



## Priority Demand Valve Fig. PDV-02

### Product Description

Electrically driven Priority Demand valve assembly for use with mains water supply or stored water supply systems.

Upon activation of a flow switch / relay, the valve will automatically close the domestic supply allowing all water to flow to the sprinkler system.

The priority demand valve is available in ball or butterfly type body, depending on size, attached to an electric actuator along with a pre-wired control box.

Designed to meet BS 9251 2014 - Valve for isolating domestic supply in the event of sprinkler activation.

### Features

#### Ball Valve

- Full bore quarter turn valve
- Brass body and ball
- PTFE seat, NBR 'O' rings
- WRAS approved

#### Butterfly valve

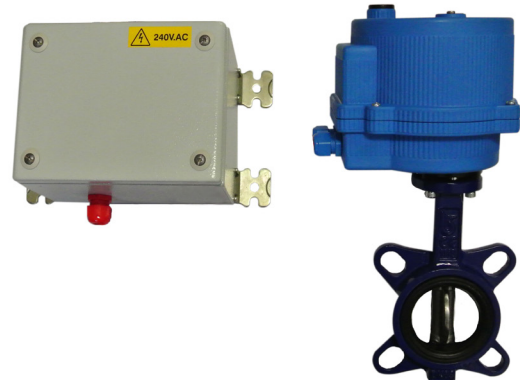
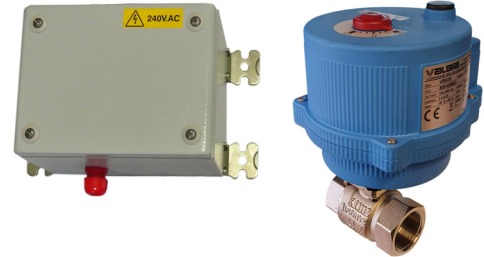
- Quarter turn valve
- Stainless steel disc, EPDM liner
- Epoxy coated ductile iron body
- WRAS approved

#### Actuator

- 24V DC low voltage, power to open/power to close actuator
- IP67 housing of V0 self-extinguish class technopolymer material.
- 90° rotation time of less than 10 seconds
- Internal electronic circuit that automatically adjusts motor speed depending on mechanical variation in order to drive the cycle in the same time
- Internal electronic system for torque limitation
- Internal anti-condensation heater that is automatically activated once the temperature inside the housing falls below 25°C and motor is not running
- External visual position indication
- Two internal limit switches for remote monitoring open/closed position (optional).

#### Control Box

- Metal IP66 wall mounted enclosure with external mounting brackets
- Internal control circuit to receive change of state signal from either a signal flow switch or relay switch (looped system) to initiate the electric actuator (24V DC rated connections)
- Absorbed current:  
Ball Valve 24V = 1.0A, Butterfly Valve 24V = 1.8A
- Power supply required 230V AC



### Working Pressure

Max. Working Pressure 10 bar (145 psi)

### Working Temperature Range

-10°C to 95°C (14°F to 203°F)

### Connections

#### Ball valve (DN25 to DN50)

- BSP female thread according to ISO 228/1

#### Butterfly valve (DN65 to DN150)

- Semi lug wafer pattern to suit PN16 Flange according to BS EN 1092 and Table D/E flanges according to BS 10

### Operation

Rapidrop Priority demand valve is a power to open/power to close type actuator and requires uninterrupted power supply to operate/ function.

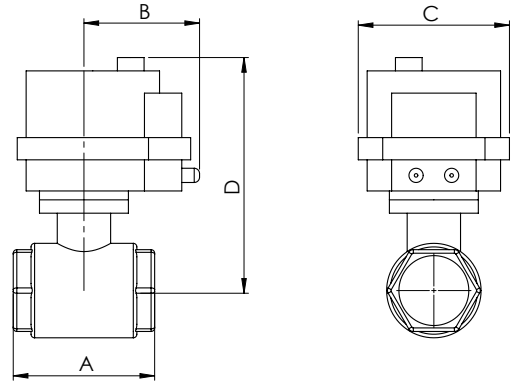
It is recommended to connect the valve to an emergency back-up power supply to enable the valve to operate during a power cut.

### Priority Demand Valve

#### Fig. PDV-02

#### Ball Valve Dimensions

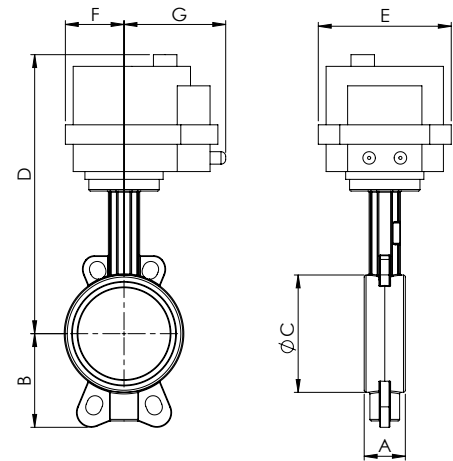
Sizes		Dimensions (mm)				Flow Rate (KV)
mm	Inch	A	B	C	D	
DN25	1"	83	130	157	202	43
DN32	1 1/4"	94	130	157	207.5	89
DN40	1 1/2"	102	130	157	219	230
DN50	2"	124	130	157	226.5	265



#### Butterfly Valve Dimensions

Sizes		Dimensions (mm)						
mm	Inch	A	B	C	D	E	F	G
DN65	2 1/2"	46	69	102	297	157	61	130
DN80	3"	46	90	118	311	157	61	130
DN100	4"	52	106	150	331	157	61	130
DN125	5"	56	119	174	341	157	61	130
DN150	6"	56	131	205	361	157	61	130

WRAS approval for valve body owned by Brandoni S.P.A

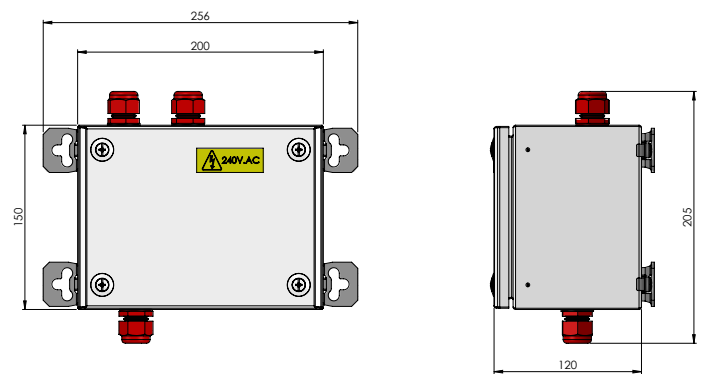


#### Ordering Codes

Sizes		Isolation Valve	Ordering Codes
mm	Inch		
DN25	1"	Ball Valve	RDPDV-02-025
DN32	1 1/4"	Ball Valve	RDPDV-02-032
DN40	1 1/2"	Ball Valve	RDPDV-02-040
DN50	2"	Ball Valve	RDPDV-02-050
DN65	2 1/2"	Butterfly Valve	RDPDV-02-065
DN80	3"	Butterfly Valve	RDPDV-02-080
DN100	4"	Butterfly Valve	RDPDV-02-100
DN125	5"	Butterfly Valve	RDPDV-02-125
DN150	6"	Butterfly Valve	RDPDV-02-150

Rapidrop Priority Demand Valve includes 1x electrically actuated isolation valve and 1x control box. To connect multiple isolation valves with a single control box please contact Rapidrop for assistance.

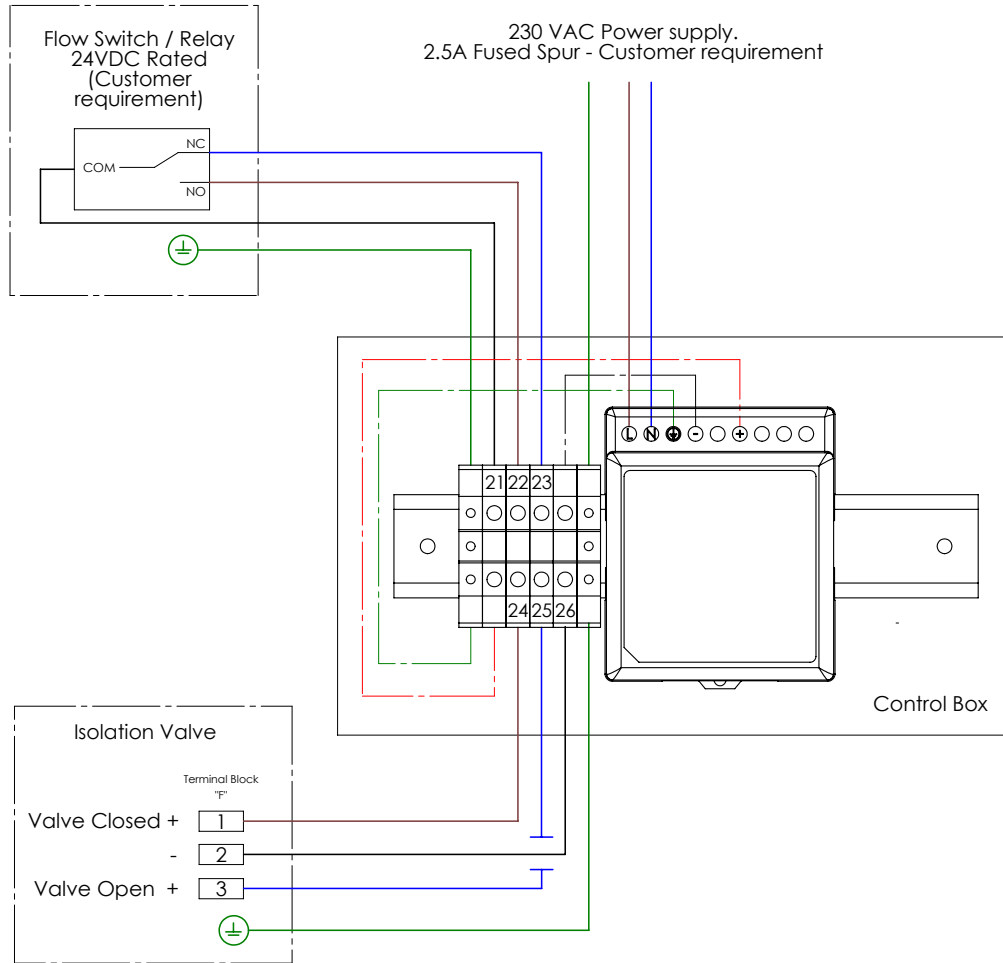
#### Control Box Dimensions



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## Fig. PDV-02

### Wiring diagram



Note: Solid line indicates wiring requirements of customer

### Care and Maintenance

Rapidrop priority demand valve requires no regular maintenance, however it is advisable to inspect and verify proper operation of the unit annually or in accordance with the authority having jurisdiction.

The installation and maintenance of the priority demand valve must only be made by qualified personnel.

Isolation valve should not be used to force a pipeline into position as this may result in the distortion of the valve body.

Before removing any covers, always make sure the power supply to the control unit is shut off.