

# MODEL QRS™ PACKAGE ELECTRONIC DRY PIPE VALVE ACCELERATOR

*Quick Opening Device*

## FEATURES & BENEFITS

- ◆ *Easier to Install, Set and Maintain than Mechanical Accelerators*
- ◆ *Can Be Used to Replace Mechanical Accelerator*
- ◆ *Operation of the Dry Pipe Valve within Four Seconds*
- ◆ *Built-in Low Pressure and High Pressure Alarm Supervision*
- ◆ *Proven Electric Release Technology*
- ◆ *Battery Back-up in the Event of Primary Power Failure*
- ◆ *Fully Packaged Kit is Available*

## GENERAL DESCRIPTION

The Model QRS Electronic Dry Pipe Valve Accelerator is a quick opening device intended to reduce the time for dry pipe valve operation following the operation of one or more automatic sprinklers.

The Model QRS Electronic Dry Pipe Valve Accelerator utilizes a unique system air pressure monitoring device that continuously samples air pressure twice per second. When the air pressure is determined to have a sustained drop exceeding a rate of 0.1 psi (0,007 bar) per second as verified by three consecutive samplings, the QRS signals the Releasing Panel via its "Dry Contact Initiating Zone" circuit, which in turn energizes the Solenoid Valve. The energized Solenoid Valve introduces system air pressure to the intermediate chamber of the dry pipe valve. This pressure neutralizes the differential pressure holding the dry pipe valve closed and permits it to open.

The Model QRS Electronic Dry Pipe Valve Accelerator automatically adjusts to both small and slow changes in system pressure, but trips in response to a steady drop in pressure (as in the case of sprinkler operation).



## TECHNICAL DATA

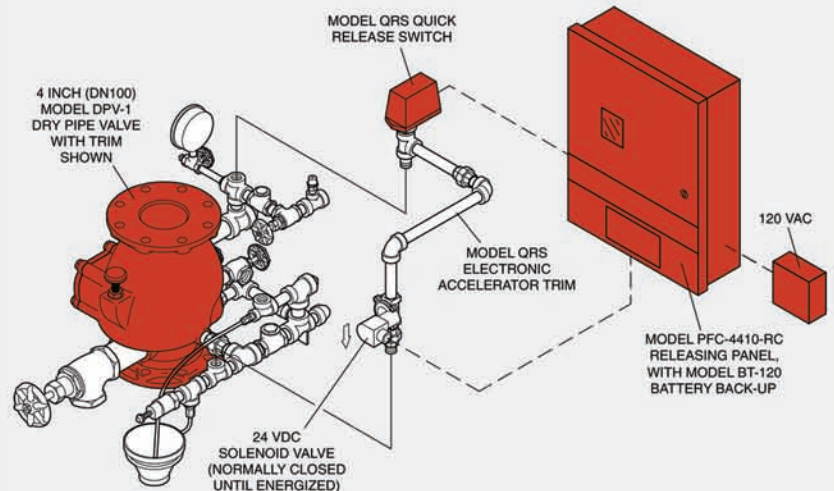
**Approvals:** UL Listed - Per UL1486 for a maximum system capacity of 1690 gallons (6397 litres), FM Approved.

**Maximum Working Air Pressure:** 70 psi (4,8 bar)

**Battery Back-Up:** 24 hours with two BT-80 (8.0 AH) Batteries (90 hours of back-up can be achieved with two BT-120 (12 AH) Batteries)

**Pressure Decay For Trip Rating:** 0.1 psi/sec. (0,007 bar/s)

## QRS Electronic Accelerator Package



*Always refer to the Technical Data Sheet TFP1100 for complete description of all Listing criteria, design parameters, installation instructions, care and maintenance guidelines, and our limited warranty.*

# MODEL QRS™

# ORDERING PROCEDURE & SPECIFICATIONS

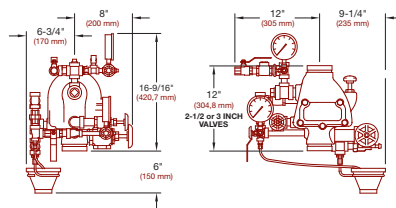
Part Numbers indicate electric accelerator package and valve size

## DRY PIPE VALVE SIZE & CONNECTIONS (TFBP MOD. DPV-1)

**2-1/2" (DN65)**

Groove x Groove

**P/N: 52-310-1-910**



**3" (DN80)**

Groove x Groove

**P/N: 52-310-1-912**

**4" (DN100)**

Groove x Groove

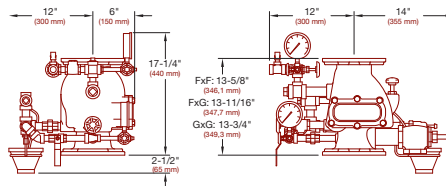
**P/N: 52-310-1-913**

Flange x Groove

**P/N: 52-310-1-413**

Flange x Flange

**P/N: 52-310-1-013**



**6" (DN150)**

Groove x Groove

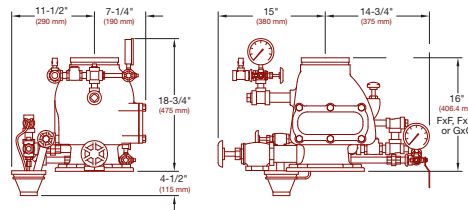
**P/N: 52-310-1-915**

Flange x Groove

**P/N: 52-310-1-415**

Flange x Flange

**P/N: 52-310-1-015**



## ELECTRONIC ACCELERATOR PACKAGE

**Model QRS Electronic Dry Pipe Valve Accelerator Package for Double Interlock Systems**

(Details provided in TFP1100)

1-24 VDC Solenoid Valve

1-PFC-4410 RC Releasing Panel,

2-BT-80 8.0 AH Battery

**P/N 52-312-2-102**



**Model QRS QRS Electronic Dry Pipe Valve Accelerator Package for Dry Pipe Systems.**

(no Releasing Panel)

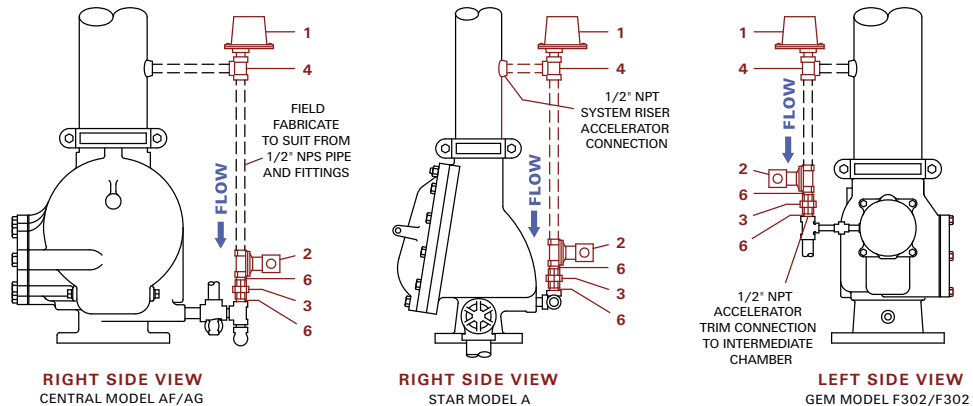
(Details provided in TFP1100)

1-24 VDC Solenoid Valve

**P/N 52-312-2-001**

## Installation Diagram with Dry Pipe Valves

(Other than DPV-1 Dry Pipe Valves)



| No. | Description                    | Qty. |
|-----|--------------------------------|------|
| 1   | Quick Release Switch Model QRS | 1    |
| 2   | Solenoid Valve                 | 1    |
| 3   | 1/2" Union                     | 2    |
| 4   | 1/2" Tee                       | 1    |
| 6   | 1/2" x Close Nipple            | 2    |

**Tyco Fire & Building Products**

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