

## IRRIGATION

### RAF - Diaphragm control valve

RAF, a new concept of diaphragm hydraulic control valve consisting of three basic parts: body, cover and diaphragm.

The "no-spring" diaphragm valve ensures even distribution of pressure on the sealing area, prevents diaphragm deformation and provides longer service life. The valve contains minimum number of moving parts and requires practically no maintenance.

The patented rib-style diaphragm has several advantages. Opening and closing is gradual and eliminates risk of water hammer, vibration and noise.

It provides accurate and perfect pressure regulation at low flow-rates.

Full valve opening is obtained at a very low pressure.

Diameter: DN25 - DN400

Working pressure: PN10-PN16

Standard: DIN / ANSI / BS



### RAF-P - Diaphragm Control Valve in nylon

RAF-P consists of three basic parts: body, cover and diaphragm.

Entirely manufactured from durable plastic materials, the RAF-P valve offers the best corrosion resistance available in plastic technology with the stream lined, low friction hydraulic performance of the RAF metal valves.

The "no-spring" diaphragm enables gradual and precise opening and closing of the valve, ideal for regulation purposes, making it totally maintenance free.

Diameter: DN40- DN100

Working pressure: PN10

Standard: DIN / ANSI / BS



### RMI - Water Meter

Designed for irrigation application to avoid damage due to solid debris such as stones, weed, etc. Removable and interchangeable measuring unit for maintenance purpose.

Dry type - magnetic coupling register.

Very low head loss.

Working pressure: PN16

Standard: ISO / ANSI / BS



## WATERWORKS

### G - Globe pattern, piston actuated control valve

The G type is a familiar and durable design, piston actuated control valve for high pressures and extreme cavitation conditions.

"Wetted parts" are made of stainless steel and bronze.

G valves have Internal coating in enamel/epoxy paint.

Proven experience and reputation for over 50 years of use.

Diameter: DN50 - DN900

Working Pressure: PN10 - PN64

Standard: DIN / ANSI / BS



### RAY - "Y" pattern, double chamber diaphragm control valve

RAY is a high performance hydraulic control valve. The valve has a double-chamber, rubber and fabric diaphragm actuating a guided globe plug.

This new design consists of one universal throttling plug in each size to suite all applications needs. Designed to provide low friction loss yet prevents water surge. It is the valve of choice for water distribution and industrial use.

Here again simplicity and perfection came into one.

Diameter: DN50 - DN300

Working Pressure: PN10 - PN16

Standard: DIN / ANSI / BS



### RAF - Diaphragm control valve

RAF valves are used for general water supply and irrigation.

The RAF valves are made of only three parts, each one is made of durable materials.

The inner flow passages are streamlined and coated with low-friction materials.

This provides quiet flow in both directions, low head-loss and minimal wear.

RAF valves operate with a patented reinforced diaphragm, which eliminates the need for a retaining metal spring.

The special elastic design enables gradual and precise opening or closing of the valves.

By eliminating a metal spring, the RAF is virtually maintenance free.

Diameter: DN25 - DN400

Working Pressure: PN10 - PN16

Standard: DIN / ANSI / BS

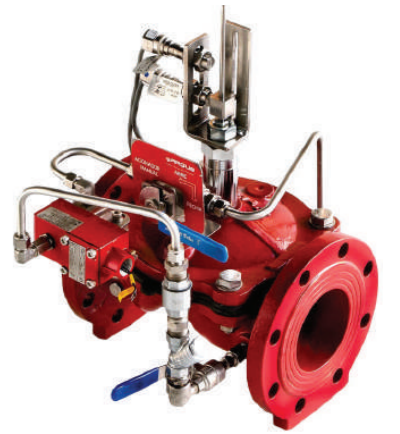


## INDUSTRIAL FIRE PROTECTION & SPECIAL MATERIALS

### FDV-R control valve

TALIS model FDV-R Fire Protection valves are elastomeric diaphragm type, open fail-safe streamlined globe & angle pattern valves, featuring direct resilient diaphragm seal, with no wet spring or metallic moving parts inside the valve body. FDV-R valves are used for fixed fire suppression systems, water, foam and seawater based flow control, in manual or remote on-off & pressure control applications.

FDV-R valves operate with a patented reinforced diaphragm, which eliminates the need for a compensating metal spring. The special elastic design enables gradual and precise opening or drip tight smooth closing of the valve without vibration, preventing water hammer. FDV-R automatic control valves are designed for installation, optionally in either the vertical or horizontal position.



### Special materials

Only three parts: body, diaphragm & cover plate, no wet metal spring inside the control chamber. Full bore unobstructed.

Simple automatic or manual reset of FDV-R valve to standby Position without draining or opening the valve itself, neither closing OS&Y or other valves in the system.

250 psi (17 bar) seal test 25.5 bar to DIN3230 ANSI FCI 70-2 CLASS VI Bubble-Tight.

Low maintenance cost, the valve is serviced in-line, only one replaceable part, the long-life elastomeric diaphragm.

Conforms with Fire testing to ISO-6182:5 Rev. 2011.

Conforms with Inspection, Testing, and Maintenance Std. of water-based Fire Protection Systems, NFPA 25.



### Characteristics

FDV-R hydro-dynamic pattern design ensures high flowrates with minimum head loss. Elastomeric direct seal diaphragm actuator, is the only moving wet part of the FDV-R control chamber.

Open fail-safe valve maintained in stand-by closed position. The valve trips open automatically upon release of water pressure from its control chamber, opening gradually and gently to prevent water hammer. Opening speed of FDV-R valves can be controlled.

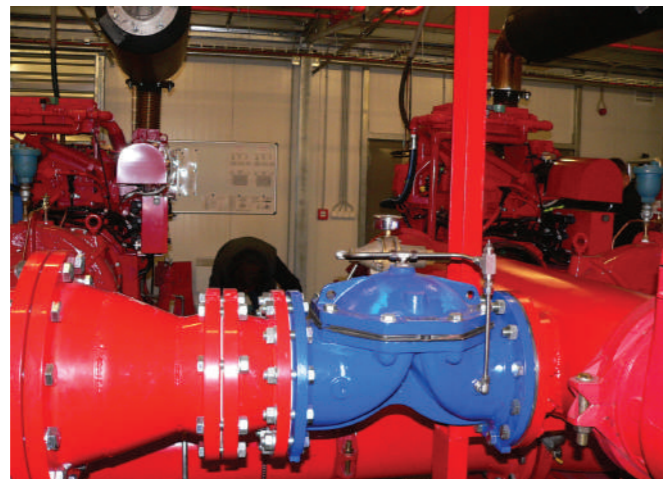
Soft closing upon pressurization of FDV-R control chamber, by line pressure or other independent water source, prevents surges. Closing speed of FDV-R valves can be controlled.

FDV-R resets to stand-by close position by pressurizing its control chamber with system water. All FDV-R valves are designed and built for on/off and modulating applications.



**RAPHAEL Valves Industries Ltd**, a TALIS company, founded in 1949, is the first Israeli manufacturer of quality control valves. Since then, RAPHAEL is leading the Israeli and international market valve industry with its wide and innovative product range. Located in a new modern facility, RAPHAEL'S product range includes hydraulic control valves, butterfly valves, gate valves, check valves and other products. Various coating technologies including epoxy, Rilsan (Nylon 11), enamel, give

the ability to supply high quality protection for special applications. RAPHAEL'S R&D department constantly strives to introduce new and innovative products and solutions for water control systems including waterworks, sewage, irrigation, and industry specific needs. All products are subject ISO 9001-2008 quality control and pass strict pressure tests in the company's testing plant during manufacture and assembly.



At RAPHAEL we believe simplicity is the key to a quality product. We strive to deliver an efficient solution that will assure your peace of mind and meet your expectations.

## Ultraf<sup>PRO</sup> Hydraulic control valve with high performance Ultrasonic water meter All in one compact case.

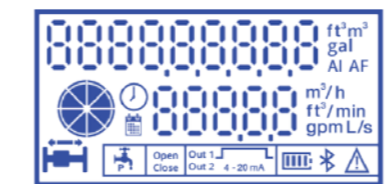
- Flow measuring unit and hydraulic valve combined
- No damage due to debris, no wearing parts – always accurate
- Battery powered, 10 years no maintenance, measuring unit
- Simple maintenance & installation, no straight pipe upstream & downstream needed
- Accuracy according to ISO 4064 (2005) standard
- Multi measurement worldwide system (Gallons, M<sup>3</sup>/h, ft<sup>3</sup> etc.)
- Bluetooth® communication with RAPHAEL controller smartphone application for measuring units preference selection and controller setting
- Separate volume pulls output and external card for 4-20mA continues volume output
- 16 bar pressure rating
- Available in all flange standard, from 50mm to 200mm
- All metal, water resistant unit according to IP68

### Digital LCD for multi system information:

- Flow rate
- Total flow
- Flow direction
- Batteries' power st
- Pipe "full of water" indication
- Bluetooth® communication
- Expansion optional cards connection status etc.

### Additional options:

- Open collector output for remote irrigation controller and open collector output for latch type operating
- Analog output (4-20mA type)
- Serial connection (Future mode)
- RF/GPRS remote system (Future mode)



# RAPHAEL Valves

## METERING



## FIRE PROTECTION



## IRRIGATION



## WATERWORKS

