PENTAIR MECAIR 3FD12V SERIES

FACTOCOMPONENTS
INDUSTRIAL SUPPLIES AND MANUFACTURING EQUIPMENT

DESCRIPTION

MECAIR 3FD12V pilot valve enclosure series is an extremely robust and durable pilot enclosure range, able to withstand the toughest and harshest industrial conditions. This pilot enclosure has been designed with hazardous areas in mind and meets the stringent requirements as demanded of several standards including CE, CSA, ATEX & IECEx (see certification section for more details), making this product a superior solution for almost all hazardous area applications. The enclosure can be optioned with electronic expansion cards, compatible and recommended to be used with the PGT & ECS range of controller products. This solution optimises large plant installations, giving efficiency gains through reduced wiring and a reduction in installation time.

FEATURES

- Wide operating temperature range –40°C to +70/80°C (–40°F to +158/176°F) (see Ta for more detail).
- Conforms to CE, CSA (C & US), ATEX & IECEx (see certification section for more details).
- Compatible with the PGT & ECS controller range of expansion cards, allowing optimal product performance and benefits.
- Enclosure can accommodate up to two electronic cards.

TECHNICAL CHARACTERISTICS & PERFORMANCE

THREADS	Pilot Valve Ports		Cable/Conduit Entry		
	RC ¼″ (BSP) or ¼″ NPT		M25x1.5 Pitch ISO or ¾″ NPT		
PILOT VALVES	0–12 valves can be installed in an enclosure.				
ELECTRICAL PULSE TIMES	Solenoid coil "on-time":		50 to 500 milliseconds		
	Minimum solenoid coil "off-time":		1 minute		
	One solenoid pulsing at a time, no solenoid connected in parallel inside enclosure.				
OPERATING PRESSURE RANGE	Maximum operating pressure		860 kPa (125 psi)		
	Minimum operating pressure		30 kPa (5 psi)		
PROCESS GAS	–40°C to +70/80°C (–40°F to +158/176°F) (see Ta for more detail)				
AMBIENT TEMPERATURE RANGE	See Ta for more detail				
HEATER VOLTAGE OPTIONS	220/240 V AC	200 W	Heater cannot be supplied with enclosure with E-coat.		
	110/120 V AC	200 W			
	24 V DC	100 W			
HEATER OPERATION	The heater is operated by thermostat between 10±5°C and 27±3°C (50±9°F and 80±6°F).				
SOLENOID COIL PERFORMANCE	**NOMINAL**	**VOLTAGE & FREQUENCY**	**INRUSH CURRENT**	**HOLD CURRENT**	**POWER**
	200/240 V 25 W	240 V 60 Hz	143 mA	94 mA	22.6 VA
		220 V 50 Hz	148 mA	105 mA	23.1 VA
	100/120 V 22 W	120 V 60 Hz	255 mA	164 mA	19.7 VA
		110 V 50 Hz	263 mA	180 mA	19.8 VA
	24 V 19 W	24 V 50 Hz	1338 mA	963 mA	23.1 VA
		24 V 60 Hz	1096 mA	716 mA	17.2 VA
	240 V DC	240 V DC	94 mA	94 mA	24 W
	110 V DC	110 V DC	212 mA	212 mA	24 W
	48 V DC	48 V DC	429 mA	429 mA	20 W
	24 V DC	24 V DC	873 mA	873 mA	20 W

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CERTIFICATIONS

ATEX & IECEx		CAN/US
II 2 G 2813 Sira 19ATEX1122X IECEx SIR 19.0035X Without heater IP66 Ex db IIC T5 Gb Ta: –40°C to +80°C Ex db IIC T6 Gb Ta: –40°C to +70°C With heater IP66 Ex db IIC T3 Gb Ta: –40°C to +80°C	II 2 D 2813 Sira 19ATEX1122X IECEx SIR 19.0035X Without heater IP66 Ex tb IIIC T85°C Db Ta: –40°C to +80°C Ex tb IIIC T75°C Db Ta: –40°C to +70°C With heater IP66 Ex tb IIIC T180°C Db Ta: –40°C to +80°C	US CSA Certificate CSA 19CA70186670X Without heater IP66 AEx db IIC T5 Gb AEx tb IIIC T85°C Db Ta: –40°C to +80°C AEx db IIC T6 Gb AEx tb IIIC T75°C Db Ta: –40°C to +70°C With heater IP66 AEx db IIC T3 Gb AEx tb IIIC T180°C Db Ta: –40°C to +80°C

ORDERING CODES

3 FD 12V 12 – 1 1 0 E – 356

Pilot Valve
3FD12 Pilot valve

Ex Protection
FD for Flame & Dust proof

Enclosure Size
12 Valve Maximum

No. of Active Pilots
00-12

Thread Type
0=1/4″ NPT pilot valves & 2 × 3/4″ NPT cable entries
1=1/4″ Rc pilot valves & 2 × M25 cable entries
3=1/4″ NPT pilot valves & 2 × M25 cable entries

Card Combination
0=No card
1=1 × 12 way PSCX-DCDC12 expansion card (24V DC)
2=2 × 12 way PSCX-DCDC12 expansion cards (24V DC)
3=1 × 12 way ECX-DCDC12 expansion card (24V DC)
4=2 × 12 way ECX-DCDC12 expansion cards (24V DC)
5=1 × 12 way ECX-ACAC12 expansion card (100–240V AC)
6=2 × 12 way ECX-ACAC12 expansion cards (100–240V AC)
7=1 × PSCX-DCDC12 expansion card + 1 × Hub (24V DC)
9=1 × Hub (24V DC)

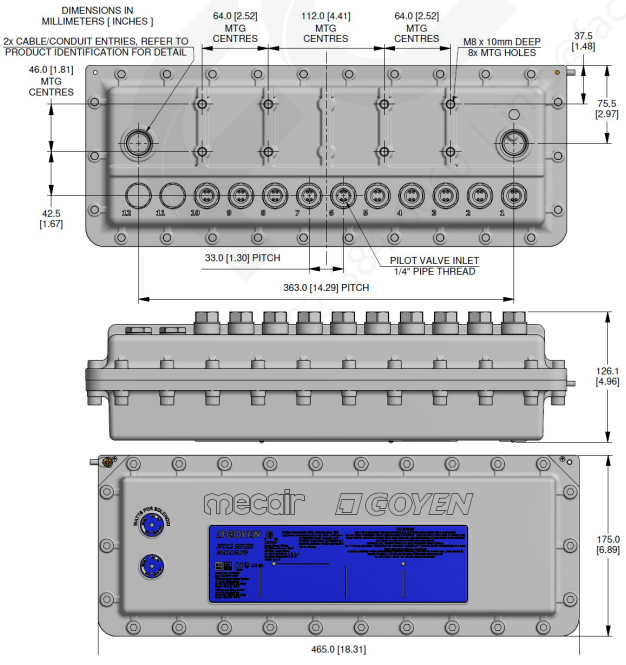
Q2 Coil
350=200/240V AC
351=100/120V AC
352=24V AC
353=240V DC
354=110V DC
355=48V DC
356=24V DC

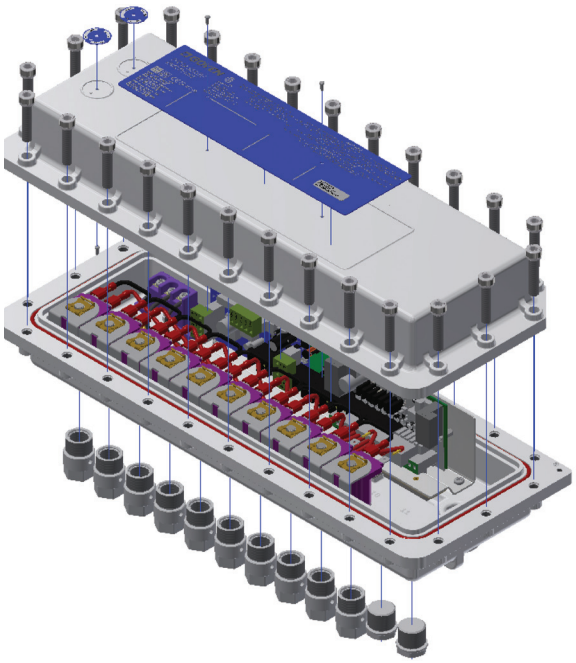
Surface Coating
Blank=None
E=E-Coat
N=Electroless Nickel Plated
P=Paint Coat

Heater Voltage
0=None
5=24V DC
6=100/120V AC
7=200/240V AC

*Some special requirements may not be covered in the product codes above; consult manufacturer for more detail.

DIMENSIONS





Mecair 3FD12V Rev02 08-22

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