



OPERATORS

for potentially explosive atmospheres
II 2G Ex mb IIC T6..T3 Gb /
II 2D Ex mb IIIC T85°C..T200°C Db, IP67
encapsulated enclosure with integrated cable

Series
PV
(EMXX)

FEATURES

- Explosionproof operator, intended for use in potentially explosive atmospheres according to Directive ATEX 2014/34/EU
- EC type examination certificate (BAS 98 ATEX 2168 X) and IECEx certificate (IECEx SIR 06.0109X) are in compliance with the International and European Standards EN-IEC 60079-0 and EN-IEC 60079-18
- Easy electrical installation by means of the moulded-in supply cable, standard length 2 meters
- A thermal fuse is fitted in the coil winding and any excessive heating due to prolonged over-voltage or a locked core will cause the thermal fuse to operate
- Ingress protection degree (IP67)
- A wide range of valves can be supplied with the operator

CONSTRUCTION

Solenoid enclosure
Core, tube, springs & plugnut
Shading coil
Nameplate
Connection

EMXX
Epoxy encapsulated
Stainless Steel
Copper or Silver
Polyester
Integral 3 core tube

ELECTRICAL CHARACTERISTICS

Standard voltages:

DC (=): 24V - 48V
AC (~): 24V - 48V - 115V - 230V / 50 Hz
(Other voltages and 60 Hz on request)

SAFETY CODE

II 2G Ex mb IIC T6 to T3 Gb (gas)
II 2D Ex mb IIIC 85°C to 200°C Db IP67 (dust)

TEMPERATURE CLASSIFICATION TABLES

The minimum allowable ambient temperature is -40°C for the operator.
Select the requested "T" classification from the temperature classification tables (AC or DC), respecting the maximum ambient temperature and cold (20°C) electrical holding power values.

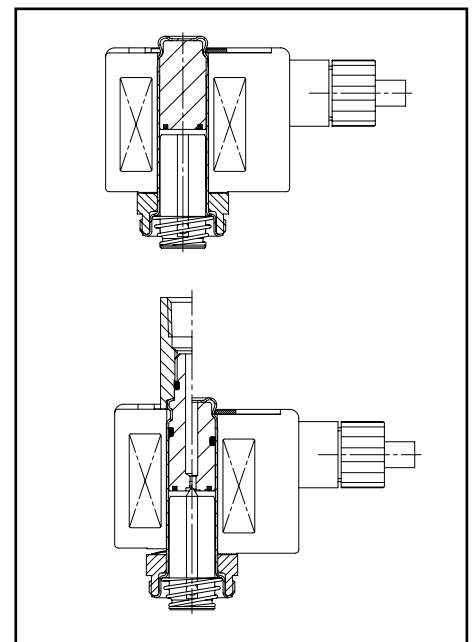
AC (~) Solenoids

power level (watt)	insulation class	maximum ambient ⁽¹⁾ temp. "T" classification			
		T6 (G) 85°C (D)	T5 (G) 100°C (D)	T4 (G) 135°C (D)	T3 (G) 200°C (D)
Reduced power (RP)					
4,05	F	-	-	-	65°C
Basic power (BP)					
10,5	F	-	-	-	65°C

DC (=) Solenoids

power level (watt)	insulation class	maximum ambient ⁽¹⁾ temp. "T" classification			
		T6 (G) 85°C (D)	T5 (G) 100°C (D)	T4 (G) 135°C (D)	T3 (G) 200°C (D)
Low power (LP)					
1,7	F	65°C	-	-	-
Basic power (BP)					
11,2	F	-	-	65°C	70°C
19,7	F	-	-	40°C	70°C

⁽¹⁾ Make sure that the selected ambient temperature does not exceed the allowable valve temperature characteristics as specified on the appropriate valve catalogue sheets



POWER LEVELS - cold electrical holding values (watt)



THORNE & DERRICK
INTERNATIONAL

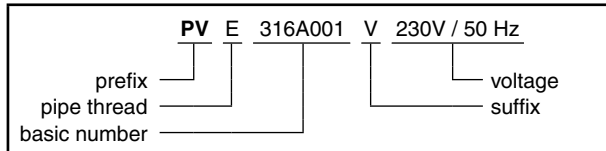
Thorne & Derrick
+44 (0) 191 490 1547
www.heatingandprocess.com

PREFIX TABLE

prefix							description		power level			
1	2	3	4	5	6	7			LP	RP	MP	BP
P	V						Encapsulated epoxy moulded (EN/IEC 60079-18)*		●	●	-	●
						X	Other special constructions		●	●	-	●

- Available feature
- Not available
- * ATEX solenoids are also approved according to EN 13463-1 (non electrical valves)

ORDERING EXAMPLES VALVES:



PRODUCT SELECTION GUIDE

(The selection can only be made in conjunction with the appropriate valve catalogue sheet)

STEP 1

Select basic valve catalogue number, including pipe thread identification letter from one of the specification tables on the separate catalogue pages.

Example: E316A001

STEP 2

Select voltage. Refer to standard voltages on page 1.

Example: 230V / 50Hz

STEP 3

Select solenoid prefix (combination). Refer to the prefix table on this page and respect the indicated power level, cold electrical holding values and "T" classification mentioned on page 1.

NOTE: Make sure that the ambient temperature does not exceed the allowable valve temperature characteristics.

Example:

PV

65°C ambient

Basic Power (BP) 10.5W

II 2G Ex mb IIC T3 Gb

II 2D Ex mb IIC T200°C Db

STEP 4

Final catalogue / ordering number.

Example:

PV E316A001 230V / 50 Hz

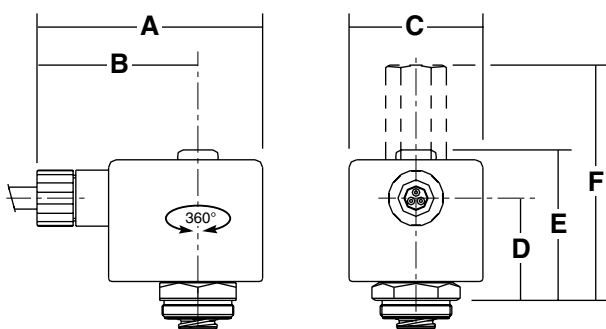
ADDITIONAL OPTIONS

- Various lead lengths from 1 meter up to 10 meters

INSTALLATION

- Multi language installation/maintenance instructions are included with each valve
- The solenoid operators can be mounted in any position without affecting operation (with the exception of manual reset versions)
- The operator can be rotated 360° to select the most favourable position for cable entry
- The solenoid shall be protected by a fuse capable of interrupting the prospective short circuit current

DIMENSIONS (mm), WEIGHT (kg)



type	A	B	C	D	E	F	weight
PV-MXX	75	53,5	44,5	33,6	49,4	77,3	0,348