# HAZARDOUS LOCATION UALUES



**Note:** This valve also available as an operator. Refer to following page.

# Series 20 >> Model E21

## Hazardous Location — 2-Way Normally Open Valve

Peter Paul explosion proof valves are used where fire or explosion hazards exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers. Hazardous Location valves are recommended, or in some cases compulsory, where a high level of protection from explosion is required.

- Heavy duty and made of stainless steel.
- · A real workhorse with proven performance.
- It has the greatest amount of options available of all the valves.
- Wide range of orifice sizes from 1/32" to 1/8".

#### **OPERATING CONDITIONS**

**Media:** Air, water, and other fluids compatible with standard Buna seals. Hot water, steam gasoline, and many oils require special seal materials. (Series 20 pressure ratings may change due to the viscosity of the liquid.)\*

**Valve Temperature Range:** Standard Valves -  $0^{\circ}$ F (- $18^{\circ}$ C) to  $104^{\circ}$ F ( $40^{\circ}$ C) ambient;  $0^{\circ}$ F (- $18^{\circ}$ C) to  $150^{\circ}$ F ( $65^{\circ}$ C) media. Optional Valves - can tolerate much higher or much lower ambient and media temperatures.\*

Maximum Operating Pressure Differentials: See table on proceeding page.

Burst Pressure: 5000 PSI

Leakage: Bubble tight for standard valves.

Vacuum: To 5 Microns\*

## **ELECTRICAL CHARACTERISTICS**

**Coil Voltage:** 6 to 825V AC 60 HZ. and 5 to 720V AC 50 HZ. — 1.8 to 265V DC

Nominal Power: AC - 7.3 Watts DC - 9.5 Watts

Coil Construction: Molded Class F with third wire ground (Std.), Class H or Potted (Opt.)

Typical Response Time on Air: 4 - 16 Milliseconds

Operating Speed: Up to 600 CPM

**Duty Cycle:** Continuous

### MECHANICAL CHARACTERISTICS

Body: Stainless Steel (Std.)

Internal Components: Stainless Steel

Elastomers: Nitrile (Buna) (Std.). Many other elastomers available.\*

Orifice Diameter: See table on proceeding page.

Porting: 1/8" and 1/4" NPT (others ports available).

Housing: Flame-Proof construction with 1/2" NPT conduit

Listings: Valves are UL listed and CSA certified for Hazardous Locations — Class I, Div 1, Group C and D - Class II, Div 1,

Group E, F, and G; Div 2, Groups A, B, C, D, E, F, and G.

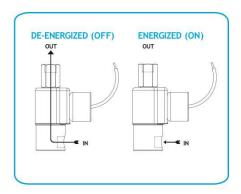
Life Expectancy: Millions of cycles, depending on application, lubrication, etc.

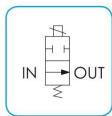
Valve Weight: 1.50 lbs

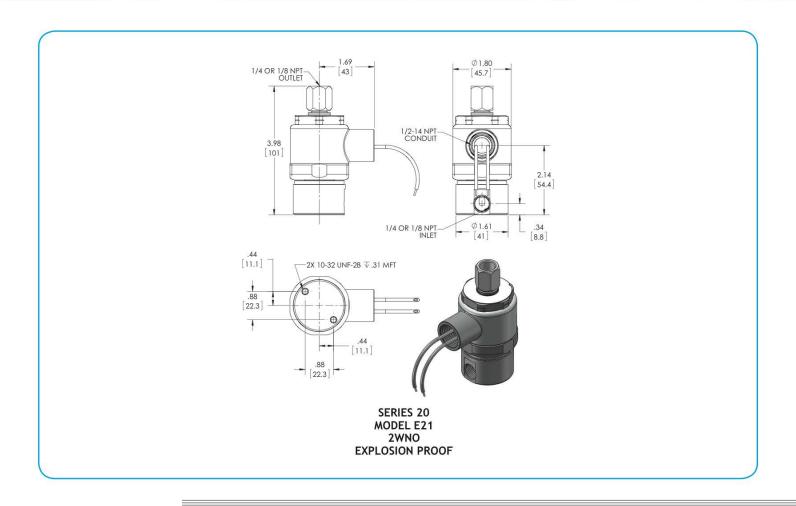
Repair Kits: See table on proceeding page.

Options: Alternate Port Locations, Metering, Manual Override, Alternate Elastomers\*

\* Consult representative or factory for options and specifications.







### **VALVE SPECIFICATIONS**

MAX. OPER. PRESS. DIFF.+		ORIFICE SIZE	CV FACTOR	VALVE NUMBER		
AC	DC	N.O.	N.O.	1/8 NPT PORTS	1/4 NPT PORTS	
400 (700)*	400 (700)*	1/32	.024	E21G7XCCM	E21G9ZCCM	
235 (500)	235 (500)	3/64	.053	E21H7XCCM	E21H9ZCCM	
150 (350)	150 (350)	1/16	.095	E21J7XCCM	E21J9ZCCM	
100 (150)	100 (150)	3/32	.156	E21K7XCCM	E21K9ZCCM	
35 (40)	35(40)	1/8	.227	E21N7XCCM ^	E21N9ZCCM ^	

- ^ VALVES WITH 1/8 ORIFICE ARE NOT UL OR CSA LISTED
- \* FKM seals not recommended for pressure ratings above 500 PSI
- + Ratings in brackets are optional extended ratings; consult factory.

## **ORDERING INFORMATION:**

WHEN ORDERING VALVES OR REPAIR PACKS ADD VOLTAGE AND FREQUENCY TO COMPLETE VALVE NUMBER. EXAMPLES: VALVE (E21K9ZCCM 120/60) REPAIR PACK (2KE21K AC)

WHEN ORDERING OPERATORS ADD THE LETTER "O" TO THE FRONT OF THE VALVE NUMBER, REPLACE BODY PORT NUMBER WITH THE LETTER "D": EXAMPLE: OPERATOR (OE21K9DCCM 120/60)