

Valve Performance

Formula for K_v $\Delta P = Q^2 / K_v^2$

K_v = Flow Factor

Q = Flow (m³ / hr)

ΔP = Pressure (bar)

Formula for C_v $\Delta P = Q^2 / C_v^2$

C_v = Flow Coefficient

Q = Flow (GPM)

ΔP = Pressure Drop (psi)

Nominal Valve Size		Actual Outside Diameter		Flow Coefficient (C_v)	Flow Factor (K_v)	Equivalent Feet Of Pipe *
in	mm	in	mm	English	Metric	ft
2½	65	2.9	73.0	250	216	4.6
3	80	3.5	88.9	400	346	5.6
4	100	4.5	114.3	700	606	7.5
6	150	6.6	168.3	1600	1384	11.9
8	200	8.6	219.1	3100	2682	13.3

* Specified for standard schedule 40 steel pipe.

Wiring Instructions

1. The supervisory switch assembly contains two single pole, double throw, pre-wired switches.

2. Switch ratings:

10 amps @ 125 or 250 VAC/60 Hz

0.5 amps @ 125 VDC

0.25 amps @ 250 VDC

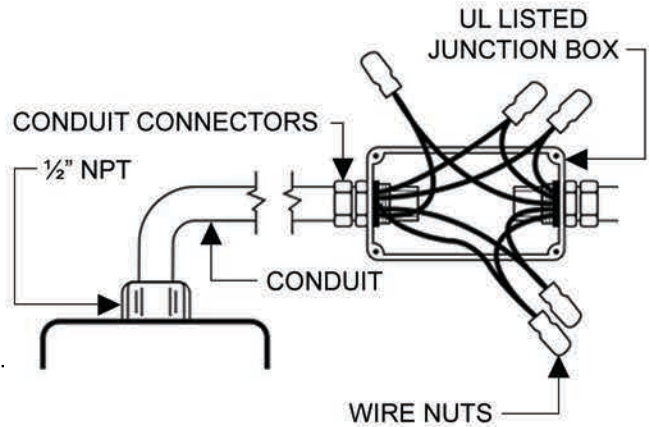
3. Switch One and Two supervise the valve in the "OPEN" position.

4. Switch One has two #18 insulated wires per terminal, permitting complete supervision of leads. Switch Two has one #18 insulated wire per terminal. This double circuit allows for the operation of two separate electrical devices (audible alarms, indicating lights, etc.) in close proximity to the valve installation.

5. A #14 insulated ground lead (green) is provided

Switch One (S1) For connection to a supervisory circuit of a UL Listed alarm control panel.

Switch Two (S2) For connection to auxiliary devices per the authority having jurisdiction.



S1	Normally Open: (2) Blue
	Normally Closed: (2) Brown
	Common: (2) Yellow

S2	Normally Open: Blue with Orange Stripe
	Normally Closed: Brown with Orange Stripe
	Common: Yellow with Orange Stripe

Note: The below diagram shows a connection between the common terminal (S1: Yellow) (S2 Yellow with Orange Stripe) and the normally Open terminal (S1: Blue) (S2: Blue with Orange Stripe). In this example, the auxiliary signal device will remain ON until the valve is fully open. The auxiliary signal device will only turn OFF when valve is fully opened. Only S1 (two leads per terminal) may be connected to the fire alarm control panel. The connection of the alarm switch wiring shall be in accordance with NFPA 72 and the auxiliary switch per NFPA 70 (NEC). Remember to cap off any unused wires.

