

## DESCRIPTION

The GOYEN|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  $-40^{\circ}\text{C}$  to  $+70/80^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $+158/176^{\circ}\text{F}$ ) (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

<b>THREADS</b>	Pilot Valve Ports		Cable/Conduit Entry			
	RC $\frac{1}{4}$ " (BSP) or $\frac{1}{4}$ " NPT		M25x1.5 Pitch ISO or $\frac{3}{4}$ " NPT			
<b>PILOT VALVES</b>	0–12 valves can be installed in an enclosure.					
<b>ELECTRICAL PULSE TIMES</b>	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.					
<b>OPERATING PRESSURE RANGE</b>	Maximum operating pressure		860 kPa (125 psi)			
	Minimum operating pressure		30 kPa (5 psi)			
<b>PROCESS GAS</b>	$-40^{\circ}\text{C}$ to $+70/80^{\circ}\text{C}$ ( $-40^{\circ}\text{F}$ to $+158/176^{\circ}\text{F}$ ) (see Ta for more detail)					
<b>AMBIENT TEMPERATURE RANGE</b>	See Ta for more detail					
<b>HEATER VOLTAGE OPTIONS</b>	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				
<b>HEATER OPERATION</b>	The heater is operated by thermostat between $10\pm 5^{\circ}\text{C}$ and $27\pm 3^{\circ}\text{C}$ ( $50\pm 9^{\circ}\text{F}$ and $80\pm 6^{\circ}\text{F}$ ).					
<b>SOLENOID COIL PERFORMANCE</b>	200/240 V 25 W	NOMINAL	VOLTAGE & FREQUENCY	INRUSH CURRENT	HOLD CURRENT	POWER
			240 V 60 Hz	143 mA	94 mA	22.6 VA
	100/120 V 22 W		220 V 50 Hz	148 mA	105 mA	23.1 VA
			120 V 60 Hz	255 mA	164 mA	19.7 VA
	24 V 19 W		110 V 50 Hz	263 mA	180 mA	19.8 VA
			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	

ATEX & IECEx CAN/US

**CE** **Ex** 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

**CE** **Ex** 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

**CSA** **SP** **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**

<p><b>Pilot Valve</b> 3FD12 Pilot valve</p> <p><b>Ex Protection</b> FD for Flame &amp; Dust proof</p> <p><b>Enclosure Size</b> 12 Valve Maximum</p> <p><b>No. of Active Pilots</b> 00-12</p> <p><b>Thread Type</b> 0=1/4" NPT pilot valves &amp; 2 x 3/4" NPT cable entries 1=1/4" Rc pilot valves &amp; 2 x M25 cable entries 3=1/4" NPT pilot valves &amp; 2 x M25 cable entries</p> <p><b>Card Combination</b> 0=No card 1=1 x 12 way PSCX-DCDC12 expansion card (24V DC) 2=2 x 12 way PSCX-DCDC12 expansion cards (24V DC) 3=1 x 12 way ECX-DCDC12 expansion card (24V DC) 4=2 x 12 way ECX-DCDC12 expansion cards (24V DC) 5=1 x 12 way ECX-ACAC12 expansion card (100-240V AC) 6=2 x 12 way ECX-ACAC12 expansion cards (100-240V AC) 7=1 x PSCX-DCDC12 expansion card + 1 x Hub (24V DC) 9=1 x Hub (24V DC)</p>	<p><b>Q2 Coil</b> 350=200/240V AC 351=100/120V AC 352=24V AC 353=240V DC 354=110V DC 355=48V DC 356=24V DC</p> <p><b>Surface Coating</b> Blank=None E=E-Coat N=Electroless Nickel Plated P=Paint Coat</p> <p><b>Heater Voltage</b> 0=None 5=24V DC 6=100/120V AC 7=200/240V AC</p>
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\*Some special requirements may not be covered in the product codes above; consult manufacturer for more detail.

**DIMENSIONS**

