

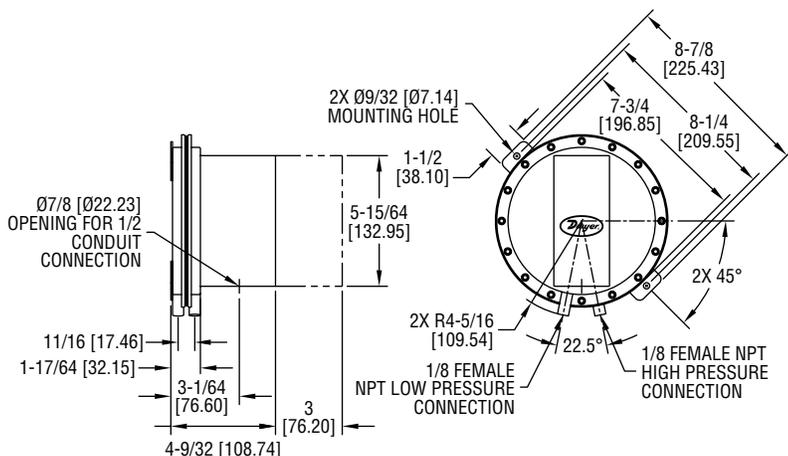


Series 1620 – Single and Dual Pressure Switches

Specifications - Installation and Operating Instructions



Series 1620 Pressure Switch



INSTALLATION

1. Switch is normally calibrated for mounting in the vertical position with pressure and electrical connections pointing down. If other mounting is desired, it should be specified when ordering.
2. Two lugs with 9/32" diameter holes, 180 degrees apart on an 8-1/4" diameter circle are provided.
3. The location selected should be free from excessive vibration and ambient temperatures should not be above 130°.

OPERATION

1. General – Differential pressure acting on the power diaphragm rotates a channel, compressing a calibrated spring. The rotation of the channel actuates a snap switch when the set-point is reached, opening one set of electrical contacts and closing the other.
2. Pressure Connections – Two 1/8" NPT female connections are provided. Make appropriate connections as follows:
 - A. Differential Pressure – Connect tubing from source of greater pressure to high pressure port and from lower source to low pressure port.
 - B. Positive Pressure (above atmospheric) – Connect tubing from pressure source to high pressure port. Leave low pressure port vented to atmosphere.
 - C. Negative Pressure (vacuum) – Connect tubing from vacuum source to low pressure port. Leave high pressure port vented to atmosphere.

Note: When installing switch per paragraphs B or C in dusty environments, we recommend use of optional A-331 filter vent plug in the unused port. This will keep excess dirt from collecting inside switch.

3. Electrical Connections – Make wire connections for normally open or normally closed operation to appropriate screw terminals on snap switch.

ADJUSTMENT

1. If switch has been furnished pre-set, mount it vertically or horizontally as specified. Shifting the position of the switch will alter the set point. Because the set-point may shift in transit it should be checked before placing it in service.
2. The effective area of either side of the power diaphragm is changed by the effect of the sealing diaphragm. Thus, the actuating differential pressure setting must be made with the total pressure for the service intended imposed on both sides of the diaphragm. For example, a switch set to close a circuit at a differential pressure increase to 1" of water with a total pressure of 1 PSIG will vary from the 1" of water setting if the total pressure is increased to 2 PSIG. Also, a two or three percent variation will be noted if a switch set for vacuum or below atmospheric pressure is used for pressure or above atmospheric pressure control.
3. To establish the set-point, use a manometer or pressure gage in an appropriate range and of known accuracy. Apply pressure slowly to allow equalization in all branches of the system. Keep tubing lengths as short as possible.

SPECIFICATIONS

<p>Service: Air and non-combustible, compatible gases.</p> <p>Wetted Materials: Consult factory.</p> <p>Temperature Limits: -30 to 130°F (-34.4 to 54.4°C).</p> <p>Pressure Limits: Max. 50 in. w.c. (12.44 kPa) continuous, 2 psig (13.79 kPa) surge.</p> <p>Switch Type: 1626, Single-pole double-throw (SPDT); 1627, two Single-pole double-throw (SPDT).</p> <p>Repeatability: ±1%.</p> <p>Electrical Rating: 15 A @ 120-480 VAC, 60 Hz. Resistive, 1/8 HP @ 125 VAC, 1/4 HP @ 250 VAC, 60 Hz.</p>	<p>Electrical Connections: 3 screw type, common, normally open and normally closed.</p> <p>Process Connections: 1/8" female NPT.</p> <p>Mounting Orientation: Diaphragm in vertical position. Consult factory for other position orientations.</p> <p>Set Point Adjustment: Screw Adjustment.</p> <p>Weight: Model 1626, 3 lb, 9.8 oz (1.64 kg); Model 1627, 3 lb, 11.8 oz (1.69 kg).</p> <p>Agency Approvals: CE.</p>
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MODEL 1626, ALSO MODEL 1627 DUAL SWITCHES: OPERATING RANGES, DEAD BANDS AND RATINGS.

Model (1626 shown, 1627 similar)	Operating Range in w.c.	Approximate Dead Band		Adj. Diff. Between Set Points (1627 only)
		Min.	Max.	
1626-1	.15 to 1.5	.10	.20	0.5
1626-5	.5 to 6.0	.15	.35	1.2
1626-10	2.0 to 11	.25	.65	2.3
1626-20	8.0 to 24	.50	1.20	5.0

Add -EXPL for explosion proof housing;
Add -WP for weather proof housing

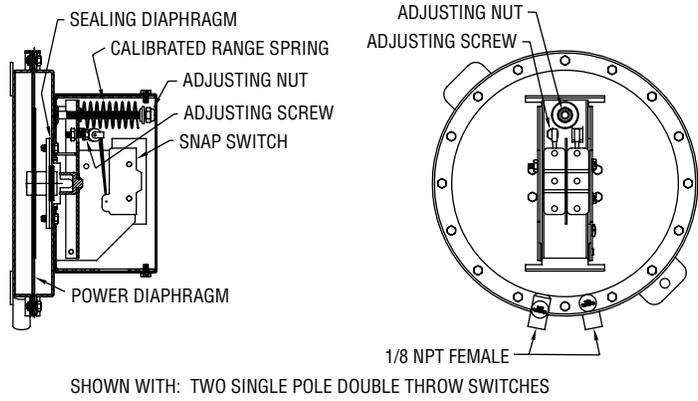
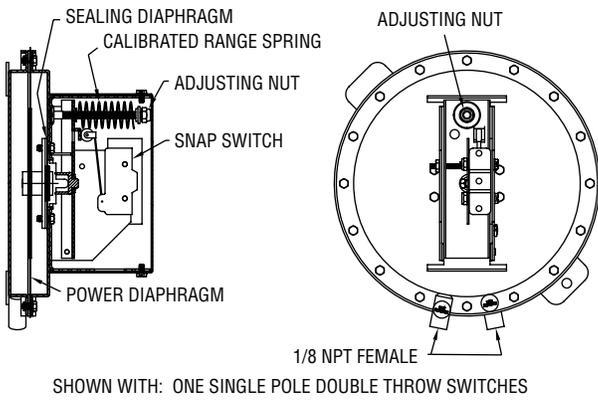
4. Model 1626 – The set-point is changed by turning the adjusting nut clockwise to increase and counter-clockwise to decrease. Model 1627 – The set-point of snap switch No. 2 is established first using the adjusting nut as with the 1626 series. Next, set snap switch No. 1 by turning the adjusting screw under the switch roller. Recheck switch No. 2 and correct as necessary. If switch No. 2 needs re-adjustment a final check of switch No. 1 should be made. The settings of the two switches affect one another and both should be checked any time either is changed.

MAINTENANCE

No unusual precautions are required. Care should be taken to keep the switch reasonably dry and free from dust or dirt. No lubrication required.

CAUTION: For use with air or compatible gases only.

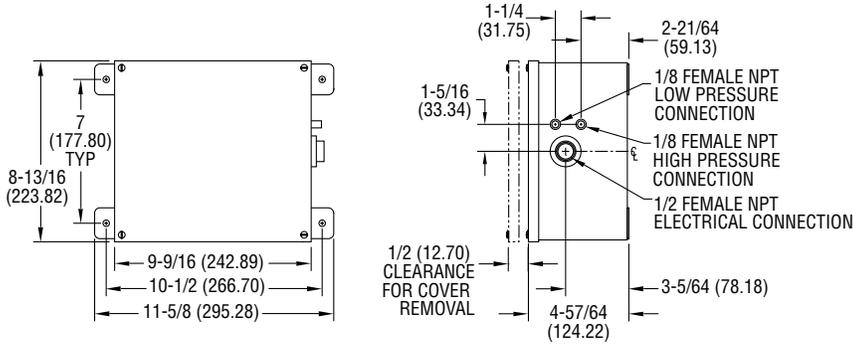
SERIES 1620 – DIMENSIONS



OPTIONAL ENCLOSURES

Weatherproof Housing

Note: Pressure and electrical connections must face down when mounted.



Explosion-proof Housing

Class I, Groups C & D; Class II, Groups E, F & G; Class III

Warning: To reduce the risk of ignition of the hazardous atmosphere, conduit seals must be installed within 18" of this enclosure. Disconnect enclosure from supply circuit before opening. Keep assembly tight during operation.

