



GOYEN MECAIR ECS/ECX SERIES

ECS CONTROL SYSTEM

DESCRIPTION

The ECS Control System is an intelligent controller developed to provide flexible solutions for economical filter life by minimising the costs associated with maintaining and operating modern dust filtration systems. The integrated dP transducer allows the controller to determine exactly when filters require cleaning. This feature ensures the filters are cleaned only when necessary, dramatically extending filter life and lowering emissions, while significantly reducing compressed air use.

The ECS base board has 12 solenoid outputs on board. The addition of expansion cards, matched to the AC or DC output of the controller, increases this number to 360 outputs. The ECS may be ordered as the control board only or in an enclosure.

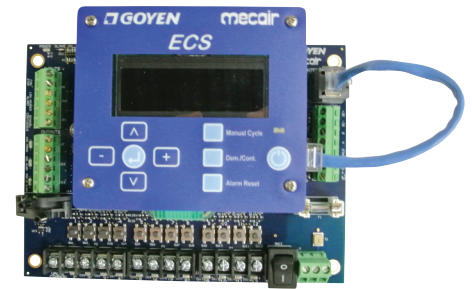
FEATURES

- High-performance, cost-minimising controller.
- Expansion cards extend the control up to 360 solenoid outputs.
- Quick Pulse Technology.
- ECS supports parallel pilot valve connection.
- Low temperature operation -40°C (-40°F).
- Automatic pilot valve detection.
- Voltage-free coil error output and a visual indication on the display showing which pilot valve output has an error, enabling quick fault finding and debugging.
- Conforms to the requirements of CE, FCC, RCM & ATEX (not applicable to ECS/ECX combination products, ECS polycarbonate products and ECX pilot enclosure products only).

TECHNICAL CHARACTERISTICS & PERFORMANCE

dP Support	0 to 4.5 kPa
Input Voltage	AC: 100-240V ±10% @ 50/60 Hz
Output Voltage	AC: 100-240V ±10% @ 50/60 Hz (same as input) DC: 24 V
Maximum Input Power	AC IN, AC OUT Model: 265 W AC IN, DC OUT Model: 75 W
Discrete Solenoid Outputs	12 outputs, expandable up to 360 via 12 output expansion cards
Enclosure	Polycarbonate, Stainless Steel or no enclosure
Humidity	20%-85% non-condensing
Maximum Altitude	2000 m (For higher, please consult manufacturer)
Protection Rating	Polycarbonate: NEMA 1, 3, 3S, 4, 4X, 6, 6P & 12, IP66 Stainless Steel: NEMA 4X, IP66
Operating Temperature	<u>Non ATEX approved products:</u> -40°C to +70°C (-40°F to +158°F) <u>Non ATEX approved ECS-ACDC12 with 3 DC pilot valves in parallel:</u> -20°C to +70°C (-4°F to +158°F) <u>ATEX approved enclosure products:</u> -20°C to +50°C (-4°F to +122°F)
ON & OFF Time	ON: 30 ms to 1000 ms, OFF: 1 s to 1000 s Note: Minimum OFF Time of 5 s is required in ATEX applications.
Inputs	Voltage Free: Fan Stop, Low Header, Demand/Continuous
Outputs	Voltage Free: Coil is Firing, Coil Alarm, High dP Analogue Output: 4-20 mA dP signal Controls up to 360 individual outputs. An ECS only AC output unit can have up to 10 pilot valves connected in parallel. An ECS only DC output unit can have up to 3 pilot valves connected in parallel. See Operating Temperature for more details.
Pollution Degree	For UL applications, product is suitable for 3 & 4. For pollution degree 4, regular maintenance is required to ensure product is maintaining safe operation.

This device may be connected from a 3A rated MCB or ELCB protected branch circuit.



ORDER CODE - ECS SEQUENCER

ECS - AC

Output Voltage
AC=AC V
(same as input)
DC=24 V DC

Outputs

12=12 outputs
24=24 outputs
36=36 outputs
48=48 outputs
60=60 outputs
72=72 outputs
84=84 outputs
96=96 outputs

Enclosure type

PCA=ATEX-approved polycarbonate enclosure
SS=Stainless Steel enclosure
Blank=No enclosure

ORDER CODE: ECX EXPANSION CARD

ECX -

Input Voltage
AC=AC V
DC=24 V DC

Output Voltage
AC=AC V
(same as input)
DC=DC V
(same as input)

12 -

DIN Mounted
E=DIN mounted
Blank=No mounting

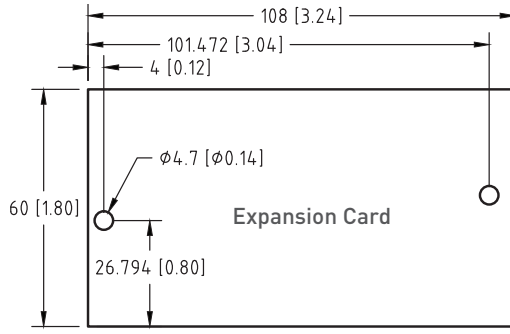
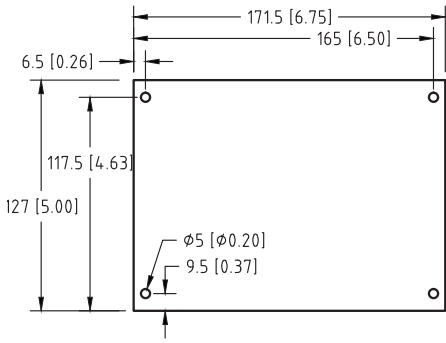
Number of Cards
1-5=Number of mounted cards
Blank=No mounting

ORDER CODE: ACCESSORIES

K-CPR-DIN (ECS DIN Mounting Kit)

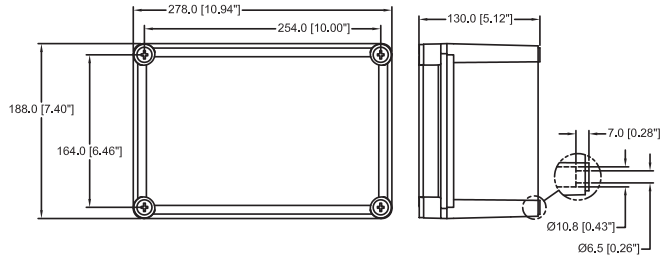
ECS units inside a polycarbonate enclosure have ATEX approval:



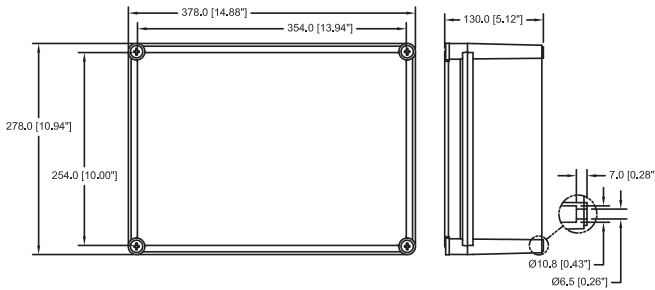


ENCLOSURE DIMENSIONS - mm [inch]

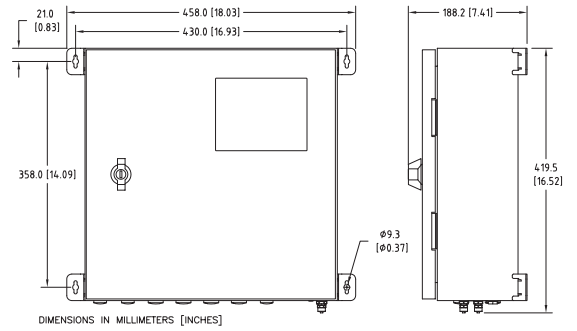
ECS Polycarbonate Enclosure



ECS/ECX Polycarbonate Enclosure

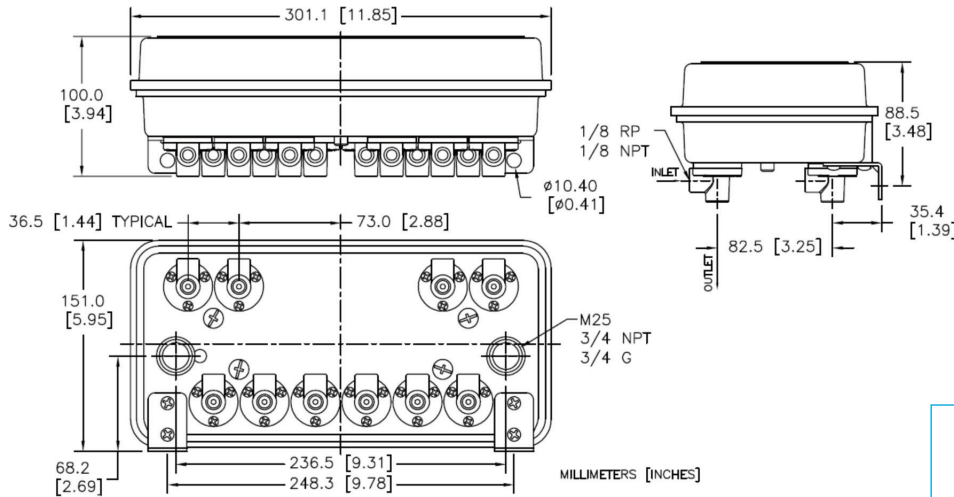


ECS/ECX Stainless Steel Enclosure



ECX INSIDE 3-12V PILOT ENCLOSURE

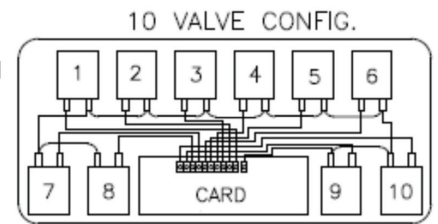
PILOT ENCLOSURE DIMENSIONS



TECHNICAL CHARACTERISTICS & PERFORMANCE

Enclosure	Aluminium
Protection Rating	NEMA 4X, IP66
Operating Temperature	Non ATEX approved products: -40°C to +70°C [-40°F to +158°F] ATEX approved product: -20°C to +50°C [-4°F to +122°F]

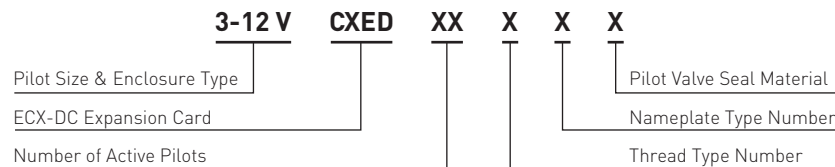
INTERNAL WIRING



SEAL MATERIAL

Material	Nitrile	Viton
Code	0	1

ORDERING CODES



NAMEPLATE

Nameplate Type	No Nameplate	Goyen
Code	0	1

NUMBER OF ACTIVE PILOTS

Code	06	07	08	09	10

ECS units inside a polycarbonate enclosure have ATEX approval:

CE Ex II 3 D Ex tc IIIC T42°C Dc IP66 Tamb: -20°C to +40°C



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THREAD TYPE

Conduit Thread	NPT	M	M	M	G	G
Pilot Thread	NPT	RP	RC	NPT	RP	RC
Code	0	1	N/A	3	4	N/A