

REMOTE MANUAL PULL STATION

The remote manual pull station (Part No. 434618 or 435960) is made out of a molded red composite material. The red color makes the pull station more readily identifiable as the manual means for fire suppression system operation. The pull station is compatible with the ANSUL Flexible Conduit. The molded manual pull station should be mounted at a point of egress and positioned at a height determined by the authority having jurisdiction. Trim Rings, Part No. 427074 (pack of 10), are available.

Part No. 434618 (Without Wire Rope)

Part No. 435960 (With 50 ft (15.2 m) of Wire Rope)

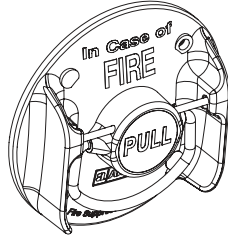


FIGURE 27
008326

FLEXIBLE CONDUIT

Flexible conduit allows for quicker installations and the convenience of being able to route the cable over, under and around obstacles. Flexible conduit can be used as a substitute for standard EMT conduit or can be used with EMT conduit. Flexible conduit can be used only with the Molded Manual Pull Station, Part No. 434618, and mechanical gas valve installations. The Flexible Conduit comes in a 500 ft (152.4 m) length, Part No. 434525, or together with 500 ft (152.4 m) of wire rope, Part No. 435959.

Also available is a Flexible Conduit Strain Relief (50-pack), Part No. 435979.

A 50-pack of Flexible Conduit Inserts, Part No. 434347, is also available.

Note: Flexible conduit cannot be used in detection systems.

MECHANICAL GAS VALVES

The mechanical gas valves are designed to shut off the flow of gas to the appliances upon actuation of the regulated release assembly. The valves are available in sizes of 3/4 in., 1 in., 1 1/4 in., 1 1/2 in., and 2 in. ANSUL style; and 2 1/2 in. and 3 in. ASCO style. The valves are rated for natural and LP gas. Both styles are UL Listed and includes the air cylinder, tubing, and fittings, Part No. 15733, for connection to the release mechanism.

Part No.	Description	Maximum Operating Pressure
55598	3/4 in. Gas Valve (ANSUL)	10 psi (0.69 bar)
55601	1 in. Gas Valve (ANSUL)	10 psi (0.69 bar)
55604	1 1/4 in. Gas Valve (ANSUL)	10 psi (0.69 bar)
55607	1 1/2 in. Gas Valve (ANSUL)	10 psi (0.69 bar)
55610	2 in. Gas Valve (ANSUL)	10 psi (0.69 bar)
25937	2 1/2 in. Gas Valve (ASCO)	5 psi (0.35 bar)
25938	3 in. Gas Valve (ASCO)	5 psi (0.35 bar)

Pipe Size (inches)	Flow Capacity (CFH) P.D. 1 in. WC 0.64 SP GR	BTU/HR, at 1 in. P.D. 0.64 SP GR 1000 BTU/ft ³ Natural Gas
3/4	751	751,000
1	1288	1,288,000
1 1/4	1718	1,718,000
1 1/2	2630	2,630,000
2	4616	4,616,000
2 1/2	5700	5,800,000
3	7100	7,300,000

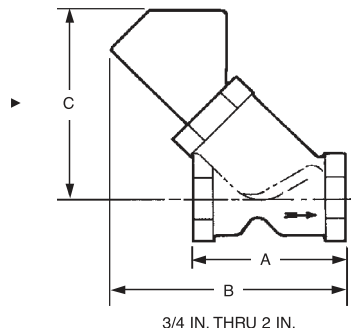
To calculate gas flow for other than 1 inch p.d.:

$$\text{New cfh} = (\text{cfh at 1 inch}) \times \sqrt{\text{new p.d.}}$$

To calculate gas flow for other than 0.64 SP GR:

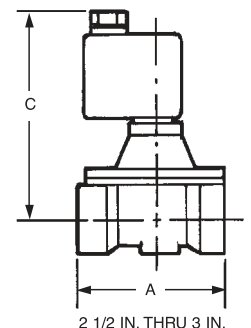
$$\text{New cfh} = (\text{cfh at 0.64}) \times \sqrt{\frac{0.64}{\text{New SP GR}}}$$

Valve Size	A		B		C	
in.	in.	(mm)	in.	(mm)	in.	(mm)
3/4 in.	3 3/4	(95.3)	6 3/8	(161.9)	5 1/2	(139.7)
1 in.	3 3/4	(95.3)	6 3/8	(161.9)	5 1/2	(139.7)
1 1/4 in.	4 7/8	(123.8)	7 3/8	(187.3)	6 3/8	(161.9)
1 1/2 in.	4 7/8	(123.8)	7 3/8	(187.3)	6 3/8	(161.9)
2 in.	5 7/8	(149.2)	7 7/8	(200.0)	6 11/16	(169.9)
2 1/2 in.	7 13/16	(198.4)	-----	-----	9 1/16	(230.2)
3 in.	7 25/32	(197.6)	-----	-----	9 1/16	(230.2)



3/4 IN. THRU 2 IN.

004208



2 1/2 IN. THRU 3 IN.

004209

FIGURE 28

ELECTRICAL GAS VALVES

The electrical gas valves are designed to shut off the flow of either natural or LP gas to the appliances upon actuation of the regulated release assembly. The valves are available in sizes of 3/4 in., 1 in., 1 1/4 in., 1 1/2 in., 2 in., 2 1/2 in., and 3 in. The valve is held open by an energized solenoid and upon system actuation, the switch contacts in the regulated release assembly open, thus de-energizing the circuit to the gas valve solenoid, causing the valve to close. Valves are available in 120 VAC and are UL Listed.

Part No.	Description	Max. Operating Pressure
13707	3/4 in. Solenoid Gas Valve (ASCO)	25 psi (1.7 bar)
13708	1 in. Solenoid Gas Valve (ASCO)	25 psi (1.7 bar)
550360	1 1/4 in. Solenoid Gas Valve (ASCO)	25 psi (1.7 bar)
13709	1 1/2 in. Solenoid Gas Valve (ASCO)	25 psi (1.7 bar)
13710	2 in. Solenoid Gas Valve (ASCO)	25 psi (1.7 bar)
550363	2 1/2 in. Solenoid Gas Valve (ASCO)	5 psi (0.35 bar)
17643	3 in. Solenoid Gas Valve (ASCO)	5 psi (0.35 bar)

Pipe Size (inches)	Flow Capacity (CFH) P.D. 1 in. WC 0.64 SP GR	BTU/HR, at 1 in. P.D. 0.64 SP GR 1000 BTU/ft ³ Natural Gas
3/4	264.96	247,500
1	1091.01	1,119,000
1 1/4	1662.49	1,730,000
1 1/2	1818.35	1,900,000
2	3117.18	3,251,000
2 1/2	6078.49	5,821,000
3	7169.51	7,430,000

To calculate gas flow for other than 1 inch p.d.:

New cfh = (cfh at 1 inch) x $\sqrt{\text{new p.d.}}$

To calculate gas flow for other than 0.64 SP GR:

New cfh = (cfh at 0.64) x $\sqrt{\frac{0.64}{\text{New SP GR}}}$

Valve Size	A		B	
	in.	(mm)	in.	(mm)
3/4 in.	3 5/16	(81.0)	3 5/8	(92.1)
1 in.	5	(127.0)	6 27/32	(173.8)
1 1/4 in.	7 13/16	(198.4)	7 29/32	(200.8)
1 1/2 in.	5	(127.0)	5 19/32	(142.1)
2 in.	6 3/32	(78.6)	5 15/16	(150.8)
2 1/2 in.	7 13/16	(198.4)	7 29/32	(200.8)
3 in.	7 13/16	(198.4)	7 29/32	(200.8)

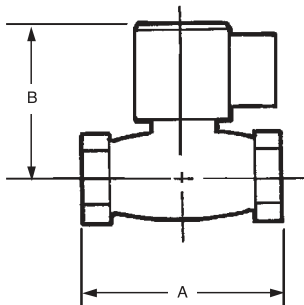


FIGURE 29
004210

MANUAL RESET RELAY

The Manual Reset Relay, Part No. 426151, is required when using an electrical gas valve shut-off system. After the electric gas valve has closed, either due to system actuation or power failure, the valve cannot be re-opened, allowing gas to flow, until the reset relay button is manually pressed, re-energizing the circuit. The reset relay is available 120 VAC. The manual reset relay is also recommended for electrical shut down.

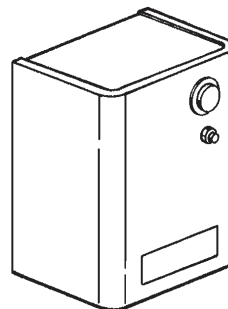


FIGURE 30
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ELECTRICAL SWITCHES

The electrical switches are intended for use with electric gas valves, alarms, contactors, lights, contractor supplied electric power shut-off devices and other electrical devices that are designed to shut off or turn on when the system is actuated.

Switches are available in kits: One Switch Kit, Part No. 423878, Two Switch Kit, Part No. 423879, Three Switch Kit, Part No. 423880, and Four Switch Kit, Part No. 423881. Mounting hardware and 12 in. (305 mm) long wire leads are provided with each kit. Each switch has a set of single-pole, double-throw contacts rated at:

UL/cUL/CSA Rating
 250 VAC, 21A Resistive
 250 VAC, 2 HP
 125 VAC, 1 HP

ENEC Rating
 IE4T105μ Approved
 250V, 21A Resistive
 8A Motor Load

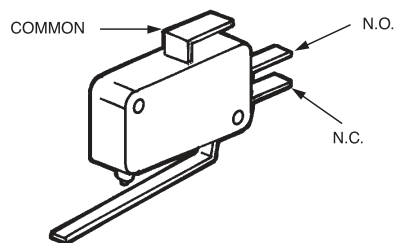


FIGURE 31
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