

OPEN FRAME CONTROLLER
MODULAR PROPORTIONAL
REGULATOR



OPEN FRAME CONTROLLER FOR INDUSTRY 4.0



The new “Open Frame Controller” system is a platform for providing closed loop control of flow, pressure and position and is suitable for Industry 4.0 applications. The system is composed of two base modules: Master and Slave that individually may be combined following the application needs.

Base functions

Flow control by using pressure sensors

- The Master module used alone allows the creation of a two-way flow control valve in a closed loop configuration.
- The use of the Master-Slave combination allows the creation of a three-way flow control valve with the same performance.

Pressure control with pressure sensor

- The use of the Master- Slave combination allows pressure control.

Closed loop position control for pneumatic cylinders

- The use of the Master-Slave combination plus an external precision transducer enables position control.

System Solutions

All base functions may be combined to application solutions and communicate amongst each other via CANopen.

BENEFITS



Closed loop control of flow, pressure and position



Customised, turnkey solutions



Serial communication



Modular

Applications

The Open Frame Controller can be easily configured to meet specific application needs, to provide the most efficient, turnkey solutions, thus reducing assembly times and system complexity. The different Master and Slave modules can be combined and driven through simple serial communications, making the control of complex applications easier.

Typical applications could include the mixing of different gases, piloting different pressures in different parts of the machine, or the positioning of a pneumatic cylinder through a single control signal.



ANESTHESIA DEVICES

Control and mixing of gases on three channels and nebulisation on two channels, all integrated in one system, controlled in CANopen.



LASER CUTTING MACHINES

High precision pressure control to monitor the position of the laser reflection mirror.



BLOW MOULDING MACHINES

Precise flow control for blow moulding machines or plastic extrusion machines.

DRINKS DISPENSERS

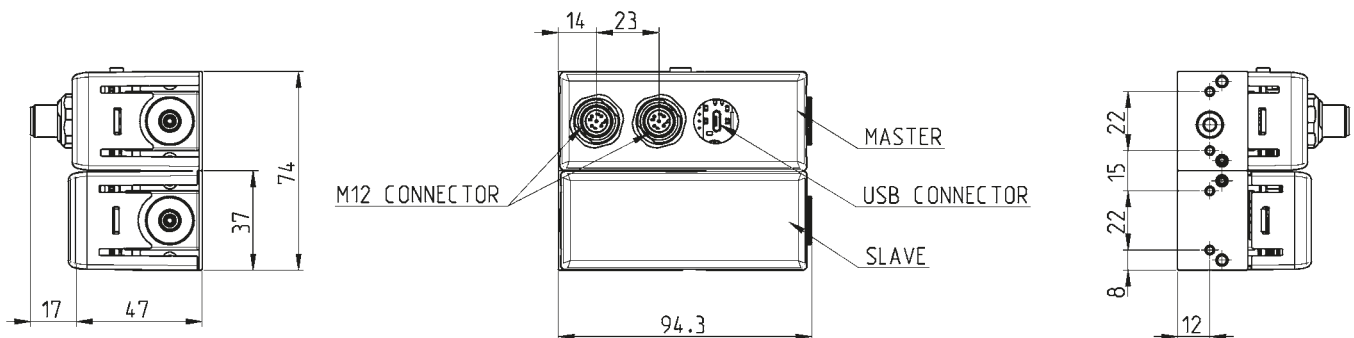
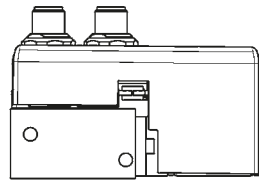
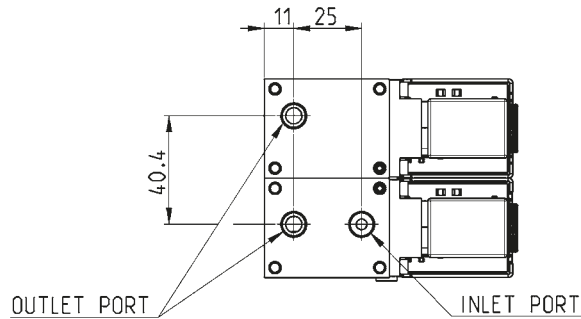
Combination of pressure control, fluid pumping and pressure control for carbon dioxide lines.



General data

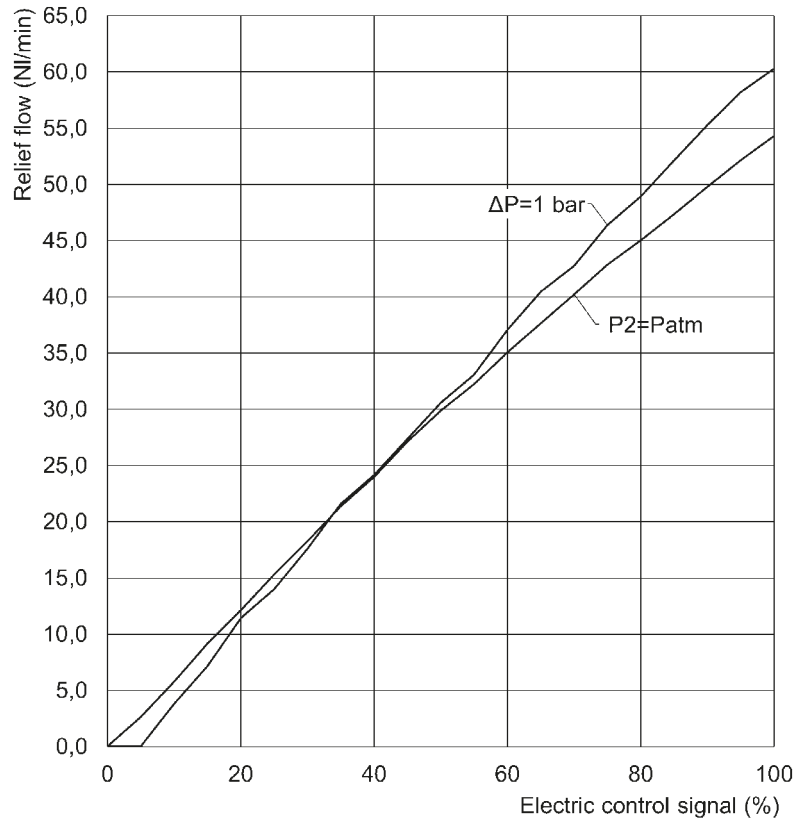
Media	compressed air, inert gases and oxygen. Filtering according to ISO 8573-1 class 7.4.4
Supply pressure	from -1 a 10 bar
Operating pressure	from -1 a 10 bar
Max flow	115 NL/min 200 NL/min with parallel valve
Seals	FKM, NBR, EPDM
Number of ways	2-vie 3-vie parallel
Supply voltage	24V DC +/-10%
Current absorbed	0,3 A (Master module) 0,3 A (Slave module)
Control interface	CANopen CiA 301 RS485 IO-Link (connection type B)
Analogical input	0-10 V o 4-20mA
Analogical output	0-10 V
MECHANICAL	
Size	LxWxH 38x47x94,3 mm
Weight	300 g
Ports	G1/8
ENVIRONMENT	
Environmental temperature	-5 + 60°C (with the dew point of the fluid lower than 2°C at the min. working temperature)
Protection class	IP20
OPERATION	
Resolution: pressure control	±0,1% FS
Resolution: flow control	±1% FS
Repeatability	±0,1% FS
PWM frequency	1 kHz

Dimensional characteristics

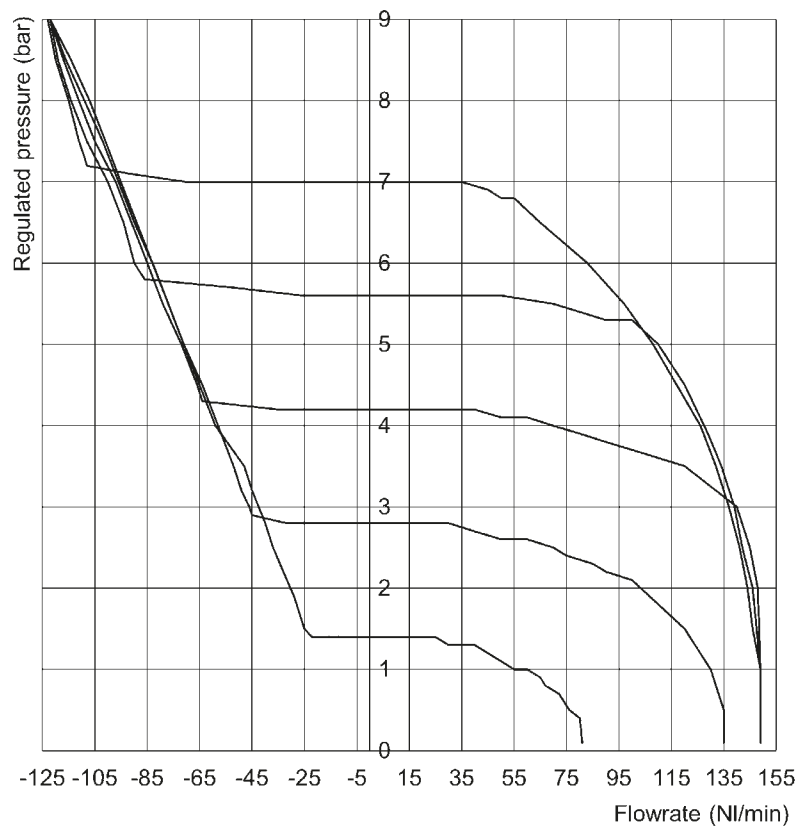


Flow diagrams

FLOW CONTROL



PRESSURE REGULATION



Contacts

Camozzi Automation S.p.A.

Società Unipersonale
Via Eritrea, 20/I
25126 Brescia
Italy
Tel. +39 030 37921
info@camozzi.com

Customer Service

Tel. +39 030 3792790
service@camozzi.com

Export Department

Tel. +39 030 3792255
sales@camozzi.com

