



Pilot valve enclosures suitable for use in hazardous certified environments. These enclosures are designed and tested to contain an explosion.

3-6VFP Flame Proof Enclosure

Diecast aluminium enclosure with flame proof (Ex-d) protection suitable for use in hazardous areas, available optionally with anti-condensation heater.

These enclosures are designed and tested to contain an explosion. The main hazard is a potentially explosive gas/air mixture that may exist within the enclosure. This enclosure contains the explosion and quenches the flame. Flame path width and gaps to the exterior are designed to cool the burning gases to prevent the ignition of the surrounding atmosphere. This protection concept is sometimes referred to as Ex-d.

Suitable for

NEC500 Division 1, NEC505 Zone 1 hazardous environments, for piloting Goyen diaphragm valves.

Construction

- Body:** Al 2011-T3
- Pilot body:** Al 2011-T3
- Ferrule:** AISI 302 SS
- Armature:** 430FR SS
- Seals:** Nitrile
- Screws:** AISI 302 SS
- Clips:** Plated mild steel

Maintenance

Annual maintenance of serviceable parts is recommended. Serviceable items are the pilot armature, armature spring, pilot valve o-ring. The same model Goyen coil may also replace damaged coils. All other items are non-serviceable. Goyen recommend that appropriately qualified personnel conduct all maintenance activities. Certification of maintenance staff and facilities may be required under some certification schemes. Inappropriate service invalidates the product certifications.



Operation

- Recommended on time:** 50 - 150ms
- On time range:** 50 - 500ms
- Recommended time between pulses:** 1 minute or more, if maximum on time is used.

Pilot Performance

- Flow:** 0.27 Kv/0.32 Cv
- Maximum Working Pressure:** 860 kPa/125 psi
- Minimum Working Pressure:** 0 kPa/0 psi
- Minimum Temperature:** -40°C/-40°F
- Maximum Temperature:** 82°C/-180°F
- Fluid Media:** Air or inert gas

Restrictions

This product's hazardous areas certifications are valid only for product that has not been modified since leaving the factory. Modifications made to the enclosure such as the fitment of additional gaskets, the addition or removal of pilot valves and coils, changes in markings, or physical modifications made to the enclosure itself will invalidate the product certifications. Only activities described in 'Installation' and 'Maintenance' may be conducted without affecting the certification of the product.

Installation

WARNING: Ensure that power is isolated from the system prior to installing or opening this product. Where a heater kit is installed, ensure that the heater has been de-energised for a minimum of 5 minutes prior to opening the enclosure. Ensure that the enclosure is properly assembled with all flange screws fully tightened (minimum 10Nm (7.4 ft.lbs)) prior to applying power in a hazardous area.

Mounting

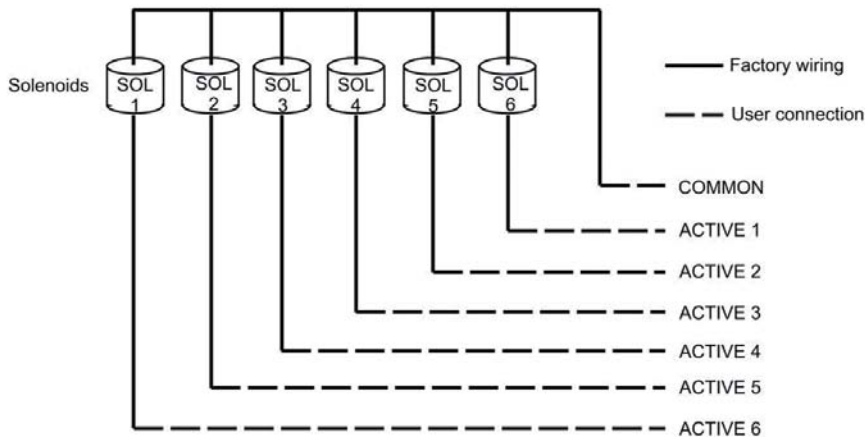
Enclosures should be mounted in a horizontal position, where the pilot valves and solenoid assemblies are in the preferred vertical orientation.

Threads

Pilot valve inlet and exhaust outlets are offered in both 1/8" BSPP (Rp) and NPT. The enclosure base has one conduit entry with either M25 or 3/4" NPT thread.

Electrical connections

Refer to diagram below. The included Goyen QT2 solenoids are provided with screw/spade terminals. These solenoids are neutrally linked at the factory for customer convenience.



Pneumatic connections

These pilot valves are connected to the dust collector reverse pulse jet valves using metric 4mm tubing (ID 0.157") or imperial 1/4" tubing (ID 0.162") and maximum length of 1.5m (4.9 ft).

Solenoid Performance

Voltage	Inrush Current mA	Hold Current mA	Power
220/240 50/60 Hz	148/143	105/94	23.1 VA
100/120 50/60 Hz	234/255	180/152	19.8 VA
24 VDC	873	873	20 W

3-6VFP Product Certifications and Markings

UL

With heater kit fitted	Without heater kit fitted
Listed 823N	Listed 823N
Class 1	Class 1
Group D	Group D
Nema 7	Nema 7
Op. Temp Code T3	Op. Temp Code T6

CSA

With heater kit fitted	Without heater kit fitted
LR26709	LR26709
Class 1	Class 1
Group D	Group D
Nema 7	Nema 7
Temp Code T2C	Temp Code T4

SAA

With heater kit fitted	Without heater kit fitted
Ex d IIB	Ex d IIB
T3 IP65	T5 IP65
Aus Ex 1220X	Aus Ex 1220X

Product warning labels

UL

WARNING to prevent ignition of hazardous atmospheres disconnect all supply of circuits before opening enclosure. keep tightly closed when in operation.

CSA

CAUTION: open circuit before removing cover

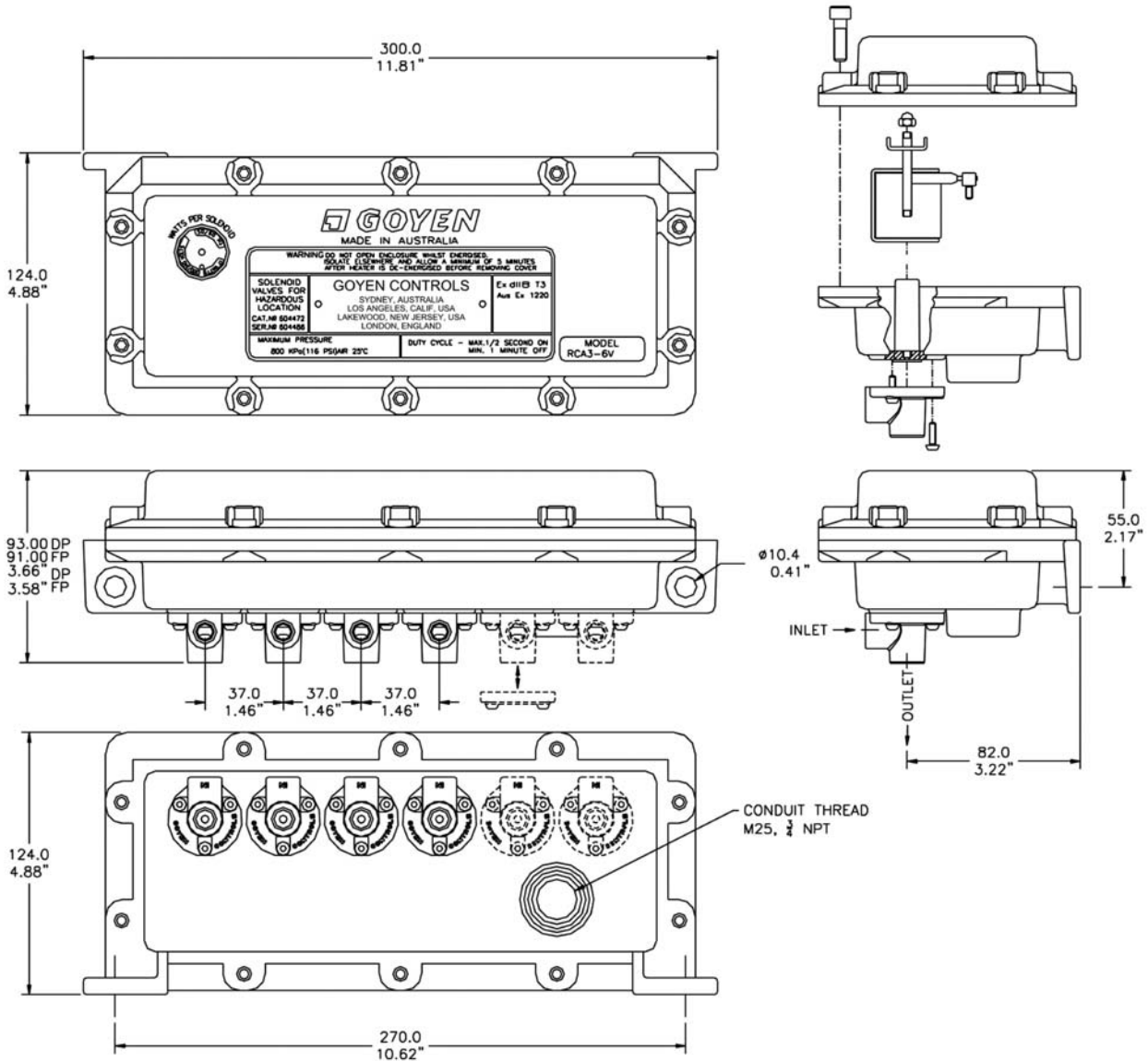
SAA (enclosures with heaters)

WARNING: do not open enclosure whilst energised. isolate elsewhere and allow a minimum of 5 minutes after heater is de-energised before removing cover.

SAA (enclosures without heaters)

WARNING: do not open enclosure whilst energised. isolate elsewhere before removing cover.

Dimensions (in mm (inches))



Weight

Mass = 2.21 Kg + 0.08 Kg per fitted pilot
(4.87 lbs + 0.18 lbs per fitted pilot)