Ranges **Model PBPF Specify Set Point Required*	R - PSI Rising F - PSI Falling BR - Bar Rising BF - Bar Falling **Omit For Model PBPA*	2M - 1/8 NPT 4M - 1/4 NPT 2G - 1/8 BSPP 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) 4S - 7/16X20 SAE MALE 6S - 9/16X18 SAE MALE M10 - M10X1* M12 - M12X1.5 * **Consult Factory for Specials.*	A - SPST / NO B - SPST / NC C - SPDT	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws FL - 18" Flying Leads (Standard) FLL - Specify Wire Length H - DIN 43650A Male Half Only HC - DIN 43650A Cable Clamp HN - DIN 43650A 1/2 Conduit (female) HCC - XXX (Specify Length in Inches) DI - Deutsch Integral M12 - M12 X 1 PP - Packard Connector ** See Page 49 for other electrical termination options*	* - Omit If Standard 1 - VITON® Seal 2 - EPDM Seal 15 - Low Temp Nitrile Seal 4 - 316 SS Housing (Extended Lead time from standard brass) 5 - Spiral Restrictor 6 - Oxygen Cleaned 7 - Gold Contacts 16 - Thread Sealant (Taper Threads Only)

PVS Sensors Inc.®

BPA/BPF
Diaphragm High Pressure Switches



DIN



Model	Adjustment Range PSI	Adjustment Range Bar	Avg. Differential PSI	Avg. Differential Bar	Model	Adjustment Range PSI	Adjustment Range Bar	Avg. Differential PSI	Avg. Differential Bar
1	10 - 85	.35 - 5.8	1.0 - 10	0.07 - 0.7	3	500 - 2500	35 - 172	70 - 300	5 - 21
1A	65 - 300	4.5 - 21	8 - 30	0.55 - 2.1	4	1000 - 6000	69 - 414	150 - 600	10 - 41
2	125 - 600	8.6 - 41	20 - 80	1.4 - 5.5	5	500 - 3500	35 - 241	75 - 300	5 - 21

ELECTRICAL:
Standard: 5A, 125V/250VAC - U.L. Recognized*
5A, 12/24VDC - U.L. Recognized*
Option -7: 0.02A, 60VDC - U.L. Recognized*
Gold contacts may be required for less than 12 VDC and 20 milliamps

MANUFACTURER'S OTHER RATING:
5A @ 40VDC

WETTED MATERIAL:
Diaphragm: Buna-N (Standard)
(optional EPDM, KAPTON®,VITON®, Low Temp Nitrile)
Housing: Zinc-Nickel Plated Steel
(optional Steel - Electroless Nickel and 316 Stainless Steel)

PROTECTION:
Exposed Terminals – IP00
DIN HC - IP65
Flying Leads, M12, Deutsch Integral - IP69

REPEATABILITY:
± 1 psi or 5% of Set Point
(which ever is greater)

SWITCH TYPE:
Snap Action

MECHANICAL LIFE:
1,000,000 cycles

MEDIA TEMPERATURE RANGE:
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
KAPTON®: -40° to +230°F (-40° to 110°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)
Low Temp Nitrile: -40° to 230°F (-40° to 110°C)

MAXIMUM OVERPRESSURE:
Static: 9000 PSI (620 Bar)
Dynamci: 7500 PSI (517 Bar)

WEIGHT:
Approx. 0.2 lbs (0.09 kg)

ORDERING INFORMATION

BPA	***- * 2***	***- * R***	***- 4M***	***- C***	***- H***	***- * 1***
Model	**Set Point**	**Direction**	**Port Size**	**Circuit**	**Terminal**	**Options**
BPA *Field Adjustable* BPF *Factory Set*	See Above Adjustment Ranges **Model BPF Specify Set Point Required*	R - PSI Rising F - PSI Falling BR - Bar Rising BF - Bar Falling **Omit For Model BPA*	2M - 1/8 NPT 4M - 1/4 NPT 2G - 1/8 BSPP 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) 4S - 7/16X20 SAE MALE 4SW - 7/16X20 SAE Swivel 6S - 9/16X18 SAE MALE M10 - M10X1* M12 - M12X1.5 * **Consult Factory for Specials.*	A - SPST / NO B - SPST / NC C - SPDT	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws FL - 18" Flying Leads FLL - Advise additional length of leads if required H - DIN 43650A Male Half Only HC - DIN 43650A Cable Clamp HN - DIN 43650A 1/2 Conduit (female) HCC - XXX (Specify Length in Inches) M12 - M12 X 1 PP - Packard Connector ** See Page 49 for other electrical termination options*	* - Omit If Standard 1 - VITON® Diaphragm 2 - EPDM Diaphragm 3 - KAPTON® Diaphragm * * For Model Ranges 1,1A & 2 Only 15 - Low Temp Nitrile Diaphragm 4 - 316 SS Housing 4A - Steel - Nickel Plated 5 - Spiral Restrictor 6 - Oxygen Cleaned (Only available in Stainless Steel) 7 - Gold Contacts UL - UL Recognized** **For Selected Models Only - Consult Factory

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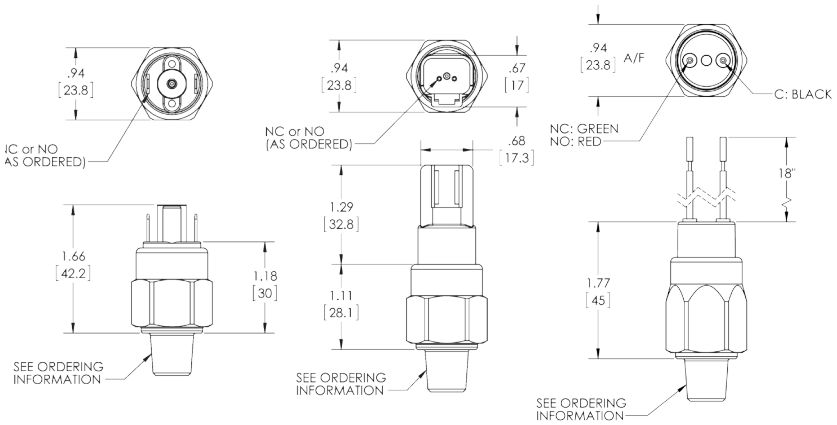
EPA/EPF
High Pressure Switch



Spade | Deutsch Integral | Flying Leads

CE RoHS COMPLIANT

Model	Adjustment Range PSI	Adjustment Range Bar	Avg. Differential
1	1.5 - 30	0.10 - 2.0	Less than 10% of Actuation Point
1A	14.5 - 200	1.0 - 14	
2	125 - 600	8.6 - 41	
3	300 - 2500	21 - 172	
4	3000 - 6000	207 - 414	
5	500 - 3500	35 - 241	

ELECTRICAL:
100 VA Max Voltage 42 VDC
Gold contacts may be required for less than 12 VDC and 20 milliamp

WETTED MATERIAL:
Diaphragm: Buna-N (Standard)
(optional EPDM, KAPTON®, VITON® Low Temperature Nitrile)
Housing: Zinc-Nickel Plated Steel
(optional Steel - Electroless Nickel Plated, 316 Stainless Steel)

PROTECTION:
Exposed Terminals - IP00
Flying Leads & Deutsch Integral - IP69

REPEATABILITY:
± 1 psi or 5% of Set Point
(which ever is greater)

SWITCH TYPE:
Creep Action

MECHANICAL LIFE:
1,000,000 cycles

MEDIA TEMPERATURE RANGE:
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
KAPTON®: -40° to +230°F (-40° to 110°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)
Low Temp Nitrile: -40° to +230°F (-40° to 110°C)

MAXIMUM OVERPRESSURE:
9000 PSI (620 Bar)

WEIGHT:
0.15 lbs (0.07 kg)

ORDERING INFORMATION

EPA	*- * 2*	*- * R*	*- 4M*	*- A*	*- FL*	*- *1*
Model	**Set Point**	**Direction**	**Port Size**	**Circuit**	**Terminal**	**Options**
EPA - Field Adjustable EPF - Factory Set	See Above Adjustment Ranges **Model EPF Specify Set Point Required*	R - PSI Rising F - PSI Falling BR - Bar Rising BF - Bar Falling **Omit for Model EPA*	2M - 1/8 NPT 4M - 1/4 NPT 2G - 1/8 BSPP 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) 4S - 7/16X20 SAE MALE 6S - 9/16X18 SAE MALE M10 - M10X1 * M12 - M12X1.5 * **Consult Factory for Specials.*	A - SPST / NO B - SPST / NC	SP - 1/4 x 1/32 Spade TS - 6 -32 Terminal Screws FL - 18" Flying Leads FLL - Advise additional length of leads if required FLWTF - Weatherpack Tower Female FLWTM - Weatherpack Tower Male FLWSF - Weatherpack Shroud Female FLWSM - Weatherpack Shroud Male DI - Deutsch Integral	* - Omit If Standard 1 - VITON® Diaphragm 2 - EPDM Diaphragm 3 - KAPTON® Diaphragm * * Ranges 1A & 2 Only 15 - Low Temp Nitrile Dia 4 - 316 SS Housing 4A - Steel - Nickel Plated 5 - Spiral Restrictor 6 - Oxygen Cleaned (Only available in Stainless steel) 7 - Gold Contacts

BMA/BMF Pressure Switch
Hand Adjustable

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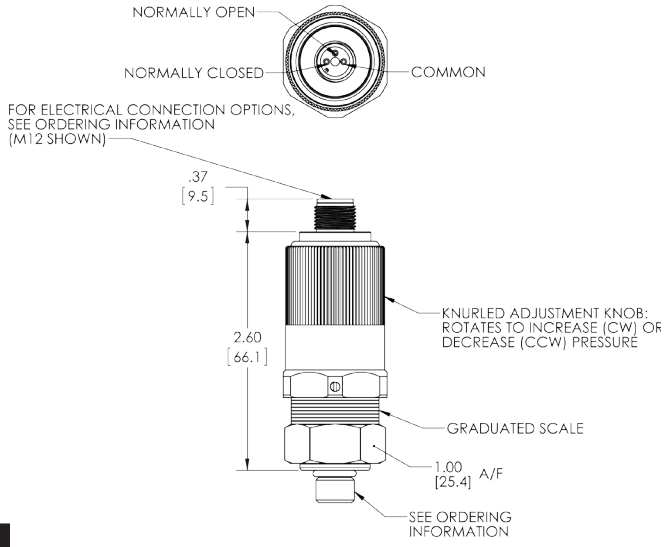

CE RoHS COMPLIANT

Model	Adjustment Range PSI	Adjustment Range Bar	Avg. Differential	
1	10 - 435	0.7 - 30	10 - 20%	Diaphragm
2	500 - 5500	35 - 379	10 - 15%	Piston
3	5000 - 7500	345 - 517	10 - 15%	Piston
4	1500 - 7500	103 - 517	10 - 15%	Piston

ELECTRICAL:
Standard: 10A, 125/250VAC - U.L. Recognized
10A, 12/24VDC - U.L. Recognized
Option -7: 0.1A, 125/250VAC,30 VDC - U.L. Recognized
-8:16 amp,125/250 AC U.L. Recognized
Gold contacts may be required for less than 12 VDC and 20 milliamps

WETTED MATERIAL:
Diaphragm/Seal: Buna-N (Standard)
(optional: EPDM, VITON®, Low Temp Nitrile)
Piston: Steel (For High Pressure Ranges)
Housing: Brass (standard)
(optional: 316 Stainless Steel)

PROTECTION:
Exposed Terminals – IP00
DIN HC - IP65
Flying Leads, M12, & Deutsch Integral - IP69

REPEATABILITY:
± 1 psi or 5% of Set Point (which ever is greater)

SWITCH TYPE:
Snap Action

MECHANICAL LIFE:
1,000,000 cycles

MEDIA TEMPERATURE RANGE:
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)
Low Temp Nitrile: -40° to 230°F (-40° to 110°C)

MAXIMUM OVERPRESSURE:
Range 1: 9000 PSI (620 Bar)
Range 2, 3 & 4: 25,000 PSI (1725 Bar)

WEIGHT:
0.4 lbs (0.16 kg)

Please note: Factory Set Switches (Model BMF) are permanently set and are non-adjustable.

ORDERING INFORMATION

BMA	***- * 2***	***- * R***	***- 4M***	***- C***	***- H***	***- * 1***
Model	**Set Point**	**Direction**	**Port Size**	**Circuit**	**Terminal**	**Options**
BMA - Field Adjustable BMF - Factory Set	See Above Adjustment Ranges Model BMF Specify Set Point Required	R - Rising F - Falling BR- Bar Rising BF - Bar Falling **Omit For Model BMA*	2M - 1/8 NPT 4M - 1/4 NPT 2G - 1/8 BSPP 4F - 1/4" NPT Female 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) 4S - 7/16X20 SAE MALE 4SW - 7/16X20 SAE Swivel 6S - 9/16X18 SAE MALE M10 - M10X1 * M12 - M12X1.5 * ** Consult Factory for Specials.*	A - SPST / NO B - SPST / NC C - SPDT	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws FL - 18" Flying Leads FLL - Advise additional length of leads if required H - DIN 43650A Male Half Only HC - DIN 43650A Cable Clamp HN - DIN 43650A 1/2 Conduit (female) HCC - XXX (Specify Length in Inches) DI - Deutsch Integral (2 pin only) M12 - M12 X 1 * (up to 5 amp rating) ** See Page 49 for other electrical termination options*	* - Omit If Standard 1 - VITON® Diaphragm/ Seal 2 - EPDM Diaphragm/ Seal 15 - Low Temp Nitrile Diaphragm/ Seal 4 - 316 SS Housing 5 - Spiral Restrictor 6 - Oxygen Cleaned 7 - Gold Contacts 8 - 16 Amp

CPA/CPF Pressure Switch

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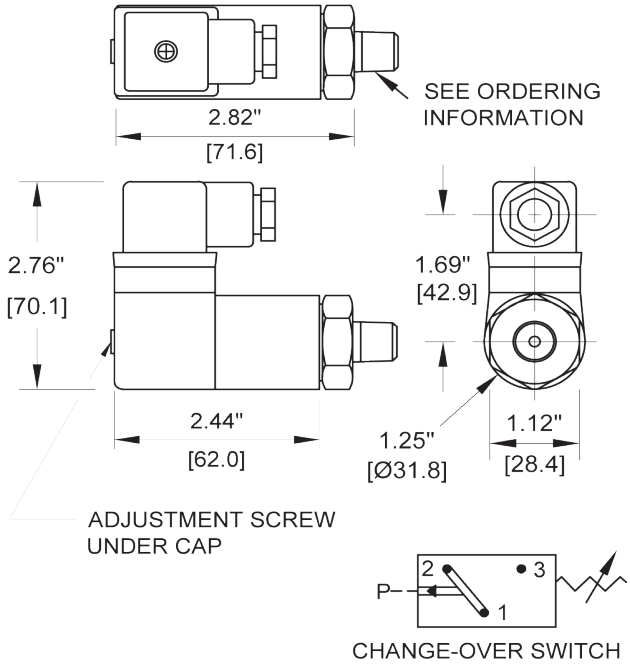


Model	Adjustment Range PSI	Adjustment Range Bar	Avg. Differential PSI	Avg. Differential Bar
1	15 - 120	1 - 8	6 - 11	0.4 - 0.8
2	40 - 450	3 - 30	20 - 110	1.4 - 8
3	250 - 1750	17 - 120	50 - 140	3.4 - 9.6
4	1500 - 7500 *	100 - 520	250 - 350	17 - 35

ELECTRICAL:
Standard: 10A, 250VAC - U.L. Recognized*
Option -7: 0.1A, 125/250VAC - U.L. Recognized*
Option -9: 5 Amp, 30 VDC ONLY- U.L. Recognized*
Gold contacts may be required for less than 12 VDC and 20 milliamps

WETTED MATERIAL:
Diaphragm: Buna-N (standard)
(optional EPDM, KAPTON® and VITON®)
Port: Zinc Plated Steel

PROTECTION:
IP65 except exposed terminals – IP00

HOUSING MATERIAL:
Housing: Aluminum AL2024 Anodized

REPEATABILITY:
± 1 psi or 5% of Set Point (which ever is greater)

SWITCH TYPE:
Snap Action

MECHANICAL LIFE:
1,000,000 cycles

MEDIA TEMPERATURE RANGE:
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
KAPTON®: -40° to +230°F (-40° to 110°C)
VITON®: 0° to +250°F (-18° to 121°C)
(® Registered Trademark of DuPont)

MAXIMUM OVERPRESSURE:
15,000 PSI (1030 Bar)

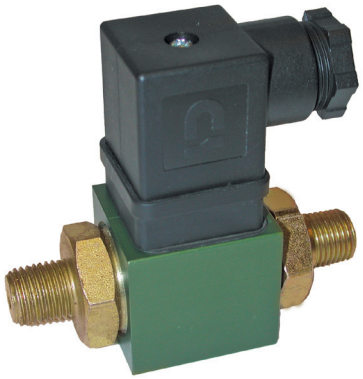
WEIGHT:
0.7 lbs (0.32 kg)

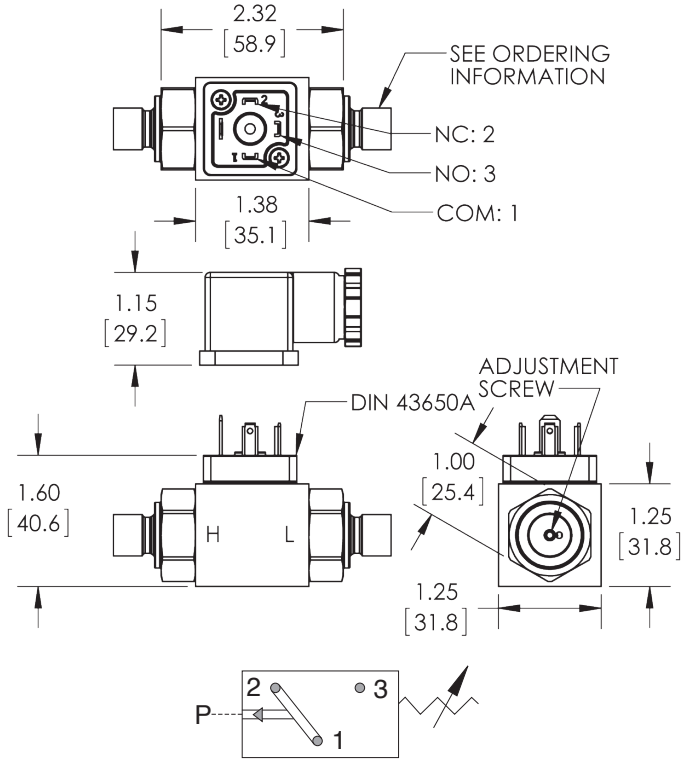
* UL Recognized up to 6000 psi only

ORDERING INFORMATION

CPA	*- * 2*	*- * R*	*- 4M*	*- C*	*- H*	*- * 1*
Model	**Set Point**	**Direction**	**Port Size**	**Circuit**	**Terminal**	**Options**
CPA - Field Adjustable CPF - Factory Set	See Above Adjustment Ranges **Model CPF Specify Set Point Required*	R - PSI Rising F - PSI Falling BR - Bar Rising BF - Bar Falling **Omit For Model CPA*	4M - 1/4 NPT 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) 4S - 7/16X20 SAE MALE 4SW - 7/16X20 SAE Swivel 6S - 9/16X18 SAE MALE *Consult Factory for Specials*	C - SPDT	H - DIN 43650A Male Half Only HC - DIN 43650A Cable Clamp HN - DIN 43650A 1/2 Conduit (female) HCC - XXX (Specify Length in Inches) HC11A - DIN Light NO/NC 110V HC11B - DIN Light NO/NC 12VDC HC11C - DIN Light NO/NC 24VDC HC11D - Indicating Light Green/Red	* - Omit If Standard 1 - VITON® Diaphragm 2 - EPDM Diaphragm 3 - KAPTON® Diaphragm 5 - Spiral Restrictor 6 - Oxygen Cleaned 7 - Gold Contacts UL - UL Recognized** **For Selected Models Only - Consult Factory

FDA/FDF Differential Switch





Model	Adjustment Range PSI	Adjustment Range Bar	Avg. Differential PSI	Avg. Differential Bar
1	5 - 25	0.34 - 1.7	3 - 8	0.2 - 0.55
2	20 - 45	1.4 - 3	5 - 15	0.35 - 1
3	35 - 75	2.4 - 5.2	10 - 20	0.7 - 1.4

ELECTRICAL:
10 AMP - 12/24 VDC - 125/250 VAC
Gold contacts may be required for less than 12 VDC and 20 milliamp
SPDT - Standard Circuit

WETTED MATERIAL:
Diaphragm: Buna-N (standard)
(optional EPDM and VITON®)
Ports: Brass (standard)

HOUSING:
Aluminum AL2024 Anodized

PROTECTION:
IP65 except exposed terminals – IP00

REPEATABILITY:
± 1 psi or 5% of Set Point
(which ever is greater)

SWITCH TYPE:
Snap Action

MECHANICAL LIFE:
1,000,000 cycles

MEDIA TEMPERATURE RANGE:
Buna –N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)

MAXIMUM OVERPRESSURE:
500 PSI (35 Bar)

WEIGHT:
0.40 LBS (0.18 kg)

ORDERING INFORMATION

FDA	*- * 1*	*- 4M / 4M*		*- C*	*- HC*	*- *1*
Model	**Set Point**	**Port Size**		**Circuit**	**Terminal**	**Options**
FDA - Field Adjustable FDF - Factory Set	See Above Adjustment Ranges **Model FDF Specify Set Point Required*	**Hi Port** 4M - 1/4 NPT MALE 4G - 1/4 BSPP MALE 4S - 7/16X20 SAE MALE	**Low Port** 4M - 1/4 NPT MALE 4G - 1/4 BSPP MALE	C - Circuit	H - DIN 43650A Male Half Only HC - DIN 43650A Cable Clamp HN - DIN 43650A 1/2 Conduit (female) HCC - XXX (Specify Length in Inches) HC11A - DIN Light NO/NC 110V HC11B - DIN Light NO/NC 12VDC HC11C - DIN Light NO/NC 24VDC HC11D - Indicating Light Green/Red	* - Omit If Standard 1 - VITON® Diaphragm 2 - EPDM Diaphragm 5 - Spiral Restrictor 7 - Gold Contacts

XDPA / XDPF
Adjustable Differential Switch

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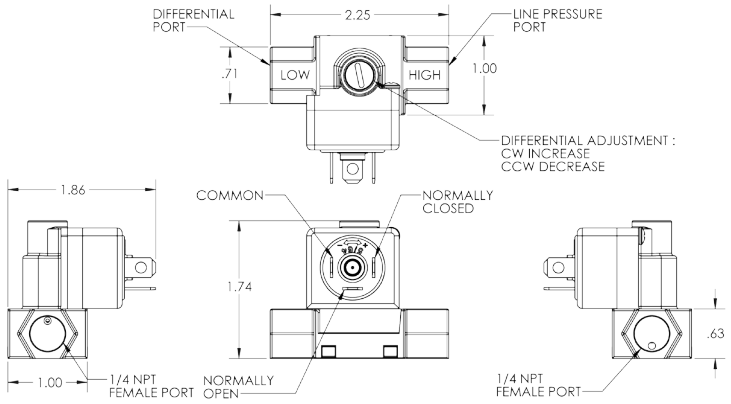


CE RoHS COMPLIANT

Model	Adjustment Range PSI	Adjustment Range Bar	Avg. Differential PSI	Avg. Differential Bar
1	2 - 40	0.14 - 2.8	1 - 6	0.1 - 0.4
2	20 - 75	2.4 - 5.2	5 - 9	0.4 - 0.6

ELECTRICAL:
Standard: 5A, 125V/250VAC - U.L. Recognized*
5A, 12/24VDC - U.L. Recognized*
Option -7: 0.02A, 60VDC - U.L. Recognized*
Gold contacts may be required for less than 12 VDC and 20 milliamps

MANUFACTURER'S OTHER RATING:
5A @ 40VDC

WETTED MATERIAL:
Diaphragm: Buna-N (standard)
((optional EPDM, KAPTON®, VITON®)

HOUSING:
Aluminum AL2024 Anodized
Body: Glass filled Nylon

PROTECTION:
Exposed Terminals – IP00
Flying Leads, M12, Deutsch Integral - IP69

REPEATABILITY:
± 1 psi or 5% of Set Point (which ever is greater)

SWITCH TYPE:
Snap Action

MECHANICAL LIFE:
1,000,000 cycles

MEDIA TEMPERATURE RANGE:
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
KAPTON®: -40° to +230°F (-40° to 110°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)

MAXIMUM OVERPRESSURE:
350 PSI (24 Bar)

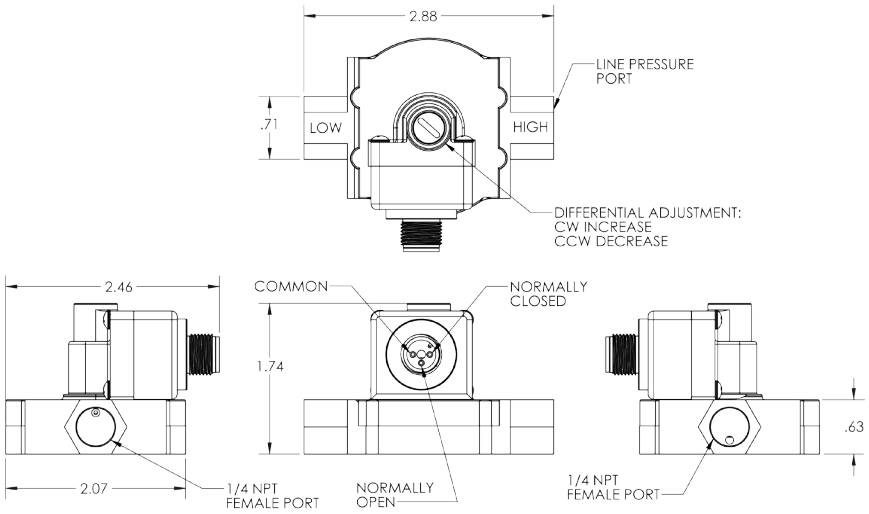
WEIGHT:
0.06 LBS (0.03 kg)

ORDERING INFORMATION

XDPA	*- * 1*	*-2F / 2F*		*- C*	*- M12*	*- *1*
Model	**Set Point**	**Port Size**		**Circuit**	**Terminal**	**Options**
XDPA - Field Adjustable XDPF- Factory Set	See Above Adjustment Ranges **Model XDPF Specify Set Point Required*	**Hi Port** 2F - 1/8 NPT FEMALE 4F - 1/4 NPT FEMALE *Consult Factory for Specials*	**Low Port** 2F - 1/8 NPT FEMALE 4F - 1/4 NPT FEMALE *Consult Factory for Specials*	A - SPST / NO B - SPST / NC C - SPDT	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws FL - 18" Flying Leads FLL - Advise additional length of leads if required H - DIN 43650A Male Half Only HC - DIN 43650A Cable Clamp HN - DIN 43650A 1/2 Conduit (female) DI - Deutsch Integral (2 pin only) M12 - M12 X 1	* - Omit If Standard 1 - VITON® Diaphragm 2 - EPDM Diaphragm 3 - KAPTON® Diaphragm 6 - Oxygen Cleaned 7 - Gold Contacts

LDPA / LDPF
Adjustable Differential Switch

Sensors Inc.®



CE RoHS COMPLIANT

Model	Adjustment Range PSI	Bar
1	0.5 - 10	0.03 - 0.7

See Chart Below for Delta p

Line Pressure PSIG	Line Pressure Bar	Minimum Differential PSIG	Minimum Differential Bar	Maximum Differential PSIG	Maximum Differential Bar
10	0.7	0.5	0.03	9	0.6
20	1.4	0.5	0.03	10	0.7
40	2.8	0.8	0.05	10	0.7
60	4.0	0.8	0.05	10	0.7
80	5.5	1.0	0.07	10	0.7
100	7.0	1.3	0.09	10	0.7
120	8.3	1.5	0.10	10	0.7
140	10	1.75	0.12	10	0.7

ELECTRICAL:
Standard: 5A, 125V/250VAC - U.L. Recognized*
5A, 12/24VDC - U.L. Recognized*
Option -7: 0.02A, 60VDC - U.L. Recognized*
Gold contacts may be required for less than 12 VDC and 20 milliamps

MANUFACTURER'S OTHER RATING:
5A @ 40VDC

WETTED MATERIAL:
Diaphragm: Buna-N (standard)
((optional EPDM, KAPTON®, VITON®)

HOUSING:
Aluminum AL2024 Anodized
Body: Glass filled Nylon

PROTECTION:
Exposed Terminals – IP00
Flying Leads, M12, Deutsch Integral - IP69

REPEATABILITY:
± 1 psi or 5% of Set Point
(which ever is greater)

SWITCH TYPE:
Snap Action

MECHANICAL LIFE:
1,000,000 cycles

MEDIA TEMPERATURE RANGE:
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
KAPTON®: -40° to +230°F (-40° to 110°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)

MAXIMUM OVERPRESSURE:
350 PSI (24 Bar)

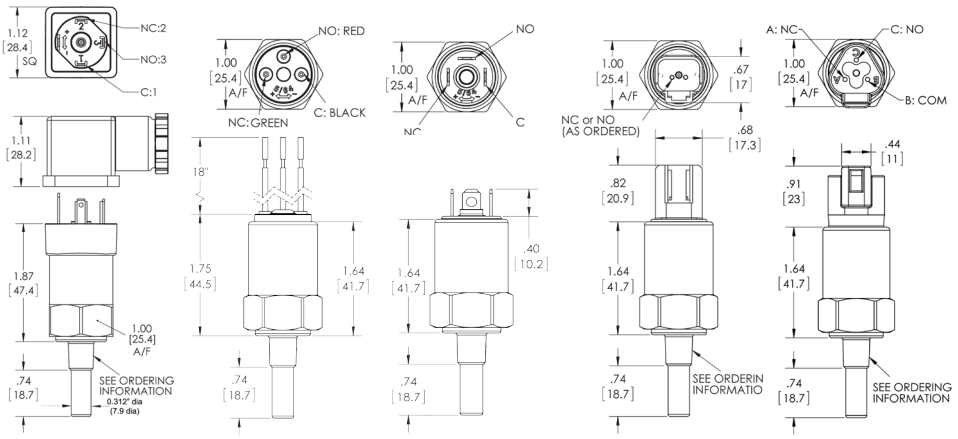
WEIGHT:
0.06 LBS (0.03 kg)

ORDERING INFORMATION

LDPA	*- * 1*	*- 4F / 4F*		*- C*	*- M12*	*- *1*
Model	**Set Point**	**Port Size**		**Circuit**	**Terminal**	**Options**
LDPA - Field Adjustable LDPF- Factory Set	See Above Adjustment Range **Model LDPF Specify Set Point Required*	**Hi Port** 2F* - 1/8 NPT FEMALE 4F - 1/4 NPT FEMALE *Consult Factory for Specials* ** Requires an adaptor*	**Low Port** 2F* - 1/8 NPT FEMALE 4F - 1/4 NPT FEMALE *Consult Factory for Specials* ** Requires an adaptor*	A - SPST / NO B - SPST / NC C - SPDT	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws FL - 18" Flying Leads FLL - Advise additional length of leads if required H - DIN 43650A Male Half Only HC - DIN 43650A Cable Clamp HN - DIN 43650A 1/2 Conduit (female) DI - Deutsch Integral (2 pin only) M12 - M12 X 1	* - Omit If Standard 1 - VITON® Diaphragm 2 - EPDM Diaphragm 3 - KAPTON® Diaphragm 6 - Oxygen Cleaned 7 - Gold Contacts

PVS Sensors Inc.®

TAS/TFS Temperature Switch
Fluid Expansion



DIN | **Flying Leads** | **Spade** | **Deutsch Integral - 2 Pin** | **Deutsch Integral - 3 Pin**

(Probe length varies per port, .74" is standard for 1/8" npt)

*The **TAS/TFS** is a temperature switch for protection of all types of engines, pumps, compressors, gear boxes, hydraulic reservoirs, marine and industrial power plants. It provides fast accurate temperature response through a brass probe that protrudes into the application.*

ELECTRICAL:
Standard: 5A, 125/250 VAC - UL Recognized
5A, 12/24 VDC - UL Recognized
Option -7: 0.02A, 60 VDC - UL Recognized
Gold contacts may be required for less than 12 VDC and 20 milliamp
Electrical Ratings - Other
3 AMP - Up to 30 VDC

CIRCUIT:
SPST - Normally Open
SPST - Normally Closed
SPDT

PROTECTION:
Exposed Terminals – IP00
DIN HC - IP65
Flying Leads & Deutsch Integral - IP69

MAX WORKING PRESSURE:
750 PSI (52 BAR)

HOUSING MATERIAL:
Brass

TOLERANCE:
± 6°F (3°C)

TEMPERATURE SET POINT RANGE:
40°F - 300°F (5°C - 150°C)

DIFFERENTIAL:
8°F - 16°F

MAXIMUM OPERATING TEMPERATURE:
325°F (163°C)

MAX OVERLOAD:
50°F (28°C) Above set point

ORDERING INFORMATION

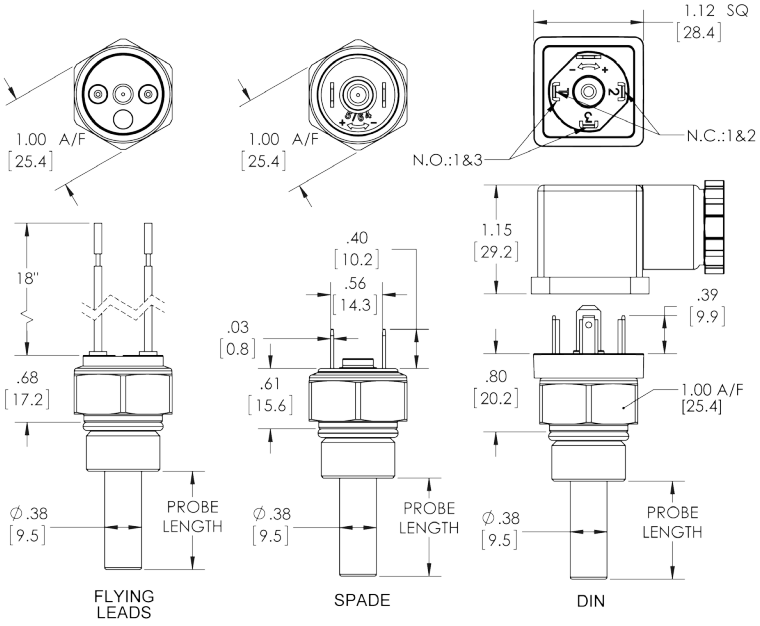
TFS	***- 120F ****	***- R****	***- 4M***	***- A***	***- SP***	***- 7 ****
Model	**Temperature Set Point**	**Direction**	**Port Size**	**Circuit**	**Terminal**	**Options**
TAS Field Adjustable TFS Factory Set	** Omit for TAS Adjustable Model* Specify Set Point Required F or C 40°F - 300°F (5° - 150°C)	** Omit for TAS Adjustable Model* R - Temperature Rising F - Temperature Falling	2M - 1/8 NPT 4M - 1/4 NPT 6M - 3/8 NPT 8M - 1/2 NPT 6S- 9/16X18 SAE MALE 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) 8S - 3/4-16 SAE MALE	A - SPST / NO B - SPST / NC C - SPDT	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws FL - Flying Leads 18" FLL - Advise additional length of leads if required H - DIN43650A Male Half Only HC - DIN43650A Cable Clamp HN - DIN43650A 1/2" Conduit (female) HCC - 36" Cable DI - Deutsch Integral (2 pin and 3 pin) M12 - M12 X 1	** Omit for Standard* 7 - Gold Contacts ****Call Factory for Shrink Wrap Options & Pricing

PVS Sensors Inc.®

MTB Temperature Switch

Bi-Metal

Direct Action - Gold Diffused Fine Silver Contacts



*The **MTB** series is a bi-metal temperature switch with factory set point used for protection of all types of internal combustion engines, pumps, compressors, gear boxes, hydraulic reservoirs, marine and industrial power plants and fire suppression systems.*

ELECTRICAL:
6 Amp @ 120 VAC (Resistive)
5 Amp @ 120 VAC (Inductive)

MANUFACTURER'S OTHER RATING:
6A @ 24 VDC (Resistive)
5A @ 24 VDC (Inductive)

CIRCUIT:
SPST - NO SPST - NC

HOUSING MATERIAL:
Standard: Brass Optional: Stainless Steel

PROTECTION:
IP00 - Spade termination
IP69 - Flying Lead

SETTING TOLERANCE:
± 5°F (±2.8°C)

MAX PROBE PRESSURE:
5000 PSI (345 Bar)

PROBE LENGTH:
See Ordering Information

TEMPERATURE RANGE:
40° - 300°F (4° - 150°C)

MAX WORKING TEMP:
325°F (163°C)

TEMP DIFFERENTIAL:
6.5°F (3°C) (Approximate)

WEIGHT:
0.10 lbs (0.05kg)

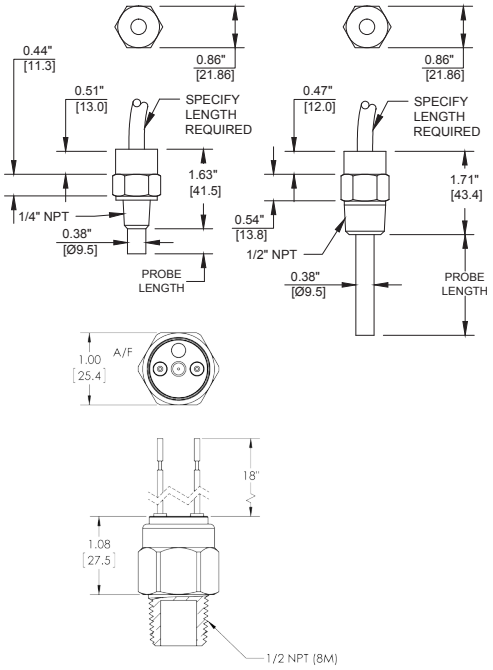
ORDERING INFORMATION

MTB	*- 100F*	*- R*	*- 4M*	*- A*	*- SP*	*- A*	*- 4 **
Model	**Temperature Set Point**	**Direction**	**Port Size**	**Circuit**	**Terminal**	**Probe Length**	**Options**
MTB	Specify Set Point Required F or C 40° to 300°F (5° to 150°C)	R - Temperature Rising F - Temperature Falling	4M - 1/4 NPT 6M - 3/8 NPT 8M - 1/2 NPT 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) 8S - 3/4-16 SAE MALE M12 - M12 X 1.5 M16 - M16 X 1.5	A - SPST NO B - SPST NC	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws FL - Flying Leads 18" FLL - Advise additional length of leads if required FLDR - Flying Leads 18" with 2 pin deutsch receptacle C - Cable (advise length required) H - DIN43650A Male Half Only HC - DIN43650A Cable Clamp HN - DIN43650A 1/2" Conduit (female) DI - Deutsch Integral (2 Pin Only)	A - 1/2" B - 1" C - 2" D - 1-1/2" E - 1-3/4" F - 3/4" Call Factory for Custom Probe Lengths	** Omit for Standard* 4 - Stainless Steel IG - Internal Ground

PVS Sensors Inc.®

TBM Temperature Switch

Bi-Metal



(Hex will vary depending on electrical termination)

*The **TBM** series is a Bi-Metal temperature alarm switch with a factory set point. The switches are used for protection of all types of internal combustion engines, pumps, compressors, gear boxes, hydraulic reservoirs, marine and industrial power plants. For more compact and those tight mounting areas use the switch with the recess in the port for where the fluid flows.*

ELECTRICAL:
15A - 250 VAC (Resistive)
15A - 24 VDC (Resistive)

CIRCUIT:
SPST - NO
SPST - NC

HOUSING MATERIAL:
Brass
(Hex will vary depending on electrical termination)

PROTECTION:
IP67

SETTING TOLERANCE:
± 5°F (± 3°C)

MAX PROBE PRESSURE:
7500 PSI (520 Bar)

PROBE LENGTH:
See Ordering Information

TEMPERATURE RANGE:
75° - 290°F (24° - 143°C)

MAX WORKING TEMP:
400°F (204°C)

TEMP DIFFERENTIAL:
27°F (15°C) AVERAGE

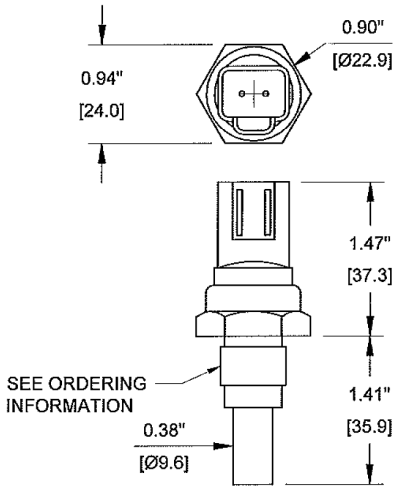
WEIGHT:
0.70 lbs (0.32 kg)

Port	Probe Diameter
1/8" npt	5/16" (.312)
1/4" npt	3/8" (.375)
3/8" npt	1/2" (.500)
1/2" npt	1/2" (.500)
3/4-16 SAE	1/2" (.500)

ORDERING INFORMATION

TBM	***- 100F***	***- R***	***- 8M***	***- B***	***- FL***	***- *A***	***- *4***
Model	**Temperature Set Point**	**Direction**	**Port Size**	**Circuit**	**Terminal**	**Probe Lgth**	**Options**
TBM	Specify Set Point Required F or C 75° to 290°F (24° to 143°C)	R - Temperature Rising F - Temperature Falling	2M - 1/8 NPT 4M - 1/4 NPT 6M - 3/8 NPT 8M - 1/2 NPT 8S - 3/4-16 SAE	A - SPST / NO B - SPST / NC	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws C - Cable (advise length required) FL - 18" Flying Leads FLL - Advise additional length of leads If required H - DIN 43650A Male Half Only HC - DIN 43650A Cable Clamp HN - DIN 43650A 1/2 Conduit (female) HCC - XXX (Specify Length in Inches)	**** Omit for No Probe*** A - 1/2" B - 1" C - 2"	* - Omit If Standard 4 - Stainless Steel IG - Internal Ground

TSS Temperature Sender



*Model **TSS** Temperature Sender is ideally suited for use in engines, pumps, compressors, gearboxes and other applications where resistance to the elements is the primary consideration. It is used in conjuction with either a temperature gauge or an ECU (Engine Control Unit) to sense the temperature of your application. The TSS provides fast, accurate temperature response through a thermistor that is located in the tip of the probe protruding from the main body of the unit. A reliable electrical connection, Deustch DT 2-way connector is rated at IP69.*

ELECTRICAL:
5V Nominal

PROTECTION:
IP69 (When connected to mating plug)

ENVIRONMENT TEMPERATURE:
-40°F to +257°F (-40° to +125°C)

INSULATION TYPE:
Isolated Ground

RESISTANCE TOLERANCE:
+/- 10%

WEIGHT:
.08 lbs (0.03 kg)

BODY MATERIAL:
Brass

TYPE	TEMPERATURE °F (°C)	77 (25)	104 (40)	122 (50)	140 (60)	158 (70)	176 (80)	194 (90)	212 (100)	230 (110)
A	RESISTANCE OHMS	500	282.1	197.6	140	101.5	74.6	55.6	41.9	32
B	RESISTANCE OHMS	2000	1070	722.6	497.6	349	248.8	179.9	131.8	98
C	RESISTANCE OHMS	300	-	121	87.4	64.4	48.2	36.7	28.3	-
D	RESISTANCE OHMS	8000	-	2765	1868	1284	898	636.6	457.7	334.1

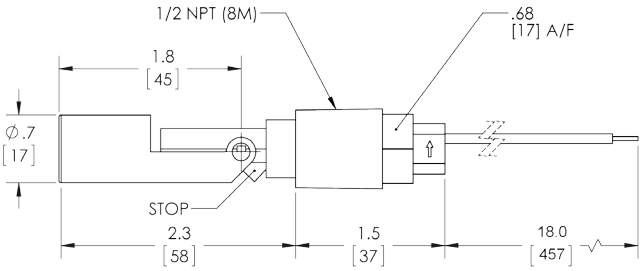
ORDERING INFORMATION

Minimum Order Required - Consult Factory

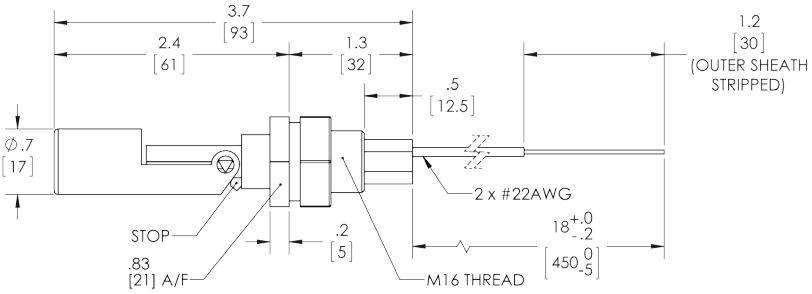
TSS	***- D***	***- 8M***
Model	**Type**	**Port Size**
TSS	See Chart Above	2M - 1/8" NPT 4M - 1/4" NPT 8M - 1/2" NPT 8S - 3/4-16 SAE M16 - M16 X 1.5

SML Level Switch

Model: SMLN



Model: SMLC



*The **SML** series is a horizontal mount level switch ideal for monitoring Water and Oil levels*

ELECTRICAL:
Voltage: AC220V/1A; DC24V/0.5A
Switch rating: 70VA
Wires: 18" long cable, 22 gauge

CIRCUIT:
Normally Open / Normally Closed

HOUSING MATERIAL:
Housing: Polypropylene
Optional: Stainless Steel
Float: Polypropylene
Optional: Stainless Steel

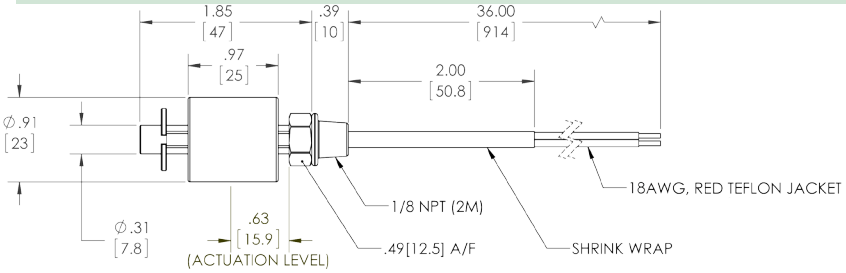
WORKING TEMPERATURE:
Polypropylene: -4°F to +176°F (-20° to +80°C)
Stainless Steel: -4°F to +212°F (-20° to +100°C)

Depending on the mounting position, the float on the switches can either rise or lower with the liquid level. By rotating the switch 180°, the switch operation can be Normally Open or Normally Closed

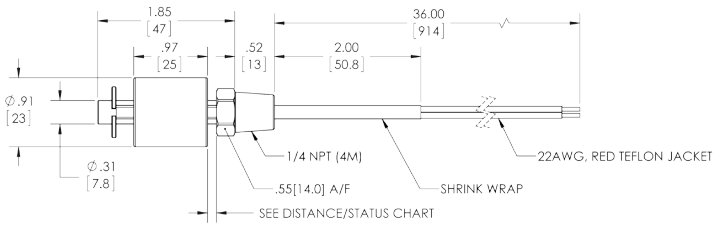
ORDERING INFORMATION

SMLN	***- 8M***	***- C***	***- *SS***
Model	**Connection**	**Terminal**	**Options**
SMLN - npt external mounting SMLC - internal clamp mounting	8M - 1/2" NPT (SMLN only) M16 - M16 (SMLC only) **Consult Factory for Other Connections**	C - 18" standard cable length **Consult Factory for other than standard length**	* - Omit if Standard SS - Stainless Steel

VLS Float Level Switch



(Above dimensions are for the Plastic Stem design only)



Slosh Shield

DISTANCE	SWITCH STATUS
.118 ±.059/[3 ±1.5]	ON
.177 ±.059/[4.5 ±1.5] TO.295 ±.059/[7.5 ±1.5]	TRANSITION
.295 ±.059/[7.5 ±1.5]	OFF

*The **VLS** series is a Float Level Switch that is ideal for monitoring Water and Oil levels.*

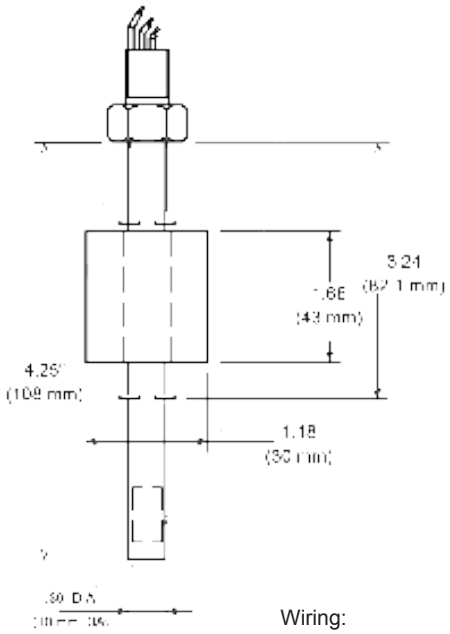
ELECTRICAL:
10 w, 1A, 150VAC / 200VDC
Switch: SPST
Units are supplied as normally open unless otherwise specified.
Circuit can be changed by inverting float on the stem

MATERIAL:
Float: Buna
Stem: Nylon(Std)
Optional: Brass,
Stainless Steel

ORDERING INFORMATION

VLS	*- 2M*	*- FL*	*- A*	*- * SS*
Model	**Connection**	**Terminal**	**Circuit**	**Stem Material**
VLS	2M - 1/8" NPT 4M - 1/4" NPT	FL36 - Standard 36" leads FLL - Advise additional length of leads if other than standard 36" **** Call Factory for Shrink Wrap Options & Pricing	A - Normally Open (Standard) B - Normally Closed	* Omit if Standard B - Brass SS - Stainless Steel SLS - Slosh Shield

TFL Temperature / Level Switch



Wiring:
Red : Temperature
Yellow: Level
Balck: Common

*The **TFL** series is a combination Level and Termperature Switch that monitors both liquid level and temperature.These switches are used to operate components such as valves, motor start/stop switches, alarms, and warning lights.*

ELECTRICAL:

Temperature Switch:
5.0 Amp, 250VAC/24VDC
Level:
50W, 2.5A, 300VAC/350VDC

Wires: 36" long, 20 AWG, 600v

Float can be inverted to change level switch function N.O.to N.C. or vice versa in the field

SETTING TOLERANCE:
± 10°F (± 5°C)

MAXIMUM PRESURE:
150 psi (10 bar)

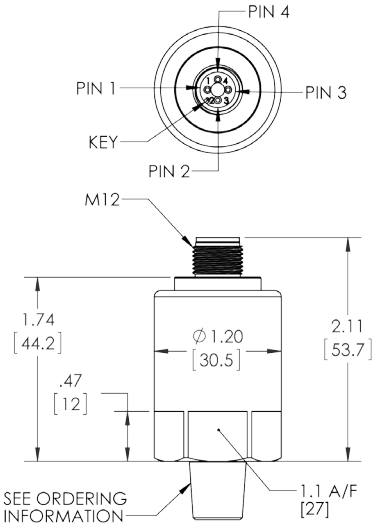
OPERATING TEMPERATURE:
Oil: -40° to + 285°F (-40° to +140°C)

HOUSING MATERIAL:
Stem and Port : Brass
Float : Buna (compatible with hydraulic oil)
Retainer: Stainless Steel

ORDERING INFORMATION

TFL	*- 70F*	*- R*	*- 4M*	*- A*	*- FL36*	*- LNO*
Model	**Temperature Set Point**	**Direction**	**Connection**	**Switch Circuit**	**Terminal**	**Level Circuit**
TFL	Set Point Range 40°F - 285°F 5°C - 140°C Indicate temperature set point in degrees F (5°C (11°F) increments)	R - Temp Rising F - Temp Falling	4M - 1/4" NPT 4F - 1/4" NPT Female (17mm hex)	A - Normally Open B - Normally Closed	FL36 - 36" standard leads **** Call Factory for Shrink Wrap Options & Pricing	LNO - Normally Open LNC - Normally Closed (Invert Float to change level switch function N.O.to N.C. or vice versa in the field) LNO = Float Resting on Retaining Ring

PTT Pressure/Temperature Transducer



Sensing Element: Ceramic

*The **PTT** Pressure / Temperature Transducer in one, offers high quality, high stability, stainless steel compact design, ideal for the industrial environment.*

ELECTRICAL:

4 - 20mA	10 - 30 vdc (3 wire)
0 - 5V,	8 - 30 vdc (4 wire)
0 - 10V	12 - 30 vdc (4 wire)
1 - 5V	8 - 30 vdc (4 wire)
0.5 - 4.5V (ratiometric)	5 vdc (4 wire)

ACCURACY:
± 0.5% (Full Scan)

PROTECTION:
IP65 with DIN
IP67 with Packard Plug, Cable
M12X1, Integral Deustch

RESPONSE TIME:
<10 milliseconds

OPERATING TEMPERATURE:
-58° to 400°F (-50° to 200°C)

COMPENSATION TEMPERATURE:
14° to 176°F (-10° to 80°C)

STORAGE TEMPERATURE:
-58° to 257°F (-50° to 125°C)

INSULATION:
>100m Ω@50V

PRESSURE / TEMPERATURE RANGE:
0 - 5000 PSI (0 - 345 Bar)
-40° to 300°F (-40° to 149°C)

OVERLOAD PRESSURE:
2 X Full Scan

MATERIAL:
Wetted Area: Ceramic
Body: 304 Stainless Steel

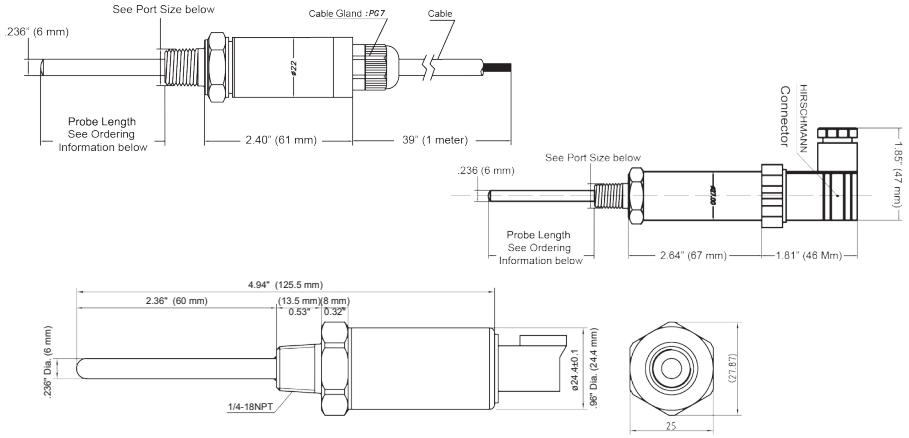
MEDIUM COMPATIBILITY:
Corrosive medium compatible with Cr18Ni9Ti,ceramics

ORDERING INFORMATION

PTT	***- A***	***- 0/3000***	***-30/250F***	***- 4M***	***- HCM***
Model	**Type**	**Pressure Range**	**Temperature Range**	**Port Size**	**Terminal**
PTT	A: 4 - 20 mA (3 wire) B: 0 - 5V (4 wire) C: 0 - 10V (4 wire) D: 0.5 -4.5V (4 wire) E: 1 - 5V (4 wire)	Specify Pressure Range Required	Specify Temperature Range Required (°F or °C)	4M - 1/4 NPT 4S - 7/16 x 20 SAE Male 4G - 1/4 BSPP (undercut for o-ring seal) 4GS- 1/4 BSPP (no undercut) **Consult Factory for other sizes**	PP - Packard Plug C - Cable (39" long) M - M12X1 HC- DIN 43650A Cable Clamp

TTR Temperature Transducer

PVS Sensors Inc.®



Wiring Data Information													
Mini DIN Connector PIN Function (- 80)					**Cable Connector WIRE Function (-.85)**					**Deutsch 2 Pin Wiring (- 80)**			
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4	Signal Output	RED	BLUE	BLACK	WHITE	Signal Output	Pin 1	Pin 2	
mA	Supply V+	Output	N/A	N/A	mA	Supply V+	N/A	Output	N/A	mA	Supply V+	Output	
V	Supply V+	Output	Common	N/A	V	Supply V+	N/A	Common	Output	V	N/A	N/A	
M12 PIN Function (- 87)					**Packard Plug PIN/WIRE Function (- 89)**					**Deutsch 3 Pin Wiring (- 81)**			
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4	Signal Output	A	B	C		Signal Output	Pin A	Pin B	Pin C
mA	Supply V+	N/A	N/A	Output	mA	N/A	Supply V+	Output		mA	N/A	N/A	N/A
V	Supply V+	N/A	Common	Output	V	Common	Supply V+	Output		V	V+	Common	Output

*The **TTR** series is a temperature transducer consisting of a temperature header, module and housing. A signal conditioned output is proportioned to the applied temperature which is amplified, compensated and trimmed by a built in digital ASIC. Heat conductive silicon grease is filled inside the head to ensure the quick conductive of heat and avoid depress for the resistor. Widely used in the following applications: medical equipment, water and oil tanks, refrigerators and constant temperature equipment.*

ELECTRICAL:

OUTPUT:	SUPPLY:
4 - 20 mA (2 wire)	10 - 30 VDC(2 wire)
0-5V	10 - 30 VDC(3 wire)
0-10V	10 - 30 VDC(3 wire)
1-5V	10 - 30 VDC(3 wire)
0.5 - 4.5 V	5 VDC(3 wire)

STABILITY:
< 0.25% / Yr (typical)

ACCURACY:
± 0.5% Full Scale

MATERIAL:
304 Stainless Steel

PROTECTION:
IP65 with Standard DIN
IP67 with Cable, Packard Plug, Deustch Integral,M12

RESPONSE TIME:
<10 Milliseconds

PROBE DIAMETER:
.236" (6mm)

STORAGE TEMPERATURE:
-58° - 400°F (-50° - 205°C)

TEMPERATURE RANGE: (*)(**)
-40° - 400°F (-40° - 205°C)
* Special High Temperature is available - Inquire
** Special Calibration Available on Request

TEMPERATURE COEFFICIENT:
≤ ± 0.005%/v

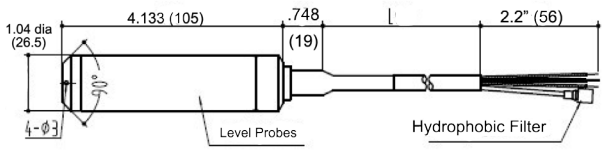
ERROR ON SUPPLY VOLTAGE:
≤ ± 0.005%/v

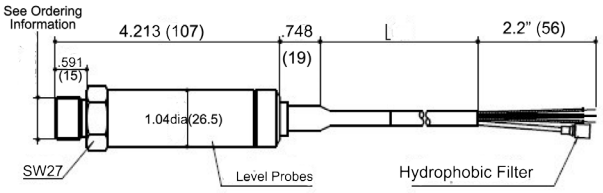
MAXIMUM PRESSIRE:
232 PSI ***
*** Consult Factory for Higher Pressure

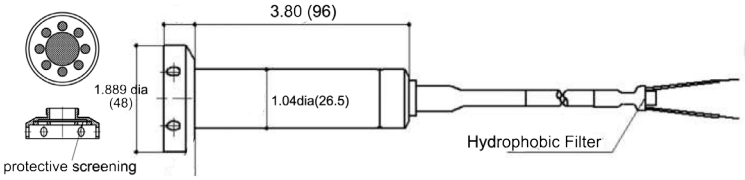
ORDERING INFORMATION

TTR	***- A***	***- 0/300***	***- 4M***	***- HCM***	***- A***	***- 80 ****
Model	**Set Type**	**Temperature Range**	**Port Size**	**Terminal**	**Probe Length**	**Pin Out**
TTR	A: 4 - 20mA (2 Wire) B: 0 - 5V (3 Wire) C: 0 - 10V (3 Wire) D: 0.5 - 4.5V (3 Wire) E: 1 - 5V (3 Wire)	Specify Temperature Range -40° - 400°F (-40° - 205°C) REQUIRED °F or °C	4M - 1/4 NPT 4S - 7/16 X 20 SAE Male 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) 8M - 1/2 NPT Consult Factory for other sizes	C - 39" (1 Meter) Cable (Std) M - M12 X 1 PP - Packard Connector H - DIN 43650C Male Half Only HCC - 36" Cable HCM - DIN 43650C Mini DIN DI - Deutsch Integral	A - 4" B - 6" C - 10" D - 1" E - 1-1/2"	* Advise your required Pin Out, Refer to Page 50 other Pin Out Options

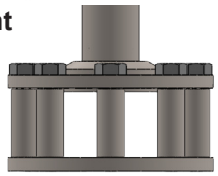
PTL Level Transducer







Optional Anti-Clog Attachment



Sensing Element: Piezoresistive Silicon Chip

The PTL pressure transducer is a heavy duty constructed design suitable for many applications for wells, resevoirs, lakes, rivers, sewage treatment plants, water tanks, ground water monitoring and surface water monitoring.

ELECTRICAL:

OUTPUT:	SUPPLY:
4 - 20 mA	10 - 36 VDC(2 wire)
0-5V	10 - 36 VDC(3 wire)
0-10V	10 - 36 VDC(3 wire)
1-5V	10 - 36 VDC(3 wire)
0.5 - 4.5 V	5 VDC (3 wire)

ACCURACY:
± 0.5% Full Scale

INSULATION:
200mΩ/250VDC

PROTECTION:
IP68 with Cable

RESPONSE TIME:
≤1 Millisecond (Up to 90%FS)

MATERIAL:
Sensing Element: Piezoresistive Silicon Chip
Body: 304 Stainless Steel

PRESSURE RANGE:
0 - 285 PSI (0 - 20 BAR)

STORAGE TEMPERATURE:
-40° - 257°F (-40° - 125°C)

OPERATE TEMPERATURE
-4° to 185°F (-20° to 85°C)

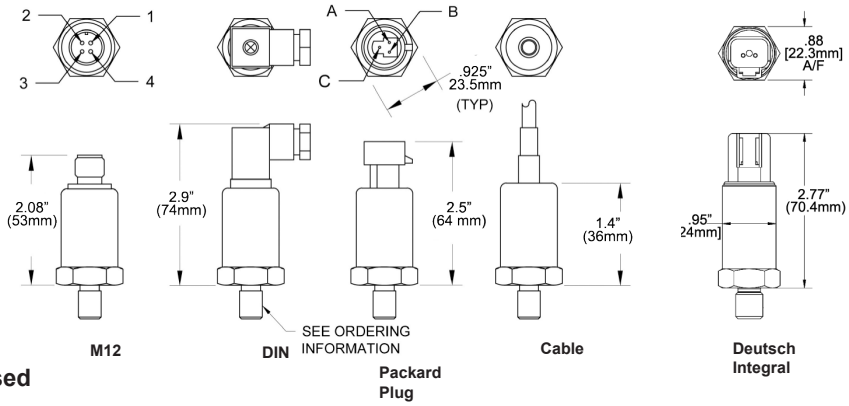
OVERLOAD PRESSURE:
1.5 times Full Scan

ORDERING INFORMATION

PTL	*- A*	*- 0/5*	*- 4M*	*- C*	*- AC**	*- 80 **
Model	**Type**	**Pressure Range**	**Connection**	**Terminal**	**Options**	**Pin Out**
PTL	A: 4 - 20 mA (2 wire) B: 0 - 5V (3 wire) C: 0 - 10V (3 wire) D: 0.5 -4.5V (3 wire) E: 1-5V (3 wire)	Specify Pressure Range Required *Note: Standard Ranges 0/5 PSI, 0/10 PSI, 0/145 PSI, 0/285 PSI* **Consult Factory for Other Ranges**	4M - 1/4" NPT 4S - 7/16 X 20 SAE Male 4G - 1/4" BSPP* T - Submersible ** Non-standard*	C- Cable (Specify Cable Length, Min:3ft)	AC - Anti-Clog Attachment	* Advise your required Pin Out, Refer to Page 50 other Pin Out Options

PVS Sensors Inc.®

GTC Pressure Transducer



CE **Sensing Element: Glass Micro-Fused**

Wiring Data Information													
DIN Connector PIN Function (- 81)					**Cable Connector WIRE Function (- 81)**					**Deutsch 2 Pin Wiring (- 80)**			
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4	Signal Output	RED	GREEN	YELLOW	BLACK	Signal Output	Pin 1	Pin 2	
mA	Supply V+	Output	N/A	N/A	mA	Supply V+	Output	N/A	N/A	mA	Supply V+	Output	
V	Supply V+	Common	Output	N/A	V	Supply V+	Common	Output	N/A	V	N/A	N/A	
M12 PIN Function (- 80)					**Packard Plug PIN/WIRE Function (- 80)**					**Deutsch 3 Pin Wiring (- 81)**			
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4	Signal Output	PIN A	PIN B	PIN C		Signal Output	Pin A	Pin B	Pin C
mA	Supply V+	Output	N/A	N/A	mA	Supply V+	Output	N/A		mA	N/A	N/A	N/A
V	Supply V+	Output	Common	N/A	V	Supply V+	Output	Common		V	V+	Common	Output

*The **GTC** pressure transducers offer a Glass Micro-Fused sensing element, MEMS technology, Long Term Stability, Stainless Steel Compact design.*

ELECTRICAL:

Output:	Supply:
4 - 20mA (2 wire)	12 -35 vdc (2wire)
0 - 5V	10 -35 vdc (3 wire)
0 - 10V	10 -35 vdc (3 wire)
1 - 5V	10 -35 vdc (3 wire)
0.5 - 4.5V (ratiometric)	5 vdc (3 wire)

ACCURACY:
Including Linearity, Hysteresis and Repeatability: ± 0.5% (Full Scan)

PROTECTION:
IP65 with DIN, M12X1, Packard Plug, Cable, Integral Deustch

OPERATING TEMPERATURE:
-40° to 257°F (-40° to 125°C)

COMPENSATION TEMP:
14° to 158°F (-10° to 70°C)

STORAGE TEMPERATURE:
-40° to 257°F (-40° to 125°C)

ZERO TEMP. COEFFICIENT:
±1.5% Full Scan max
14° to 158°F (-10° to 70°C)

SPAN TEMP. COEFFICIENT:
±1.5% Full Scan max
14° to 158°F (-10° to 70°C)

PRESSURE RANGE:
0 - 8700 PSI (0 - 600 Bar)

OVERLOAD PRESSURE:
3x Full Scan ≤ 10PSI, 2x Full Scan ≤ 6000PSI
1.3x Full Scan above 6000 psi

MATERIAL:
Body: 304 Stainless Steel
Sensing Element: Glass Micro-Fused

RESPONSE TIME:
<1 millisecond

MECHANICAL LIFE:
1 million cycles

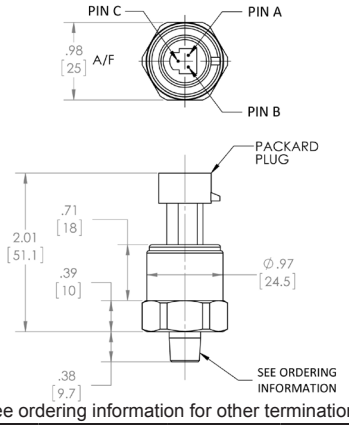
ORDERING INFORMATION

(For Applications with EAU of 2000 pieces, minimum release 500 pcs.)

GTC	*- A*	*- 0/3000*	*- 4M*	*- HCM*	*- *5*	*- 80 **
Model	**Type**	**Pressure Range**	**Port Size**	**Terminal**	**Options**	**Pin Out**
GTC	A: 4 - 20mA (2 wire) B: 0 - 5V (3 wire) C: 0 - 10V (3 wire) D: 0.5 - 4.5V (3 wire) E: 1 - 5V (3 wire)	Specify Pressure Range Required *Note: Ranges Available 0/70 PSI(0/5 Bar) 0/85 PSI (0/6 Bar), 0/150 PSI (0/10 Bar), 0/300 PSI (0/21 Bar), 0/600PSI (0/40 Bar), 0/1500 PSI(0/100 Bar), 0/3000PSI (0/200 Bar),0/6000 PSI (0/400 Bar)0/8700 PSI (0/600 Bar)* **Consult Factory for Other Ranges**	2M- 1/8" NPT 4M - 1/4 NPT 4S - 7/16 x 20 SAE Male 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) M12 - M12 X 1.5 M14 - M14 X 1.5 **Consult Factory for other sizes**	PP - Packard Plug C - Cable (standard 3 ft long) M - M12X1 HCM - DIN 43650C Mini DIN DI - Deutsch Integral	*Omit for 5- Spiral Restrictor	See Above Wire Data Information * For other Electrical Pin Out options refer to page 50

PVS Sensors Inc.®

VTC Pressure Transducer



Sensing Element: Ceramic Capacitive

(See ordering information for other termination options)

Wiring Data Information												
DIN Connector PIN Function (- 81)					**Cable Connector WIRE Function (- 85)**				**Deutsch 2 Pin Wiring (- 80)**			
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4	Signal Output	RED	BLACK	YELLOW	Signal Output	Pin 1	Pin 2	
mA	Supply V+	Output	N/A	N/A	mA	Supply V+	Output	N/A	mA	Supply V+	Output	
V	Supply V+	Common	Output	N/A	V	Supply V+	Common	Output	V	N/A	N/A	
M12 PIN Function (- 81)					**Packard Plug PIN/WIRE Function (- 81)**				**Deutsch 3 Pin Wiring (- 80)**			
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4	Signal Output	PIN A	PIN B	PIN C	Signal Output	Pin A	Pin B	Pin C
mA	Supply V+	Output	N/A	N/A	mA	Supply V+	Output	N/A	mA	N/A	N/A	N/A
V	Supply V+	Common	Output	N/A	V	Supply V+	Common	Output	V	V+	Output	Common

The VTC pressure transducer offers high quality, stainless steel, high stability, compact design for use in air compressors, air conditioning and refrigeration equipment, automotive and hydraulic controls.

ELECTRICAL:

OUTPUT:	SUPPLY:
4 - 20 mA	9 - 30 VDC (2 wire)
0-5V	9 - 30 VDC (3 wire)
1-5V	9 - 30 VDC (3 wire)
0-10V	12 - 30 VDC (3 wire)
0.5 - 4.5 V	5 VDC (3 wire)

ACCURACY:
1.0%

PROTECTION:
IP67 with DIN, Packard Plug, Cable, M12X1, Integral Deustch

OPERATING TEMPERATURE:
-40° to 257°F (-40° to 125°C)

COMPENSATION TEMPERATURE:
-4° to 158°F (-20° to 70°C)

RESPONSE TIME:
<1 millisecond

PRESSURE RANGE:
0/75(0/5 Bar) up to 0/2000 PSI (0 - 138 Bar)
(See ordering information below)

OVERLOAD PRESSURE:
1.5 X Full Scan

BURST PRESSURE:
3.0 X Full Scan

MATERIAL:
Wetted Area: Ceramic
Body: 304 Stainless Steel

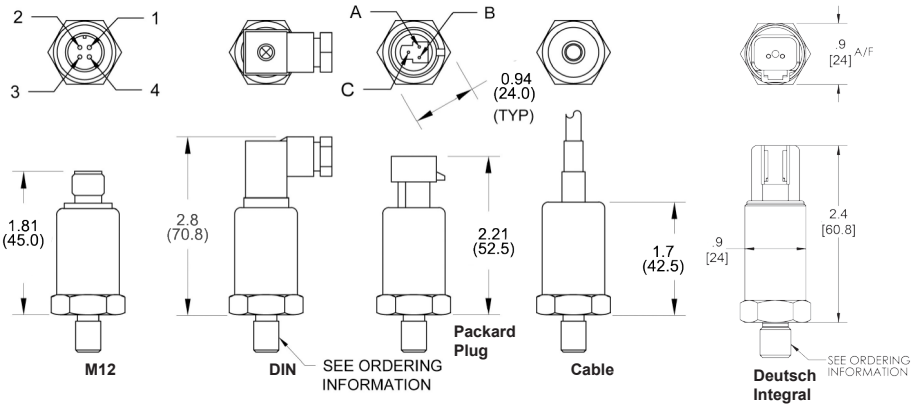
ORDERING INFORMATION

VTC	***- D***	***- 0/150***	***- 4M***	***- PP***	***- 81 ****
Model	**Type**	**Pressure Range**	**Connection**	**Terminal**	**Pin Out**
VTC	A: 4 - 20 mA (2 wire) B: 0 - 5V (3 wire) C: 0 - 10V (3 wire) D: 0.5 -4.5V (3 wire) E: 1-5V (3 wire)	Specify Pressure Range Required *0/75 PSI, 0/150 PSI* *0/200 PSI ,0/250 PSI* *0/300 PSI, 0/500 PSI* *0/750 PSI,0/1000 PSI* *0/1500 PSI,0/2000 PSI* **Consult Factory for Other Ranges** **Also available in Bar, Consult Factory**	2M - 1/8" NPT 4M - 1/4" NPT 4S - 7/16 X 20 SAE Male 6S - 9/16 X 18 SAE Male 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) **Consult Factory for Other Sizes**	PP - Packard Plug M - M12X1 C - 39" (1 Meter) Cable (Std) HCM - DIN 43650C Mini DIN DI - Deutsch Integral	* Standard Pin out as noted above For other Electrical Pin Out options refer to page 50

PVS Sensors Inc.®

XTC Pressure Transducer

Sensing Element: Ceramic



Wiring Data Information													
DIN Connector PIN Function (- 81)					**Cable Connector WIRE Function (- 80)**					**Deutsch 2 Pin Wiring (- 80)**			
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4	Signal Output	RED	BLUE	BLACK	YELLOW	Signal Output	Pin 1	Pin 2	
mA	Supply V+	Output	N/A	N/A	mA	Supply V+	Output	N/A	N/A	mA	Supply V+	Output	
V	Supply V+	Common	Output	N/A	V	Supply V+	Output	Common	N/A	V	N/A	N/A	
M12 PIN Function (- 82)					**Packard Plug PIN/WIRE Function (- 89)**					**Deutsch 3 Pin Wiring (- 81)**			
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4	Signal Output	A/BLACK	B/RED	C/GREEN		Signal Output	Pin A	Pin B	Pin C
mA	Supply V+	N/A	Output	N/A	mA	N/A	Supply V+	Output		mA	N/A	N/A	N/A
V	Supply V+	N/A	Output	Common	V	Common	Supply V+	Output		V	V+	Common	Output

*The **XTC** pressure transducers offer high quality, high stability, stainless steel compact design, ideal for the industrial environment. The transducers are widely used in air compressors, air conditioning and refrigeration equipment, automotive and hydraulic control.*

ELECTRICAL:

Output:	Supply:
4 - 20mA (2 wire)	10 - 30 vdc (2wire)*
0 - 5V,	8 - 30 vdc (3 wire)*
0 - 10V	12 - 30 vdc (3 wire)*
1 - 5V	8 - 30 vdc (3 wire)*
0.5 - 4.5V (ratiometric)	5 vdc(+/-0.25V) (3 wire)

(* Do not exceed 35VDC, with the exception of 0.5-4.5V)

ACCURACY:
± 0.5% (Full Scan)

PROTECTION:
IP65 with DIN
IP67 with Packard Plug, Cable M12X1, Integral Deustch

RESPONSE TIME:
<10 milliseconds

OPERATING TEMPERATURE:
-40° to 212°F (-40° to 100°C)

COMPENSATION TEMPERATURE:
14° to 176°F (-10° to 80°C)

STORAGE TEMPERATURE:
-58° to 257°F (-50° to 125°C)

INSULATION:
>100m Ω@50V

PRESSURE RANGE:
0- 3500 PSI (0 - 241 Bar)

OVERLOAD PRESSURE:
150% Full Scan

MATERIAL:
Wetted Area: Ceramic
Body: 304 Stainless Steel

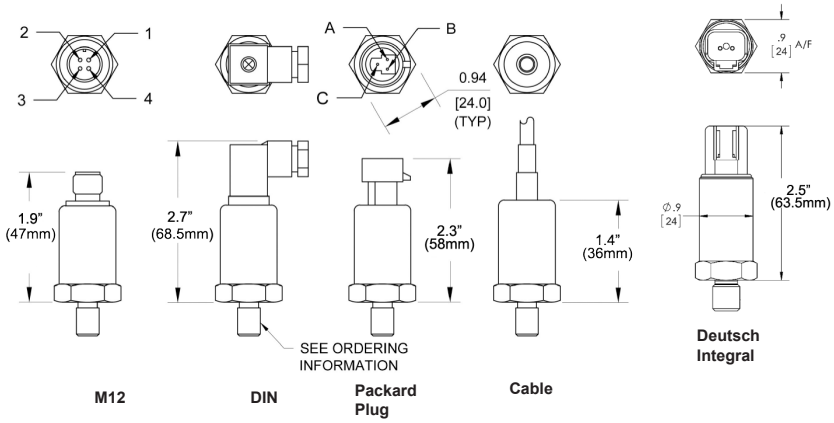
MEDIUM COMPATIBILITY:
Corrosive medium compatible with Cr18Ni9Ti,ceramics

ORDERING INFORMATION

XTC	***- A***	***- 0/3000***	***- 4M***	***- HCM***	***- 80 ****
Model	**Type**	**Pressure Range**	**Port Size**	**Terminal**	**Pin Out**
XTC	A: 4 - 20mA (2 wire) B: 0 - 5V (3 wire) C: 0 - 10V (3 wire) D: 0.5 - 4.5V (3 wire) E: 1 - 5V (3 wire)	Specify Pressure Range Required *Note: Standard Ranges 0/100 PSI, 0/300 PSI, 0/600 PSI, 0/1500 PSI, 0/3000 PSI, 0/3500 PSI,* **Consult Factory for Other Ranges**	4M - 1/4 NPT 4S - 7/16 X 20 SAE MALE 2G - 1/8 BSPP* 4G - 1/4 BSPP* (undercut for an o-ring seal) 4GS- 1/4 BSPP* (no undercut) *Non Standard	PP - Packard Plug M - M12X1 C - 39" (1 Meter) Cable (Std) HCM - DIN 43650C Mini DIN DI - Deutsch Integral	See Above Wire Data Information * For other Electrical Pin Out options refer to page 50

STC Pressure Transducer

PVS Sensors Inc.®



CE RoHS COMPLIANT

Sensing Element: Piezoresistive Silicon Chip

*The **STC** pressure transducers offer Piezoresistive silicon chip, MEMS technology, Long Term Stability, Stainless Steel Compact design, ideal for the industrial environment. The transducers are widely used in air compressors, air conditioning and refrigeration equipment, automotive and hydraulic control.*

ELECTRICAL:

Output:	Supply:
4 - 20mA (2 wire)	9 - 36 vdc (2wire)
0 - 5V,	9 - 36 vdc (3 wire)
0 - 10V	12 -30 vdc (3 wire)
1 - 5V	9 - 36 vdc (3 wire)
0.5 - 4.5V (ratiometric)	5 vdc (3 wire)

ACCURACY:
± 0.5% (Full Scan)

HYSTERESIS & REPEATABILITY:
± 0.1% (Full Scan)

PROTECTION:
IP65 with DIN, M12X1, Packard Plug, Cable, Integral Deustch

VIBRATION RESISTANCE:
Sine curve: 20g, 25Hz-2kHz; IEC 60068-2-6
Random: 7.5grms, 5Hz~1kHz; IEC 60068-2-64

SHOCK RESISTANCE:
Shock:: 200g/1ms; IEC 60068-2-27
Free Fall: 1m; IEC 60068-2-32

OPERATING TEMPERATURE:
-40° to 257°F (-40° to 125°C)

AMBIENT TEMPERATURE:
-4° to 185°F (-20° to 85°C)

STORAGE TEMPERATURE:
-40° to 257°F (-40° to 125°C)

ZERO TEMP. COEFFICIENT:
±1.5% Full Scan max
14° to 158°F (-10° to 70°C)

SPAN TEMP. COEFFICIENT:
±1.5% Full Scan max
14° to 158°F (-10° to 70°C)

EMC - INTERFERENCE:
IEC 61000-6-3

EMC - IMMUNITY
IEC 61000-6-2

PRESSURE RANGE:
-14.5 - 14500 PSI (-1 - 1000 Bar)
Consult factory for higher pressure.
Caution: Please specify if application has high pressure fluctuation,a pulse snubber should be added against cavitaion and liquid hammer

OVERLOAD PRESSURE:
3x Full Scan ≤ 10PSI, 1.5x Full Scan ≤ 6000PSI
1.2x Full Scan @ 8700 psi

MATERIAL:
Body: 304 Stainless Steel
Sensing Element: Piezoresistive Silicon Chip

RESPONSE TIME:
< 25 milliseconds

MECHANICAL LIFE:
1 million cycles

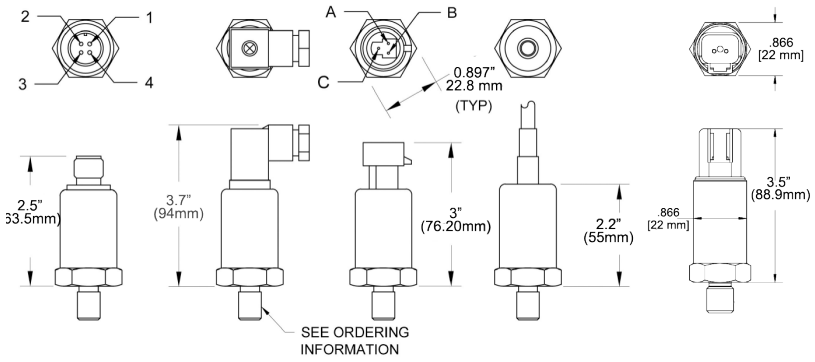
INSULATION RESISTANCE:
≥ 100MΩ/250VDC (200MΩ/500VDC)

ORDERING INFORMATION

STC	*- A*	*- 0/3000*	*- 4M*	*- HCM*	*- 81 **	*- 5**
Model	**Type**	**Pressure Range**	**Port Size**	**Terminal**	**Pin Out**	**Option**
STC	A: 4 - 20mA (2 wire) B: 0 - 5V (3 wire) C: 0 - 10V (3 wire) D: 0.5 - 4.5V (3 wire) E: 1 - 5V (3 wire)	Specify Pressure Range Required *Note: Ranges Available* *-14.5/0 PSI (-1/0 BAR), 0/1.5 PSI(0.11 Bar), 0/6 PSI (0/0.4 Bar), 0/14.5 PSI (0/1 Bar), 0/100 PSI (0/7Bar), 0/600 PSI, (0/40 Bar), 0/1500 PSI (0/100 Bar), 0/3000 PSI, (0/200 Bar),0/ 6000 PSI (0/400 Bar), 0/ 8700 PSI (0/600 Bar) 0/ 14,500 PSI (0/1000 Bar)* **Consult Factory for Other Ranges**	2M- 1/8" NPT 4M - 1/4 NPT 4S - 7/16 x 20 SAE Male 4G - 1/4 BSPP (undercut for o-ring seal) 6S - 9/16 X 18 SAE Male **Consult Factory for other sizes**	PP - Packard Plug C - Cable (standard 3 ft long) M - M12X1 HCM - DIN 43650C Mini DIN DI - Deutsch Integral	Refer to Electrical Pin Out Page 50	*Omit if Standard 5 - Spiral Restrictor

PVS Sensors Inc.®

JTC Pressure Transducer



Sensing Element: Silicon Strain Gauge

Wiring Data Information													
DIN Connector PIN Function (- 80)					**Cable Connector WIRE Function**					**Deutsch 2 Pin Wiring (- 80)**			
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4	Signal Output	RED	BLUE	BLACK	WHITE	Signal Output	Pin 1	Pin 2	
mA	Supply V+	Output	N/A	N/A	mA **(-82)**	Supply V+	N/A	Output	N/A	mA	Supply V+	Output	
V	Supply V+	Output	Common	N/A	V **(-85)**	Supply V+	N/A	Common	Output	V	N/A	N/A	
M12 PIN Function (- 87)					**Packard Plug PIN/WIRE Function (- 89)**					**Deutsch 3 Pin Wiring (- 81)**			
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4	Signal Output	A/BLACK	B/RED	C/GREEN		Signal Output	Pin A	Pin B	Pin C
mA	Supply V+	N/A	N/A	Output	mA	N/A	Supply V+	Output		mA	N/A	N/A	N/A
V	Supply V+	N/A	Common	Output	V	Common	Supply V+	Output		V	V+	Common	Output

The JTC pressure transducers offer high quality, high stability, stainless steel compact design, ideal for the industrial environment. JTC series uses MEMS technologies, compensated with digital ASIC and designed with EMI/RFI circuit built in. The transducers are widely used in air compressors, air conditioning and refrigeration equipment, automotive and hydraulic control.

ELECTRICAL:

Output:	Supply:
4 - 20mA (2 wire)	10 -30 vdc (2wire)
0 - 5V,	10 -30 vdc (3 wire)
0 - 10V	10 -30 vdc (3 wire)
1 - 5V	10 -30 vdc (3 wire)
0.5 - 4.5V (ratiometric)	5 vdc (3 wire)

ACCURACY:
± 0.5% (Full Scan)

RESPONSE TIME:
< 10 milliseconds

ZERO OFFSET
≤ +/-1% FS

PROTECTION:
IP65 with DIN, Packard Plug, Cable M12X1, Integral Deustch

OPERATING TEMPERATURE:
-40° to 257°F (-40° to 125°C)

COMPENSATION TEMPERATURE:
32° to 158°F (0° to 70°C)

STORAGE TEMPERATURE:
-58° to 257°F (-50° to 125°C)

SPAN OFFSET:
≤ +/-1% FS

PRESSURE RANGE:
0 to 10,000 PSI (0 to 690 Bar)

OVERLOAD PRESSURE:
2x Full Scan

MATERIAL:
Wetted Area: Silicon Gauge
Body: 304 Stainless Steel

BURST PRESSURE:
5X of Full Scale (Maximum:21,760 psi)

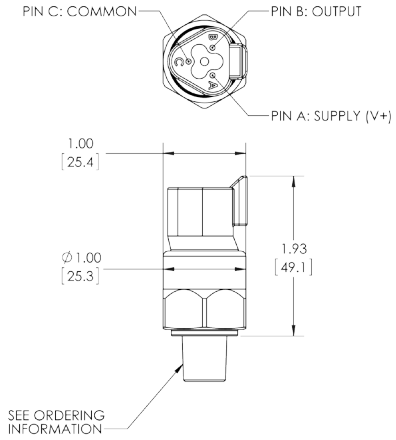
ORDERING INFORMATION

JTC	*- A*	*- 0/3000*	*- 4M*	*- HCM*	*- 80 **
Model	**Type**	**Pressure Range**	**Port Size**	**Terminal**	**Pin Out**
JTC	A: 4 - 20 mA (2 wire) B: 0 - 5V (3 wire) C: 0 - 10V (3 wire) D: 0.5 - 4.5 (3 wire) ratiometric E: 1 - 5V (3 wire)	Specify Pressure Range Required *Note: Standard Ranges 0/100 PSI, 0/300 PSI, 0/600 PSI, 0/1500 PSI, 0/3000 PSI, 0/5000 PSI, 0/6000 PSI, 0/9000 PSI* **Consult Factory for Other Ranges**	4M - 1/4 NPT 4S - 7/16 X 20 SAE MALE 2G - 1/8 BSPP* 4G - 1/4 BSPP* (undercut for an o-ring seal) 4GS- 1/4 BSPP* (no undercut) *Non Standard	PP - Packard Plug M - M12X1 C - 39" (1 Meter) Cable (Std) HCM - DIN 43650C Mini DIN HC - DIN43650A Large DIN Cable Clamp HN - DIN43650A Large DIN 1/2" Conduit (female) DI - Deutsch Integral	See Above Wire Data Information * For other Electrical Pin Out options refer to page 50

PTC Pressure Transducer

Sensors Inc.®

Deutsch Integral Shown
See Ordering information below
for other terminations



Sensing Element: Ceramic Capacitive

CE RoHS COMPLIANT

The PTC pressure transducer offers high quality, brass, high stability, compact design for use in air compressors, air conditioning and refrigeration equipment, automotive and hydraulic controls.

ELECTRICAL:
OUTPUT: SUPPLY:
0.5 - 4.5 V 5 VDC (3 wire)

ACCURACY:
± 1% (Full Scan)

PROTECTION:
IP67 with DIN
IP69 M12X1, Integral Deustch, Packard Plug

INTERNAL O-RING MATERIAL:
- Buna-N (Standard)
(optional: EPDM, VITON®, Low Temp Nitrile)

OPERATING TEMPERATURE:
-40° to 275°F (-40° to 135°C)

COMPENSATION TEMPERATURE:
-4° to 158°F (-20° to 70°C)

RESPONSE TIME:
<1 millisecond

MATERIAL:
Wetted Area: Brass, Ceramic Buna-N
Body: Brass

PRESSURE RANGE:
0 - 750 PSI (0 - 52 Bar)
Gauge Pressure
(See ordering information below)

OVERLOAD PRESSURE:
1.5 X Full Scan

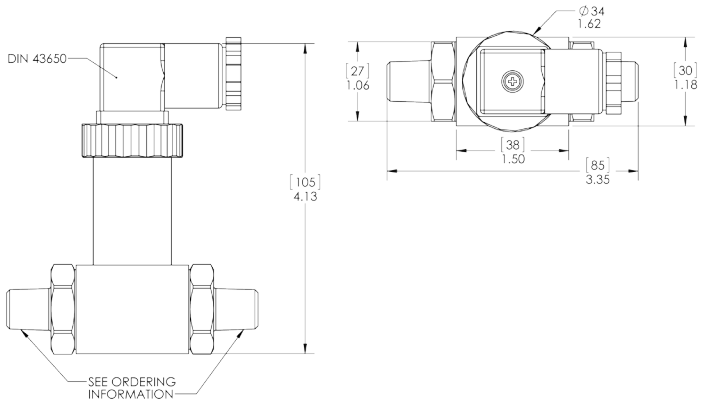
BURST PRESSURE:
3.0 X Full Scan

ORDERING INFORMATION

PTC	*- D*	*- 0/150*	*- 4M*	*- PP*	*- 1**	*- 80 **
Model	**Type**	**Pressure Range**	**Connection**	**Terminal**	**Options**	**Pin Out**
PTC	D: 0.5 -4.5V (3 wire)	Specify Pressure Range Required *0/30 PSI, 0/50 PSI* *0/75 PSI, 0/100 PSI* *0/150 PSI ,0/200 PSI* *0/250 PSI, 0/300 PSI* *0/500 PSI, 0/750 PSI* **Consult Factory for Other Ranges** **Also available in Bar, Consult Factory**	2M - 1/8" NPT 4M - 1/4" NPT 4S - 7/16 X 20 SAE Male 6S - 9/16 X 18 SAE Male 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) **Consult Factory for Other Sizes**	PP - Packard Plug M - M12X1 FL - 18" Flying Leads H - DIN 43650A Male Half Only HC - DIN 43650A Cable Clamp HN - DIN 43650A 1/2 Conduit (female) HCC - XXX (Specify Length in Inches) DI - Deutsch Integral	** - Omit If Standard 1 - VITON® o-ring 2 - EPDM o-ring 15 - Low Temp Nitrile o-ring	* For Electrical Pin Out options refer to page 50

PVS Sensors Inc.®

DPT Differential
Pressure Transducer



Wiring Data Information				
DIN Connector PIN Function (- 81)				
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4
mA	Supply V+	Output	N/A	N/A
V	Supply V+	Common	Output	N/A

CE **Sensing Element: Piezoresistive Silicon Chip**

*The **DPT DIFFERENTIAL** pressure transducers offer Piezoresistive silicon chip, MEMS technology, Long Term Stability, Stainless Steel design, ideal for the industrial environment.*

ELECTRICAL:

Output:	Supply:
4 - 20mA (2 wire)	12 -35 vdc (2wire)
0 - 5V,	12 -35 vdc (3 wire)
1 - 5V	12 -35 vdc (3 wire)
0.5 - 4.5V (ratiometric)	5 vdc (3 wire)

ACCURACY:
Including Linearity, Hysteresis and Repeatability: ± 0.5% (Full Scan)

PROTECTION:
IP65 with DIN

RESPONSE TIME:
1 millisecond

WEIGHT:
1.04 LBS (0.47KG)

OPERATING TEMPERATURE:
-4° to 185°F (-20° to 85°C)

COMPENSATION TEMP:
32° to 140°F (0° to 60°C)

STORAGE TEMPERATURE:
-40° to 257°F (-40° to 125°C)

ZERO TEMP. COEFFICIENT:
±1.5% Full Scan max
-4° to 185°F (-20° to 85°C)

SPAN TEMP. COEFFICIENT:
±1.5% Full Scan max
-4° to 185°F (-20° to 85°C)

PRESSURE RANGE:

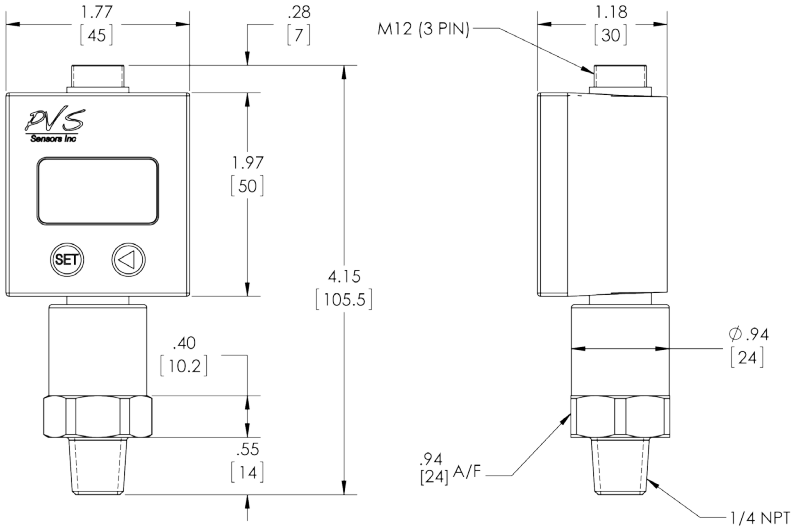
Range:	Positive Overpressure	Negative Overpressure
5 psi (0.4 Bar)	10 psi (0.7 Bar)	5 psi (0.4Bar)
10 psi (0.7 Bar)	22 psi (1.5 Bar)	10 psi (0.7 Bar)
14.5 psi (1 Bar)	29 psi (2 Bar)	14.5 psi (1 Bar)
36 psi (2.5 bar)	73 psi (5 Bar)	36 psi (2.5 Bar)
58 psi (4 Bar)	116 psi (8 Bar)	58 psi (4 Bar)
87 psi (6 Bar)	174 psi (12 Bar)	87 psi (6 Bar)
145 psi (10 Bar)	290 psi (20 Bar)	145 psi (10 Bar)
232 psi (16 Bar)	464 psi (32 Bar)	145 psi (10 Bar)
365 psi (25 Bar)	725 psi (50 Bar)	145 psi (10 Bar)

MATERIAL:
Body: 304 Stainless Steel
Sensing Element: Piezoresistive Silicon Chip

ORDERING INFORMATION

DPT	*- A*	*- 10*	*- 4M*	*- HC*	*- 80*
Model	**Type**	**Pressure Range**	**Port Size**	**Terminal**	**Pin Out**
DPT	A: 4 - 20 mA (2 wire) B: 0 - 5V (3 wire) D: 0.5 - 4.5 (3 wire) E: 1 - 5V (3 wire)	Specify Pressure Range Required (5 psi, 10 psi, 14.5 psi, 36 psi 58 psi, 87 psi,145 psi, 232 psi 363 psi)	2M- 1/8" NPT 4M - 1/4 NPT 4S - 7/16 X 20 SAE Male 4G - 1/4 BSPP* (undercut for an o-ring seal) 4GS- 1/4 BSPP* (no undercut) M12 - M12 X 1.5* M14 - M14 X 1.5* *Non Standard **Consult Factory for other sizes**	HC - DIN 43650A DIN Cable Clamp	Standard Pin out as per above wire data Information

TDD Transducer
Digital Display



Wiring Data Information								
M12 3 PIN (- 80)				DIN Electrical Connections PIN Function (- 80)				
Signal	Pin 1 (Red Wire)	Pin 2 (Green Wire)	Pin 3	Signal	Pin 1	Pin 2	Pin 3	Pin 4
mA	V+	Output	N/A	mA	Supply V+	Output	N/A	N/A

*The **TDD** series transducer with a digital display readout and a 4-20 mA output. It features high accuracy, long term stability,compact and rugged design to measure gas and liquid pressure in a wide range of applications.The high resolution LCD indicator can display the real time pressure value which provides readable information for field engineers. The display buttons on the indicator also provide adjustment to zero and span calibration, unit change.*

ELECTRICAL:
Output: 4 - 20mA (2 wire)
Supplied with standard 79" (2m) connector cable
Power Supply: 18 - 30 VDC

ACCURACY:
± 0.5% (Full Scan)

INDICATOR:
4 digits (-9999 to 9999 adjustable)
Unit: KPa, MPa, Bar, PSI, %, atm, m

PROTECTION:
IP65 - M12 Cable, DIN

OPERATING TEMPERATURE:
-40° to 275°F (-40° to 135°C)

WORKING TEMPERATURE:
14° to 140°F (-10° to 60°C)

STORAGE TEMPERATURE:
-4° to 176°F (-20° to 80°C)

PRESSURE RANGE:
0 - 3500 PSI (0 - 241 Bar)

OVERLOAD PRESSURE:
1.5 times of pressure range

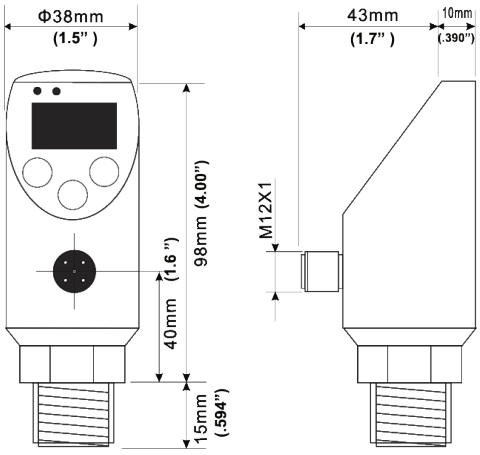
MATERIAL:
Wetted Area: Ceramic Sensing
Body: Welded Stainless Steel

ORDERING INFORMATION

TDD	***- A***	***- 0/100***	***- 4M***	***- M***	***- 80***
Model	**Type**	**Pressure Range**	**Port Size**	**Terminal**	**Pin Out**
TDD	A: 4 - 20 mA (2 wire)	Specify Pressure Range Required *Note: Standard Ranges 0/100 PSI, 0/300 PSI, 0/600 PSI, 0/1500 PSI, 0/3000 PSI, 0/3500 PSI,* **Consult Factory for Other Ranges**	4M - 1/4 NPT 4S - 7/16 X 20 SAE MALE 4G - 1/4 BSPP*(undercut for an o-ring seal) 4GS- 1/4 BSPP* (no undercut) 8M - 1/2 NPT *Non Standard	M - M12 (with 79" mating cable) HCM - DIN43650C Mini Din	Standard Pin out as per above wire data Information

PVS Sensors Inc.®

SPS Pressure
Switch/Transducer



Wiring Data Information					
M12 x 1, 5 PINS					
Signal	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5
mA	V+	SP1(Switch 1)	GND	SP2(Switch 2)	Output

*The **SPS** series is a Electronic Pressure Switch, Transducer and Digital Display in one device. The SPS is designed for general industrial applications such as hydraulic and pneumatic systems, pressure monitoring and control, pumps and compressors.*

- **PNP Switching, voltage and current outputs**
- **Switching Set points are adjustable**
- **Displays peak pressure value and environmental temperature**
- **Housing with display and electrical connection rotates 330 degrees**

ELECTRICAL:
Output: 4 - 20mA
0 - 20mA
0 - 5 V
0 - 10V
Power Supply: 12 - 30 VDC

ACCURACY:
± 0.5% (Full Scan)

INDICATOR:
3 Display buttons (back lighted)
Unit: PSI, Bar, mBar, Pa, kPa, MPa

PROTECTION:
IP65 - M12 Cable

MEDIA TEMPERATURE:
-22° to 176°F (-30° to 80°C)

WORKING TEMPERATURE:
-22° to 176°F (-30° to 80°C)

STORAGE TEMPERATURE:
-40° to 176°F (-40° to 80°C)

PRESSURE RANGE:
-14.5 - 8700 PSI (-1.0 - 600 Bar)

OVERLOAD PRESSURE:
1.5 times of pressure range

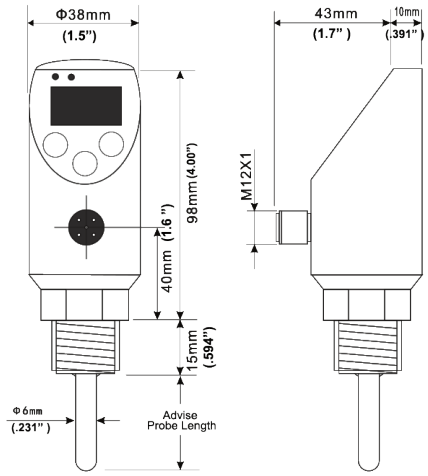
MATERIAL:
Wetted Area: Stainless steel
Body: 316 Stainless Steel

ORDERING INFORMATION

SPS	***- A***	***- 0/100***	***- 4M***	***- M5***
Model	**Type**	**Pressure Range**	**Port Size**	**Terminal**
SPS	A: 4 - 20 mA A1: 0 - 20 mA B: 0 - 5 V C: 0 - 10V	Specify Pressure Range Required **Consult Factory for Other Ranges**	4M - 1/4 NPT 4S - 7/16 x 20 SAE Male 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) M12 - M12 X 1.5 M14 - M14 X 1.5 **Consult Factory for other sizes**	M5 - M12 X 1

PVS Sensors Inc.®

STS Temperature
Switch/Transducer



Wiring Data Information					
M12 x 1, 5 PINS					
Signal	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5
mA	V+	SP1(Switch 1)	GND	SP2(Switch 2)	Output

*The **STS** series is a Electronic Temperature Switch, Transducer and Digital Display in one device. The STS is designed for temperature monitoring,measurement and control such as used in hydraulic oil, lubricants,heat-carrying agents etc.*

- **PNP Switching, voltage and current outputs**
- **Switching Set points are adjustable**
- **Displays peak pressure value and environmental temperature**
- **Housing with display and electrical connection rotates 330 degrees**

ELECTRICAL:
Output: 4 - 20mA
0 - 20mA
0 - 5 V
0 - 10V
Power Supply: 12 - 30 VDC

ACCURACY:
± 0.5% (Full Scan)

INDICATOR:
3 Display buttons (back lighted)
Unit: °F(Fahrenheit),°C (Celsius), K(Kelvin)

PROTECTION:
IP65 - M12 Cable

MEDIA TEMPERATURE:
-22° to 176°F (-30° to 80°C)

WORKING TEMPERATURE:
-22° to 176°F (-30° to 80°C)

STORAGE TEMPERATURE:
-40° to 176°F (-40° to 80°C)

TEMPERATURE RANGE:
-58° to 500°F (-50° to 260°C)

MATERIAL:
Wetted Area: Stainless Steel
Body: 316 Welded Stainless Steel

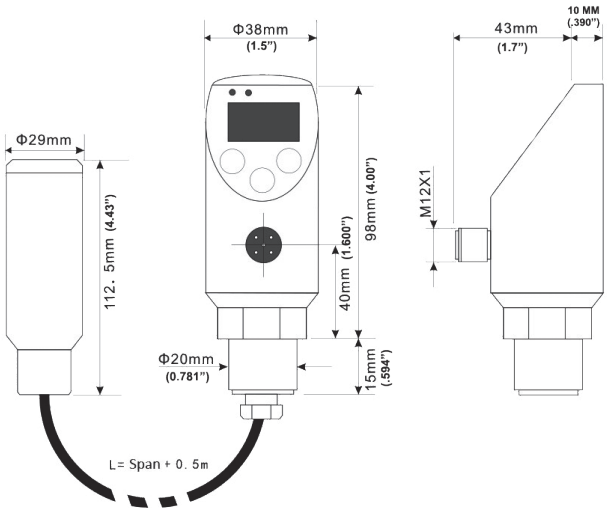
TEMPERATURE RESPONSE TIME:
< 5 seconds

ORDERING INFORMATION

STS	***- A***	***- 0/100F***	***- 4M***	***- M5***	***- A***
Model	**Type**	**Temperature Range**	**Port Size**	**Terminal**	**Probe Length**
STS	A: 4 - 20 mA A1: 0 - 20 mA B: 0 - 5 V C: 0 - 10V	Specify Temperature Range Required **Consult Factory for Other Ranges**	4M - 1/4 NPT 4S - 7/16 x 20 SAE Male 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) M12 - M12 X 1.5 M14 - M14 X 1.5 **Consult Factory for other sizes**	M5 - M12 X 1	A - 4” B - 6” C - 10”

PVS Sensors Inc.®

SLS Level
Switch/Transducer



Wiring Data Information					
M12 x 1, 5 PINS					
Signal	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5
mA	V+	SP1(Switch 1)	GND	SP2(Switch 2)	Output

*The **SLS** series is a Electronic Level, Transducer and Digital Display readout in one device. The SLS is designed for level monitoring and measurement of liquid and oil media for use in general industries such as tank, case, liquid cell and deep well.*

- **PNP Switching, voltage and current outputs**
- **Switching Set points are adjustable**
- **Displays peak pressure value and environmental temperature**
- **Housing with display and electrical connection rotates 330 degrees**

ELECTRICAL:
Output: 4 - 20mA
0 - 20mA
0 - 5 V
0 - 10V
Power Supply: 12 - 30 VDC

ACCURACY:
± 0.5% (Full Scan)

INDICATOR:
3 Display buttons (back lighted)
Unit: PSI, Bar, mBar, Pa, kPa, MPa

PROTECTION:
IP65 - M12 Cable

MEDIA TEMPERATURE:
-22° to 176°F (-30° to 80°C)

WORKING TEMPERATURE:
-22° to 176°F (-30° to 80°C)

STORAGE TEMPERATURE:
-40° to 176°F (-40° to 80°C)

PRESSURE RANGE:
1.4 - 142 psi (3 in HG - 300 in HG)

OVERLOAD PRESSURE:
1.5 times of pressure range

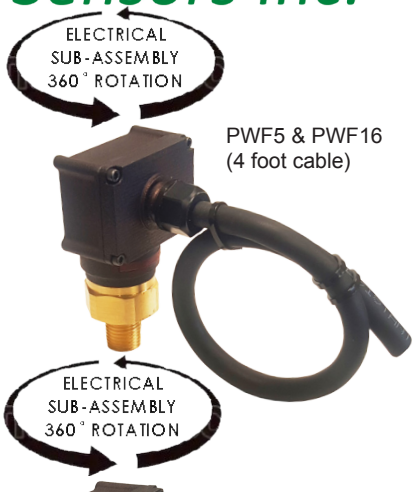
MATERIAL:
Wetted Area: Sainless Steel
Body: 316 Stainless Steel

ORDERING INFORMATION

SLS	***- A***	***- 0/100***	***- 4M***	***- M5***
Model	**Type**	**Pressure Range**	**Port Size**	**Terminal**
SLS	A: 4 - 20 mA A1: 0 - 20 mA B: 0 - 5 V C: 0 - 10V	Specify Pressure Range Required **Consult Factory for Other Ranges**	4M - 1/4 NPT 4S - 7/16 x 20 SAE Male 4G - 1/4 BSPP (undercut for an o-ring seal) 4GS- 1/4 BSPP (no undercut) M12 - M12 X 1.5 M14 - M14 X 1.5 **Consult Factory for other sizes**	M5 - M12 X 1

PWF5 & PWF16
Pressure Washer Switch
"No Leak" High Pressure Diaphragm

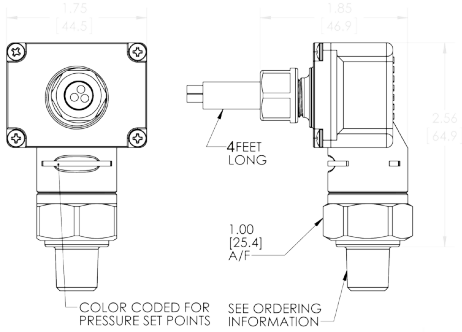
Sensors Inc.®



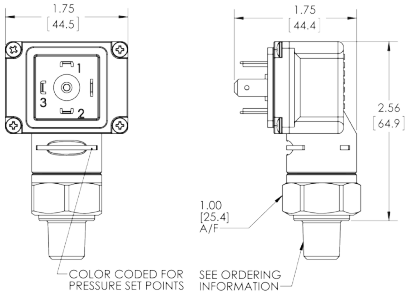
PWF5 & PWF16
(4 foot cable)

PWF5 & PWF16
(DIN male half)
(Not Pictured is PWF5 with M12 termination)

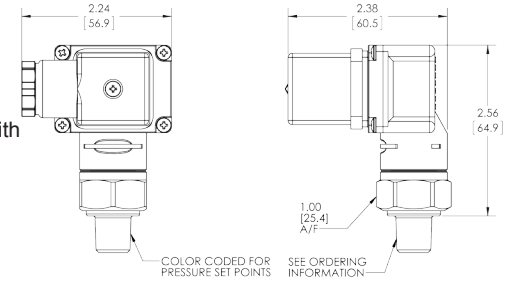
SELF CONTAINED "NO LEAK" HIGH PRESSURE VESSEL



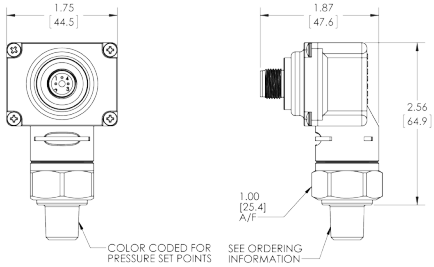
C - Cable 4 ft



H - DIN Male Half Only



HC- DIN Cable Clamp



M12 - M12 X 1 (5 amp series only)

CE RoHS COMPLIANT

MADE IN THE USA

ELECTRICAL:
PWF16 :Standard: 16A, 125/250VAC
- U.L. Recognize
PWF5 : Standard: 5A, 125/250VAC
- U.L. Recognized

WETTED MATERIAL:
Diaphragm: Buna-N (Standard)
(optional EPDM, VITON®)
Brass housing
Housing: Brass (standard)
(optional: 316 Stainless Steel)

PROTECTION:
DIN Male half only - IP00
HC & HCC (Din with cable): IP65
Cable & M12 - IP69

SWITCH TYPE:
Snap Action - Standard SPDT Single Pole Double Throw (Consult Factory for Normally Open or Normally Closed options)

ELECTRICAL LIFE:
50, 000 Electical Cycles at 250V and 185°F (85°C)

MEDIA TEMPERATURE RANGE:
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)

MAXIMUM OVERPRESSURE:
9.000 PSI (620 Bar) - Static
6000 PSI (414 Bar) - Dynamic

WEIGHT:
Approx. 0.2 lbs (0.09 kg)

ORDERING INFORMATION

PWF16	*- 220*	*- 4M*	*- C*	*- C*	*- 1**
Model	**Set Point**	**Port Size**	**Circuit**	**Terminal**	**Options**
PWF5 - 5 amp PWF16 - 16 amp Factory Set Only	Specify Set Point Required (set at rising pressure) 150 PSI (10 Bar)(Yellow) 220 PSI (15 Bar)(Blue) 360 PSI (25 Bar)(Red) 580 PSI (40 Bar)(Black) Consult Factory for other set points	4M - 1/4 NPT 6M - 3/8 NPT 4G - 1/4 BSPP 6G - 3/8" BSPP 2M - 1/8" NPT (PWF5 ONLY) 2G - 1/8"BSPP (PWF5 ONLY) Consult Factory for other sizes	C - SPDT (Standard) Consult Factory for Normally Open or Normally Closed circuit options	H - DIN 43650A Male Half Only HC - DIN43650A Cable Clamp HCC-XXX- DIN43650A with cable (specifiy length in inches) C - Cable 4 ft - standard M12 - M12X1 (5 amp series only) Consult Factory for other Terminations	** - Omit If Standard 1 - VITON® Diaphragm 2 - EPDM Diaphragm 4 - 316 SS Housing 6'C - 6ft M12 Mating Cable (5 amp series only)

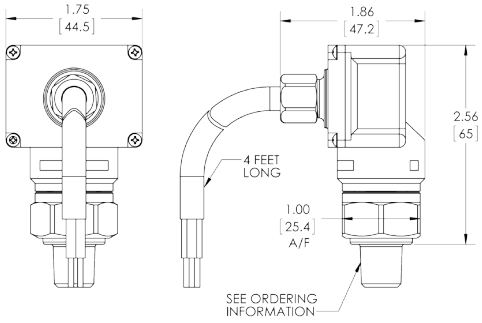
VWF16
Vacuum Washer Switch

"No Leak" High Pressure Diaphragm

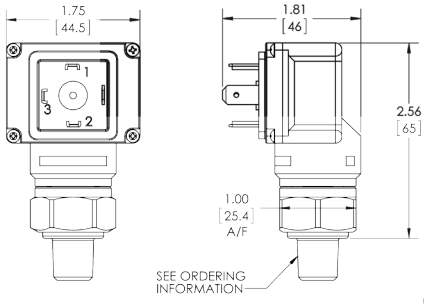
Sensors Inc.®

ELECTRICAL SUB-ASSEMBLY 360° ROTATION

PWF5 & PWF16
(4 foot cable)



C - Cable 4 ft

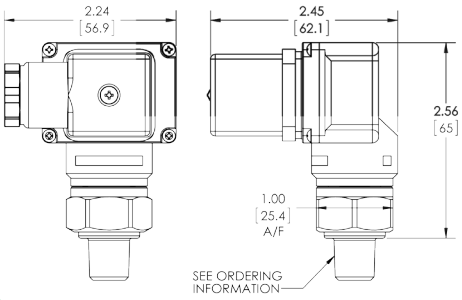


H - DIN Male Half Only

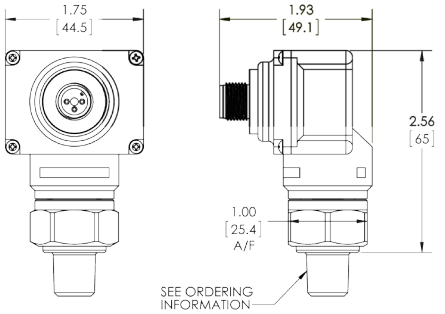
ELECTRICAL SUB-ASSEMBLY 360° ROTATION

PWF5 & PWF16
(DIN male half)
(Not Pictured is PWF5 with M12 termination)

SELF CONTAINED "NO LEAK" HIGH PRESSURE VESSEL



HC- DIN Cable Clamp



M12 - M12 X 1 (5 amp series only)

CE RoHS COMPLIANT

MADE IN THE USA

ELECTRICAL:
PWF16 :Standard: 16A, 125/250VAC
- U.L. Recognize
PWF5 : Standard: 5A, 125/250VAC
- U.L. Recognized

WETTED MATERIAL:
Diaphragm: Buna-N (Standard)
(optional EPDM, VITON®)
Brass housing
Housing: Brass (standard)
(optional: 316 Stainless Steel)

PROTECTION:
DIN Male half only - IP00
HC & HCC (Din with cable): IP65
Cable & M12 - IP69

SWITCH TYPE:
Snap Action - Standard SPDT Single Pole Double Throw (Consult Factory for Normally Open or Normally Closed options)

ELECTRICAL LIFE:
50, 000 Electical Cycles at 250V and 185°F (85°C)

TEMPERATURE RANGE:
Buna – N: -15° to +230°F (-26° to 110°C)
EPDM: -10° to +250°F (-23° to 121°C)
VITON®: 0° to +302°F (-18° to 150°C)
(® Registered Trademark of DuPont)

MAXIMUM OVERPRESSURE:
9.000 PSI (620 Bar) - Static
6000 PSI (414 Bar) - Dynamic

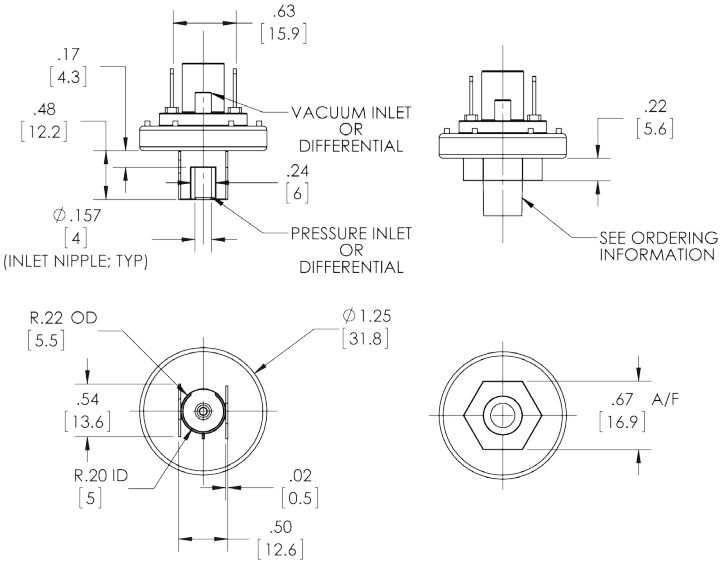
WEIGHT:
Approx. 0.2 lbs (0.09 kg)

ORDERING INFORMATION

VWF16	*- 1.5*	*- 4M*	*- C*	*- C*	*- 1**
Model	**Set Point**	**Port Size**	**Circuit**	**Terminal**	**Options**
VWF16 - 16 amp Factory Set Only	Specify Set Point Required (set at rising pressure) 1.5 in HG (51 Millibar) 2.5 in HG (85 Millibar) 4.5 in HG (152 Millibar) Consult Factory for other set points	4F - 1/4 NPT Female Consult Factory for other sizes	C - SPDT (Standard) Consult Factory for Normally Open or Normally Closed circuit options	H - DIN 43650A Male Half Only HC - DIN43650A Cable Clamp HCC-XXX- DIN43650A with cable (specifiy length in inches) C - Cable 4 ft - standard M12 - M12X1 (5 amp series only) Consult Factory for other Terminations	** - Omit If Standard 1 - VITON® Diaphragm 2 - EPDM Diaphragm 4 - 316 SS Housing 6'C - 6ft M12 Mating Cable (5 amp series only)

DPA / DVA / DDA

Multi Function Pressure / Vacuum / Differential Switch



*Model **DPA** series is a multi function PRESSURE, VACUUM and DIFFERENTIAL switch designed specifically for low pressure applications. The switch design affords a stable set point with a very low differential and is rated at both DC and AC applications. The switch can function as a Pressure, Vacuum, or Differential switch when used with non hazardous gases but only as a Pressure Switch when used with Oil or Water. The **DPA** compact switch extends the product range now available from PVS Sensors, Inc.*

ELECTRICAL:
0.5A - 250VAC 1A - 125VAC
1A - 120 VAC 4A - 24 VDC
8A - 12 VDC 15A - 6 VDC
Gold Contacts are available for low DC voltage/low amperage applications

ADJUSTABLE PRESSURE RANGE:
DPA /DPF Pressure: 0.22 to 36 psi (15 to 2500 mBar) (See ordering information for Set Point Ranges)
DVA/DVF Vacuum : 0.5 to 25 in HG (17 to 825 mBar)
DDA/DDF Differential: Adjustable within the above specified ranges

MEDIA:
Non-Hazardous Gas, Water or Oil (Pressure Switch ONLY for Water and Oil applications)

WETTED MATERIAL:
Housing: Glass Filled Nylon
Diaphragm: Molded Silicone

SWITCH TYPE:
Creep Action

MECHANICAL LIFE:
100,000 cycles

PROTECTION:
IP00

TEMPERATURE RANGE:
-22° to +180°F (-30° to +82°C) Ambient

MAX OPERATING PRESSURE:
45 PSI (3000 mBar)

WEIGHT:
.05 lbs (0.023 kg)

ORDERING INFORMATION

Minimum Order Required - Consult Factory

DPA	***- 1 ****	***- R ****	***- 3***	***- A***	***- A***	***- ****
Model	**Set Point**	**Direction**	**Port Size**	**Circuit**	**Termination**	**Options**
DPA DVA DDA Field Adjustable DPF DVF DDF Factory Set	Pressure: 1 - 0.22 to 1.2 psi (15 - 80 mbar) 2 - 1.2 to 3 psi (80 - 200mbar) 3 - 2 to 7 psi (150 - 500mbar) 4 - 6 to 12 psi (400 - 800mbar) 5 - 10 to 17 psi (700- 1200mbar) 6 - 14.5 to 36 psi(1000- 2500mbar) Vacuum : 0.5 to 25 in HG (17 to 825 mBar) (Call Factory for ranges) Differential: Adjustable within the above specified ranges *Specify Set point for DPF, DVF & DDF	R - Rising F - Falling * Omit for Models DPA, DVA & DDA	1 - G1/8 Male (P) 2 - M10 X 1 Male (P) 3 - 4mm OD tube(P/V) 4 - 1/8" NPT Male(P)	A - Normally Open B - Normally Closed	A - 4.8mm Spade Terminals B - 6.3mm Spade Terminals	* Omit if Standard 7 - Gold Contacts

PVS Sensors Inc.®

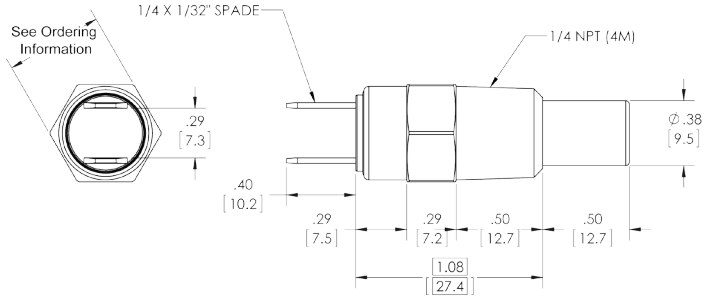
BT Temperature Switch

Bi-Metal

Direct Action - Gold Diffused Fine Silver Contacts

Brass

Stainless Steel



*The **BT** series is a Bi-Metal temperature switch with a factory set point. The switch is used for protection of all types of internal combustion engines, pumps, compressors, gear boxes, hydraulic reservoirs, marine and industrial power plants and fire suppression systems*

ELECTRICAL:
3 Amp @ 240VAC
2 Amp @ 24VDC (Resistive)

CIRCUIT:
SPST - NO
SPST - NC

HOUSING MATERIAL:
Brass
Optional Stainless Steel

PROTECTION:
IP00 - Exposed Terminals
IP69 - Flying Lead

SETTING TOLERANCE:
± 5°F (±2.8°C)

MAX PROBE PRESSURE:
5000 PSI (345 Bar)

PROBE LENGTH:
See Ordering Information

TEMPERATURE RANGE:
40° - 300°F (4° - 150°C)

MAX WORKING TEMP:
325°F (163°C)

TEMP DIFFERENTIAL:
6.5°F (3°C) (Approximate)

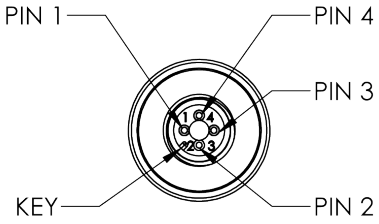
WEIGHT:
0.10 lbs (0.05kg)

ORDERING INFORMATION

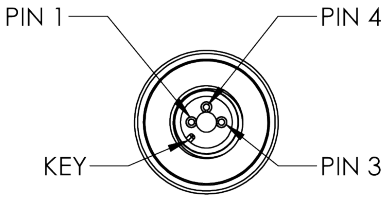
BT	***- 100F***	***- R***	***- 4M***	***- A***	***- SP***	***- A***	***- 4****
Model	**Temperature Set Point**	**Direction**	**Port Size**	**Circuit**	**Terminal**	**Probe Length**	**Options**
BT	Specify Set Point Required F or C 40° to 300°F (5° to 150°C)	R - Temperature Rising F - Temperature Falling	4M - 1/4" NPT (Hex: 9/16") 6M - 3/8" NPT (Hex: 11/16")	A - SPST NO B - SPST NC	SP - 1/4" x 1/32" Spade TS - 6-32 Terminal Screws FL - Flying Leads 18" FLL - Advise additional length of leads if required FLWTF - Weatherpack Tower Female FLWTM - Weatherpack Tower Male FLWSF - Weatherpack Shroud Female FLWSM - Weatherpack Shroud Male FLDR - Flying Leads 18" with 2 pin deutsch receptacle C - Cable (advise length required)	A - 1/2" B - 1" C - 2"	** Omit for Standard* 4 - Stainless Steel IG - Internal Ground

Transducer Electrical Pin Out Information

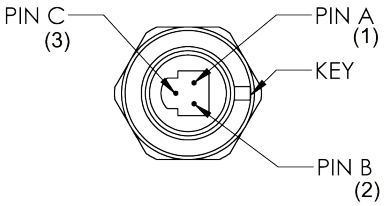
Sensors Inc.®



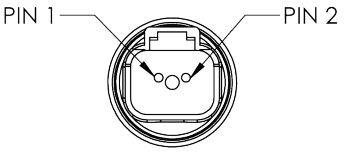
M12 (4 PIN)



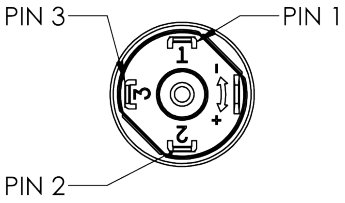
M12 (3 PIN)



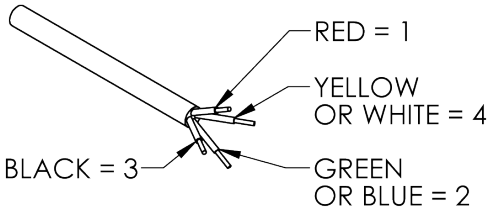
PACKARD PLUG



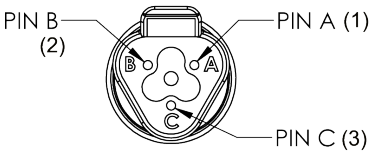
DEUTSCH INTEGRAL (2 PIN)



DIN or MINI DIN



CABLE



DEUTSCH INTEGRAL (3 PIN)

Wiring Data Information Options

- 80				
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4
mA	Supply V+	Output	N/A	N/A
V	Supply V+	Output	Common	N/A

- 81				
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4
mA	Supply V+	Output	N/A	N/A
V	Supply V+	Common	Output	N/A

- 82				
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4
mA	Supply V+	N/A	Output	N/A
V	Supply V+	N/A	Output	Common

- 83				
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4
mA	N/A	Supply V+	N/A	Output
V	N/A	Supply V+	Common	Output

- 84				
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4
mA	Supply V+	N/A	Output	N/A
V	Supply V+	Output	Common	N/A

- 85				
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4
mA	Supply V+	N/A	Output	N/A
V	Supply V+	N/A	Common	Output

- 86				
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4
mA	Supply V+	N/A	N/A	Output
V	Common	N/A	Supply V+	Output

- 87				
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4
mA	Supply V+	N/A	N/A	Output
V	Supply V+	N/A	Common	Output

- 88				
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4
mA	Supply V+	N/A	Output	N/A
V	Supply V+	Common	N/A	Output

- 89				
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4
mA	N/A	Supply V+	Output	N/A
V	Common	Supply V+	Output	N/A

- 90				
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4
mA	Output	Supply V+	N/A	N/A
V	Supply V+	Output	Common	N/A

- 91				
Signal Output	Pin 1	Pin 2	Pin 3	Pin 4
mA	Output	Supply V+	N/A	N/A
V	Output	Supply V+	Common	N/A

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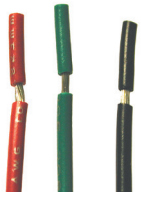
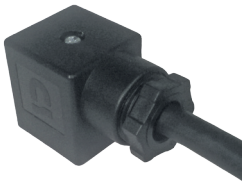
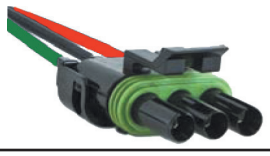
Electrical Configuration

			
FL Flying Leads (Call Factory for Shrink Wrap Options & Pricing)	**SP** “A”,“B” or “C’ Circuit 1/4” Spades	**TS** 6-32 Terminal Screws	**H** DIN 43650A Male Half Only
			
HC DIN 43650A Cable Clamp	**HN** DIN 43650A 1/2” Conduit	**HC11A,B,C** DIN 43650A Lighted DIN	**HC11D** DIN 43650A Indicating Light Green/Red
			
HCC DIN w/36” Cable	**HCM** DIN 43650C	**MDP2** Deutsch DT06-2S 2 Pin Mating Plug	**MDP3** Deutsch DT06-3S 3 Pin Mating Plug
			
WTF/WTM Weather Pack Tower 2 Pin Male or Female Pins	**WSF/WSM** Weather Pack Shroud 2 Pin Male or Female Pins	**WTF3/WTM3** Weather Pack Tower 3 Pin Male or Female Pins	**WSF3/WSM3** Weather Pack Shroud 3 Pin Male or Female Pins
			
DI Integral Deutsch 2 Pin	**DI** Integral Deutsch 3 Pin	**M12 X 1** 2, 3 & 4 Pin	**Packard Plug**

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To better understand your requirements, please fill out the switch application form below.
Copy and either e-mail to sales@pvssensors.com or fax to 1-864-653-1047

SWITCH APPLICATION

COMPANY NAME:			
CONTACT NAME:		E-MAIL:	
ADDRESS:			
PHONE:		FAX:	
SYSTEM PRESSURE: (NORMAL):		(MAXIMUM):	
PORT CONNECTION:			
SET POINT:	RISING / FALLING	DEADBAND REQUIREMENTS:	
ADJUSTABLE RANGE:			
CIRCUIT FORM:	SPST -NO (A)	SPST - NC (B)	SPDT (C)
ELECTRICAL:	VAC:	VDC:	
AMPERAGE:	RESISTIVE:	INDUCTIVE:	
ELECTRICAL CONNECTION:			
TEMPERATURE:	(F°)	MEDIUM:	AMBIENT:
CYCLE RATE:			
OTHER SPECIAL REQUIREMENTS:			
APPLICATION:			
YOUR CURRENT SUPPLIER:			
SAMPLE PROTOTYPE(S) REQUIRED BY:			
ESTIMATED ANNUAL USAGE:		TARGET NET PRICE:	

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West Union, SC 29696

To better understand your requirements, please fill out the transducer application form below. Copy and either e-mail to sales@pvssensors.com or fax to 1-864-653-1047

TRANSDUCER APPLICATION

COMPANY NAME:			
CONTACT NAME:		E-MAIL:	
ADDRESS:			
PHONE:		FAX:	
WHAT IS THE APPLICATION OF THE TRANSDUCER:			
APPROXIMATELY, HOW OFTEN WILL THIS APPLICATION CYCLE?			
ELECTRICAL SUPPLY:	ELECTRICAL OUTPUT: (mA or V)	PORT CONNECTION:	ACCURACY:
PSI (BAR) RANGE:	ELECTRICAL TERMINATION (ALSO INCLUDE PIN OUT WIRING):		
STORAGE TEMPERATURE (F OR C):	MEDIUM:	RESPONSE TIME REQUIRED FOR APPLICATION:	
OVERLOAD PRESSURE:	SNUBBER REQUIRED?		
DO YOU EXPECT RARE, MODERATE, FREQUENT OR CONSTANT PRESSURE SPIKES?			
WILL PULL DOWN RESISTORS BE USED IN THE SYSTEM?			
YOUR CURRENT SUPPLIER AND MODEL NUMBER:			
TARGET PRICE:			
ESTIMATED ANNUAL USAGE:			
TIME FRAME FOR REQUIREMENT:			
SAMPLE PROTOTYPE(S) REQUIRED BY:			
OTHER SPECIAL REQUIREMENTS:			

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Degrees of Protection

The IP Specification

FIRST NUMBER
Protection against solid objects

IP	TESTS
0	no protection
1	protected against solid objects up to 50mm (e.g. accidental touch by hands)
2	protected against solid objects up to 12mm (e.g. fingers)
3	protected against solid objects over 2.5mm (tools & wires)
4	protected against solid objects over 1mm (tools, wires & small wires)
5	protected against dust-limited ingress (no harmful deposit)
6	totally protected against dust

SECOND NUMBER
Protection against liquids

IP	TESTS
0	no protection
1	protected against vertically falling drops of water (e.g. condensation)
2	protected against direct sprays of water up to 15° from the vertical
3	protected against sprays to 60° from the vertical
4	protected against water sprayed from all directions limited ingress permitted
5	protected against low pressure jets of water from all directions limited ingress permitted
6	protected against strong jets of water (e.g. for use on ship decks limited ingress protection)
7	protected against the affects of immersions between 15cm and 1m
8	protected against long periods of immersion under pressure
9	protected against highly pressurized water and steam jet cleaning

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Torque Specifications

PIPE RIGID - Tapered Pipe Threads (NPTF, N/NF) Carbon Steel			
Pipe Size	**Turns-from-Finger**	**Max Ft-Lbs**	**Max N-m**
1/8” (-2)	3/4 - 1 3/4	12	16
1/4” (-4)	3/4 - 1 3/4	25	34
3/8” (-6)	3/4 - 1 3/4	40	54
1/2” (-8)	1/2 - 1 1/2	54	73
3/4” (-12)	1/2 - 1 1/2	78	106
1” (-16)	1/2 - 1 1/2	112	152
1 1/4” (-20)	1/2 - 1 1/2	154	209
1 1/2” (-24)	1/2 - 1 1/2	211	286
2” (-32)	1/2 - 1 1/2	300	407

BRITISH STANDARD PARALLEL PIPE (BSPP, ISO 1179)			
Pipe Size	**Turns-from-Finger**	**Max Ft-Lbs**	**Max N-m**
1/8” - 28	2 to 3	13	18
1/4” - 19	2 to 3	37	50
3/8” - 19	2 to 3	46	63
1/2” - 14	2 to 3	118	160
3/4” - 14	2 to 3	148	200
1” -11	2 to 3	250	340
1 1/4” -11	1 1/2 - 2 1/2	332	450
1 1/2” - 11	1 1/2 - 2 1/2	413	560
2” - 11	1 1/2 - 2 1/2		

STUD END O-RING BOSS (ORB) SAE (U/UF)			
Pipe Size	**Thread UNF-2A**	**Max Ft-Lbs**	**Max N-m**
-2	5/16” - 24	6-7	8-9
-3	3/8” - 24	8-9	11-12
-4	7/16” - 20	13-15	18-20
-5	1/2” - 20	17-19	23-26
-6	9/16” - 18	22-24	29-33
-8	3/4” - 16	40-43	49-53
-10	7/8” - 14	43-48	59-64
-12	1 1/16” - 12	68-75	93-102
-14	1 3/16” - 12	90-99	122-134
-16	1 5/16” - 12	112-123	151-166
-20	1 5/8” - 12	146-161	198-218
-24	1 7/8” - 12	154-170	209-231

STUD END O-RING BOSS (ORB) Metric			
Pipe Size	**ME/MCA (Torque N•m)**	**MCB Max Ft-Lbs**	**MB Max N-m**
M8x1	8	n/a	n/a
M10x1	15	9	18
M12x1.5	25	20	30
M14x1.5	35	35	45
M16x1.5	40	45	65
M18x1.5	45	55	80
M22x1.5	60	65	140
M27x2	100	90	190
M30x2	130	n/a	n/a
M33x2	160	150	340
M42x2	210	240	500
M48x2	260	290	630
M60x2	315	n/a	n/a

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Material Compatibility

Media	Buna	EPDM	Viton
Acetic Acid		*	
Acetone		*	
Acetylene	*		
Air	*		
Alcohols	*		
Alkalies (Weak)	*		
Alkalies (Strong)		*	
Ammonia (Anhydrous)	*		
Ammonia (Hydroxide)		*	
Asphalt			*
Automotive Oils	*		
Beer	*		
Benzene			*
Boric Acid	*		
Brake Fluid		*	
Bunker Oil	*		
Butane	*		
Butyl Cellosolve		*	
Carbon Dioxide	*		
Carbon Monoxide	*		
Cellube		*	
Chiorobenzene			*
Citric Acid	*		
Coke Oven Gas			*
Coolant	*		
Diesel Fuels	*		
Di-Ester Lube (MIL-L-7808)			*
Dowtherm A&E		*	
Ethanol	*		
Ether		*	
Ethylene	*		
Ethylene Glycol	*		
Freon 11, 12, 112, 114	*		
Freon 22		*	
Fyrquel		*	
Fuel Oil	*		
Gasoline	*		
Glycerin	*		
Helium	*		
Hexane	*		

Media	Buna	EPDM	Viton
Hydraulic Oil (PET Base)	*		
Hydrocarbons	*		
Hydrogen	*		
Hydrogen Sulphide		*	
Isopropanol		*	
JP-3-6	*		
Kerosene	*		
LPG	*		
Lube Oil (PET Base)	*		
Methanol	*		
MEK		*	
Mineral Oil	*		
Motor Oils	*		
Naptha		*	
Natural Gas	*		
Nitric Acid		*	
Nitrogen	*		
Cleum Spirits			*
Oxygen			*
Ozone		*	
Crude Oil	*		
Phosphoric Acid			*
Propane	*		
Propanol	*		
Pydraul		*	
Shell Iris 902	*		
Silicone Greases	*		
Silicone Oils	*		
Skydrol 500 & 7000		*	
Soap Solutions	*		
Steam Below 320°F		*	
Stoddard Solvent	*		
Sulfuric Acid			*
Tolulene			*
Transmission Fluid A	*		
Trisodium Phosphate	*		
Turpentine	*	*	
Water to 220°F (104°C)	*		
Water to 302°F (150°C)		*	

Terms and Conditions

PAYMENT TERMS
Net 30 days. Automatic C.O.D. after 60 days without prior notification, FOB: West Union, SC

WARRANTY
PVS Sensors, Inc. (the "manufacturer") warrants this product only (the "product") to the original purchaser only (the "purchaser") against defective workmanship and materials under normal use of the product for a period of twelve (12) months from the date of shipment by PVS Sensors, Inc. This warranty is absolutely conditional upon the product having been properly installed, maintained and operated under conditions of normal use in accordance with the manufacturers recommended installation and operation instructions. Products which have become defective for any other reason, according to the manufactures discretion, such as improper installation, failure to follow recommended installation and operational instructions, neglect, willful damage, misuse, accidental damage, alteration or tampering, or repair by anyone other than the manufacturer, are not covered under this warranty.

THIS WARRANTY IS EXCLUSIVE AND EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES. OBLIGATIONS OR LIABILITIES, WHETHER WRITTEN, ORAL, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE. IN NO CASE SHALL THE MANUFACTURER BE LIABLE TO ANYONE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS WARRANTY OR ANY OTHER WARRANTIES WHATSOEVER, AS AFORESAID. THE MANUFACTURER SHALL IN NO EVENT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES OR FOR LOSS, DAMAGE, OR EXPENSE, INCLUDING LOSS OF USE, PROFITS, REVENUE, OR GOODWILL, DIRECTLY OR INDIRECTLY ARISING FROM PURCHASER'S USE OR INABILITY TO USE THE PRODUCT, OR FOR LOSS OR DESTRUCTION OF OTHER PROPERTY OR FROM ANY OTHER CAUSE, EVEN IF MANUFACTURER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. THE MANUFACTURER SHALL HAVE NO LIABILITY FOR ANY DEATH, PERSONAL AND/OR BODILY INJURY AND/OR DAMAGE TO PROPERTY OR OTHER LOSS WHETHER DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR OTHERWISE, BASED ON A CLAIM THAT THE PRODUCT FAILED TO FUNCTION.

However, if the manufacturer is held liable, whether directly or indirectly, for any loss or damage arising under this limited warranty, the manufacturer's maximum liability (if any) shall not exceed the purchase price of the product, which shall be fixed as liquidated damages and not as a penalty, and shall be the complete and exclusive remedy against the manufacturer.

When accepting the delivery of the product, the purchaser agrees to the said conditions of sale and warranty and he recognizes having been informed of. Some jurisdictions do not allow the exclusion of limitation of incidental or consequential damages, so these limitations may not apply under certain circumstances.The manufacturers obligations under this warranty are limited solely to repair and/or replace at the manufacture's discretion any product or part thereof that may prove defective. Any repair and/or replacement shall not extend the warranty period. The manufacturer shall not be responsible for dismantling and/or reinstallation costs. To exercise this warranty the product must be returned to the manufacturer freight pre-paid and insured. All freight and insurance costs are the responsibility of the purchaser and are not included in this warranty. This warranty shall not be modified, varied or extended, and the manufacturer does not authorize any person to act on its behalf in the modification, variation or extension of this warranty. This warranty shall apply to the product only. This warranty is exclusive to the original purchaser and is not assignable. This warranty is in addition to and does not affect your legal rights. Any provision in this warranty which is contrary to the law in the state or country where the product is supplied shall not apply.

RETURNED GOODS - PVS Sensors Inc. reserves the right to accept material back at our descretion. All returns must be accompanied by our Return Authorization Form. PVS Sensors Inc., is not responsible for material returned without authorization. Material may be returned for a credit less a 25% restocking fee with an order of equal value or less 50% restocking fee without an order of equal value provided materials are in saleable condition and freight is prepaid. All returns for restock must be accompanied by a copy of the original invoice, otherwise items are assumed to have been purchased at the maximum discount and credit is issued accordingly.

CREDIT ISSUE POLICY - Credit balances can be offered by material purchase only. Cash payments are not allowed. PVS Sensors Inc. reserves the right to assess a restocking fee on all items returned for credit.

PRICING - Subject to change without prior notification.

SPECIAL ORDERS - Special orders are not cancellable.

CONDITIONS - PVS Sensors Inc. must have a copy of your sales tax exemption certificate on file. Any discrepancies in either billing or shipping must be reported within 30 days from receipt of order. The carrier must be contacted if package is damaged when received and goods must be kept with original packaging for inspection by the carrier.

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- Refrigerant
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- Agriculture
- CNC

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