

**ENERGY INFRASTRUCTURE Ltd.**  
**Eshel Terminal**

**Fire Pump Control & Check Valve**  
**(FPCV)**

(Version #001)

P <sup>0</sup>	14/1/24	Preliminary	E. Kaganowski	E. Kaganowski	
<b>REV</b>	<b>DATE</b>	<b>DESCRIPTION</b>	<b>BY</b>	<b>CKD</b>	<b>APPROVED</b>

## **Diaphragm Control Valves**

This document covers the technical requirements for manufacture, assembly; testing, supply and delivery of Fire Pump Control and Check Valve (FPCV) to be operated in Energy Infrastructure at Eshel Terminal

### **SITE CONDITIONS:**

1. The valves shall be installed indoor.
2. Site altitude is about 200 m' above sea level.
3. Ambient temperature varies between 0<sup>o</sup>C- 48<sup>o</sup>C.
4. Relative humidity varies between 45% - 85%.
5. Rain falls around 250 mm' / year.

### **TECHNICAL REQUIREMENTS:**

#### **Standards:**

The unit shall be UL listed, manufactured, tested and delivered in accordance with the requirements of UL demands for the installation purposes.

#### **Engineer Specification:**

##### **General Requirements:**

The valve is an elastomeric hydraulically operated, self-actuated non-return fire pump Pressure Control Valve meeting the NFPA 20 standard.

The valve shall be fitted with rigged type diaphragm. The diaphragm shall be fully supported at all area. The diaphragm shall be reinforced by a metal insert suitable for the fluid application.

The unit shall be used for controlling the flow and pressure at the pump discharge as well as actuating as non return check valve.

The valves shall be supplied as an assembly with pre-assembled trim and accessories as specified here later.

#### **Materials**

Body:	Ductile Iron ASTM A-536.
Cover:	Ductile Iron ASTM A-536.
Main valve internals:	Stainless Steel 304 & Cast iron.
Control Trim:	Brass.
Tubing and fitting:	Stainless Steel 316.

Elastomers: NBR  
 Coating: Electrical Powder polyester (Red)

Connection Standard:  
 Flange: ANSI #150 RF.

Pressure settings:  
 Pressure regulating pilots can be readjust on site.  
 Factory pressure setting: 200 psi

Fitting Option:  
 Glycerin Pressure Gauge Assembly at upstream and downstream made of stainless steel.  
 Valve Control Indicator fitted with limit switch

### **TAG AND MARKING:**

The unit shall bear name plate made of stainless steel.  
 The plate thickness shall be 1.5 mm'.  
 The plate shall contain the following data:

- Manufacturer name.
- Manufacturer country.
- Equipment model.
- Manufacturer item number.
- Size.
- Pressure set parameters.
- All other parameters according to UL demand.

### **QUANTITY TABLE:**

Item	Size	Quant.	Description.	Total price
1	12"	Acc.' BOM	FPCV	