

TECHNICAL SPECIFICATION

Explosion Proof Solenoid Enclosure – CXD



Product Description



Product Variations



Features



Construction



Dimensional Details



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Electrical Connections



Pneumatic Connections



How to Order



PRODUCT DESCRIPTION

The CXD explosionproof solenoid casing is designed for those applications where the atmosphere may present the possibility of combustion. The CXD is both explosion proof and waterproof with EEx d IIB T5 and IP67 protection rating. This ensures that any spark, resulting from the electric activation of the solenoid, will be restricted within the interior of the case, according to CENELEC EN 50014-50018 and NEMA 4x, 7, 9 protection ratings. The CXD explosionproof casings are CENELEC certified N° EX-93.C.118.

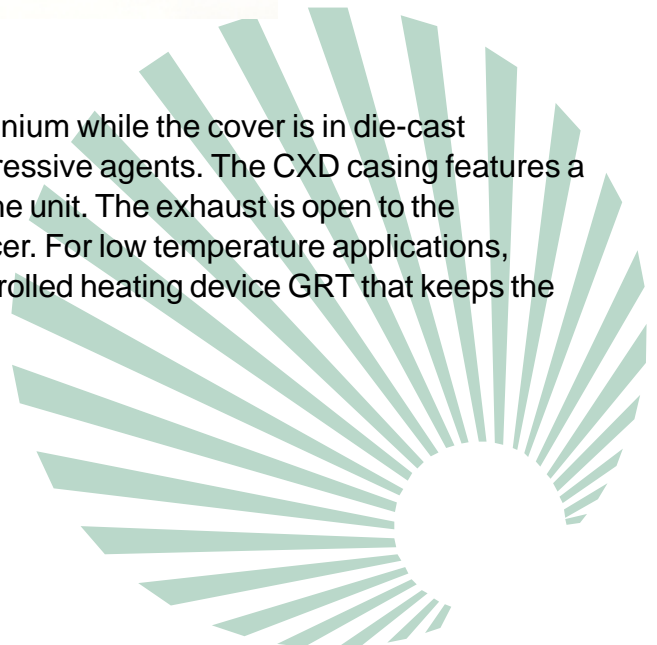
The CXD Series is available in two models:

- CXD 1-2-3-4: from 1 to 4 solenoid pilots,
- CXD 5-6-7-8: from 5 to 8 solenoid pilots.

Each solenoid pilot, energised in sequence, commands a corresponding VEM type diaphragm valve, by way of a 6 mm. external diameter pneumatic tube being less than 2 metres in length. The control consists in releasing the compressed air of the upper chamber of the valve and its piping. The CXD casings are complete with fixing brackets. All common terminals are pre-wired.



The CXD solenoid base are made of extruded aluminium while the cover is in die-cast aluminium both anodised for protection against aggressive agents. The CXD casing features a common exhaust duct, located on the underside of the unit. The exhaust is open to the atmosphere and can be piped or muted with a silencer. For low temperature applications, enclosures are available with a thermostatically controlled heating device GRT that keeps the internal temperature at +4°C.



PRODUCT VARIATIONS

The GRT is available in two models:

- GRT 70: for CXD 1-2-3-4,
- GRT 120: for CXD 5-6-7-8.



FEATURES

General Features

Operating temperature -20°C/+60°C

Weight CXD 3: 5kg
CXD 8: 8.5kg

Electrical Features

Coil insulation Class H
Electrical connection 3/4" CONIC GAS
Electrical protection EEx d HB T5 and IP67
Voltage and frequency AC 50/60 Hz: 24/110/220 V
DC: 24/110 V

Pneumatic connections To VEM valves
3/4" female gas
Common exhaust No.2 connections 3/8" female gas

Please note: 1 1/2" VEM valves connected to solenoid enclosure always have to be with double diaphragm.



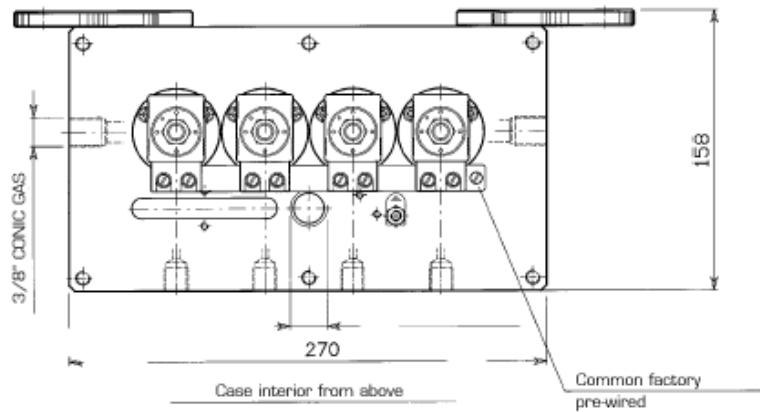
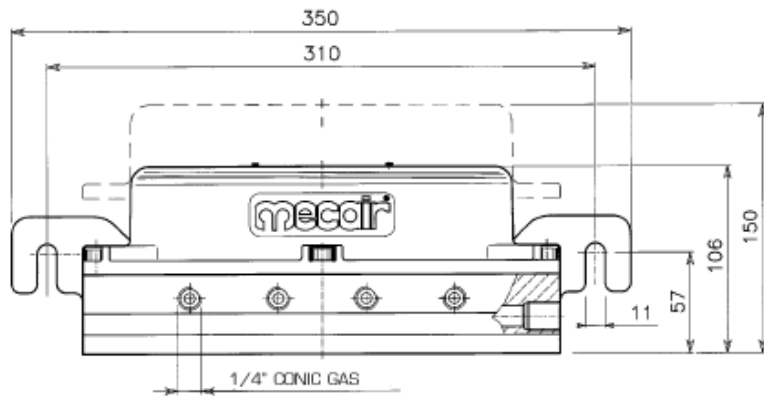
CONSTRUCTION

Cover	Die-cast aluminium
Base	Extruded aluminium
Pilot	Stainless steel
Gaskets	NBR

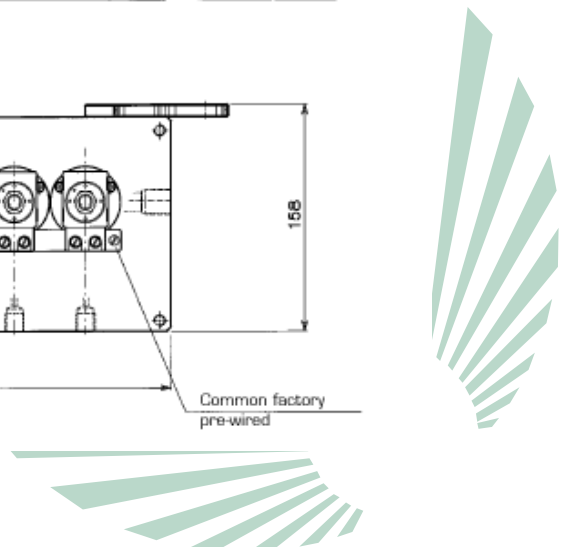
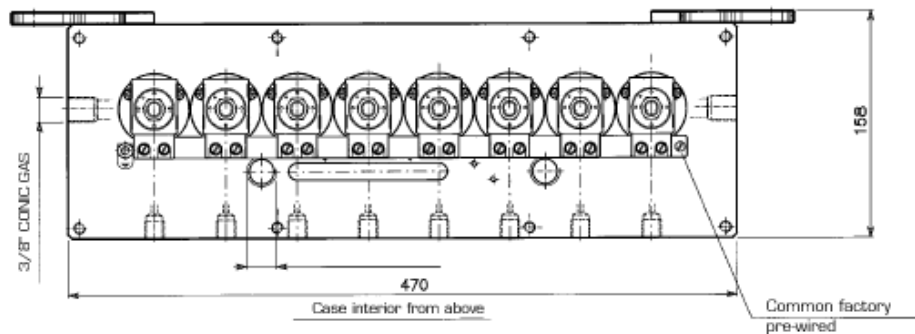
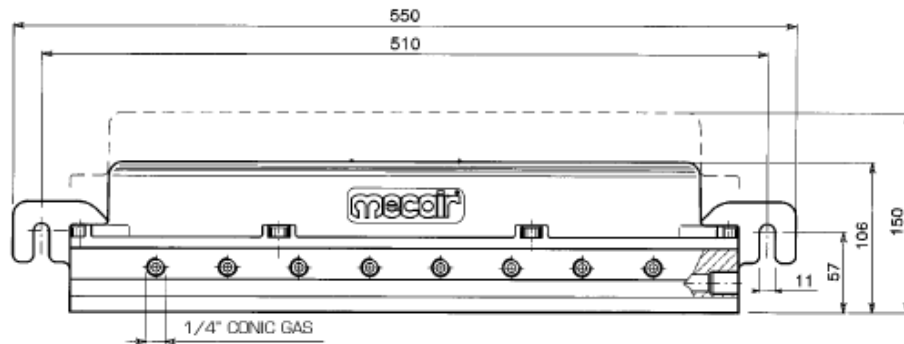


DIMENSIONAL DETAILS

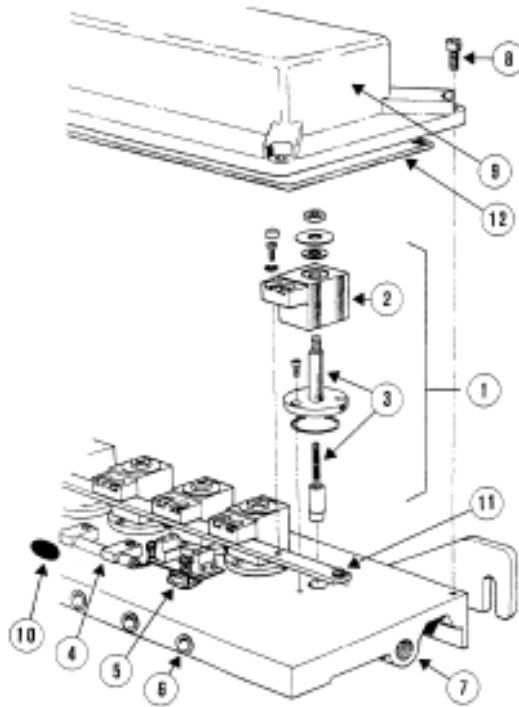
CXD 4



CXD 8



SPARE PARTS



CXD4 - CXD8

Pos.	Part Description	Code
1	Pilot group complete with coil	ELA2 - .../...(*)
2	Coil (*)	SA2 - .../... (*)
3	Plunger with spring	ECL 28 X
4	Heater + thermostat for CXD 1-2-3-4	GRT 70 220V
5	Heater + thermostat for CXD 5-6-7-8	GRT 120 220V

* Specify voltage, frequency (or DC).

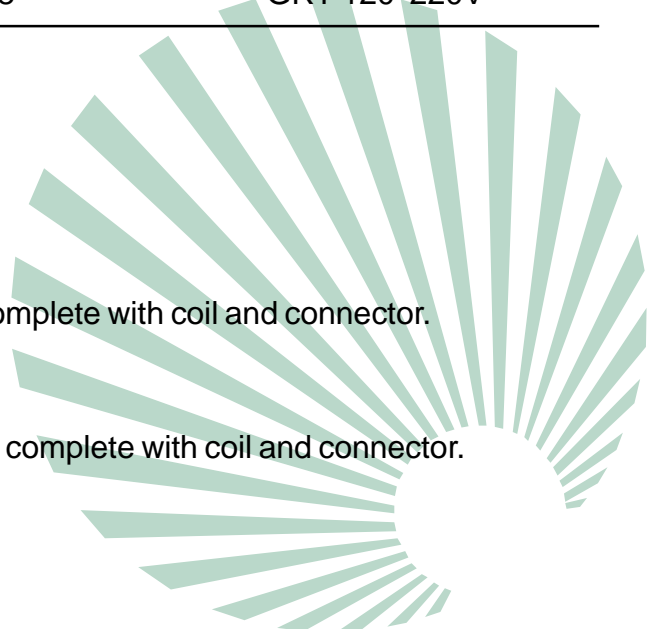
Recommended Spare Parts

For start up:

> 5% of supply (minimum 1 piece): pilot group (1), complete with coil and connector.

For first 2 years of service:

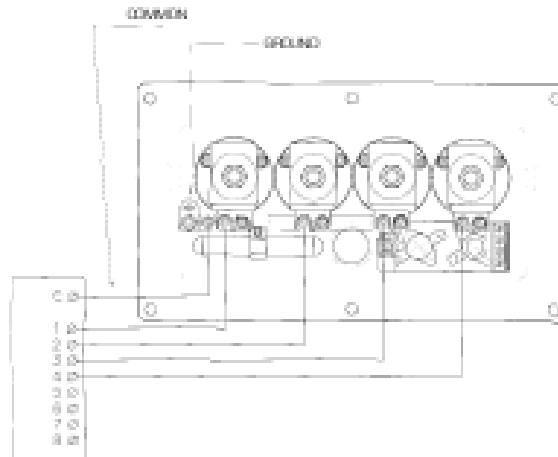
> 10% of supply (minimum 2 pieces): pilot group (1), complete with coil and connector.



ELECTRICAL CONNECTIONS

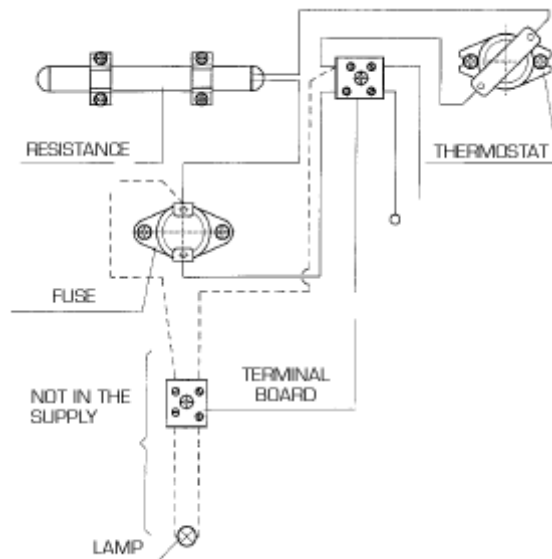
- A Unscrew the screws (8) and remove cover (9).
- B Connect electric wires as shown (E1) on following sheet.
Cable entry (10) 3/8" gas conic.
Use multipolar cable: 1 wire to common pre-wired (11). +1 wire to each coil.
- C Connect heater thermostat (optional), see (E2) on following sheet.
- D Reassemble the cover (9) make sure of correct position of gasket (12).

E1 - Sequencer

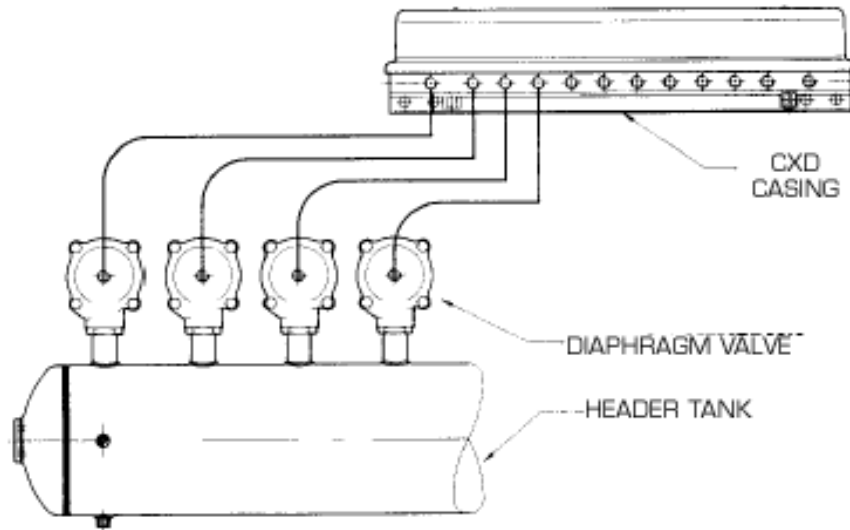


E2 - Thermostatically Controlled Resistance

GRT 70, 70W, for CXD 1-2-3-4
GRT 120, 120W for CXD 5-6-7 °



PNEUMATIC CONNECTIONS



Assembling and Connection

Pneumatic Connections 1/4" Gas - Valve connection with:

- Tube \varnothing 6-8mm - Copper or stainless steel
- Max length - 2 metres
- Fluid: Compressed air (or nitrogen) dried, filtered and oil free.

Min/max pressure 0.5-7.5 bar (when exceeded 7.5 bar the valve automatically opens for safety reasons).

Exhaust Connections

- Connection 3/8" gas:
 - Open to atmosphere
 - Or muted with silicone
 - Or piped to an external tank for nitrogen recovery



HOW TO ORDER

CXD 5 – V/... – R

CXD – Explosionproof casing

5 – Number of solenoid pilots
 CXD 1-2-3-4 (small enclosure)
 CSN 5-6-7-8 (large enclosure)

V – Coil Voltage/Frequency

Nominal values	Operating range
24/50	24V/50Hz
24/60	24V/60Hz
24/DC	24 V/alternate current
110/DC	110V/direct current
110/50	110-127V/50Hz
110/60	110-127V/60Hz
220/50	220-240V/50Hz
220/60	220-240V/60Hz

R – R = electric resistance group with thremostat.
 Available in two versions

GRT70 = 70 WATT (for CSN 1-2-3-4)

GRT120 = 120 WATT (for CSN 5-6-7-8)

