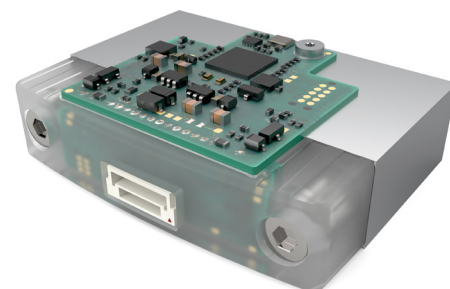


FAS CHIPREG EPC

Electronic Pressure Controller



- > Very compact size <14mm
- > For Life Science, Medical and Process Control applications
- > Ideal for pressure-driven flow control in microfluidic applications
- > 2 proportional valves system (inlet and exhaust)



Technical features

Controlled Pressure Range:

Range -1 ... 1 bar

Range 0 ... 4 bar

Range 0 ... 7 bar

Max. Inlet Pressure:

Range ± 1 bar: 5 bar

Range 0...4 bar: 5 bar

Range 0...7 bar: 8 bar

Operating gas:

Air, N₂, O₂, CO₂, Ar, He, H₂

Global accuracy at 20°C

 $\pm 0,3\%$ of full scale

Analog Setpoint:

0 ... 5V (5V/FS)

Analog Flow Out:

0 ... 5V (5V/FS)

Digital communication interface:

RS485

Gas temperature:

+10 ... +50°C (°50 ... +122°F)

Ambient temperature:

+10 ... +50°C (°50 ... +122°F)

Settling time:

<200 ms

Voltage Supply:

24 $\pm 10\%$

Current supply:

< 200 mA

Electrical connection:

JST Connector BM06B-GHS-TBT

Manifold dimensions:

See manifold drawing

Manifold materials:

Standard: Aluminium

Stainless Steel on request

Mounting:

Standard: Manifold mount

M5 Inline subbase optional,

other port types on request

Cleanliness:

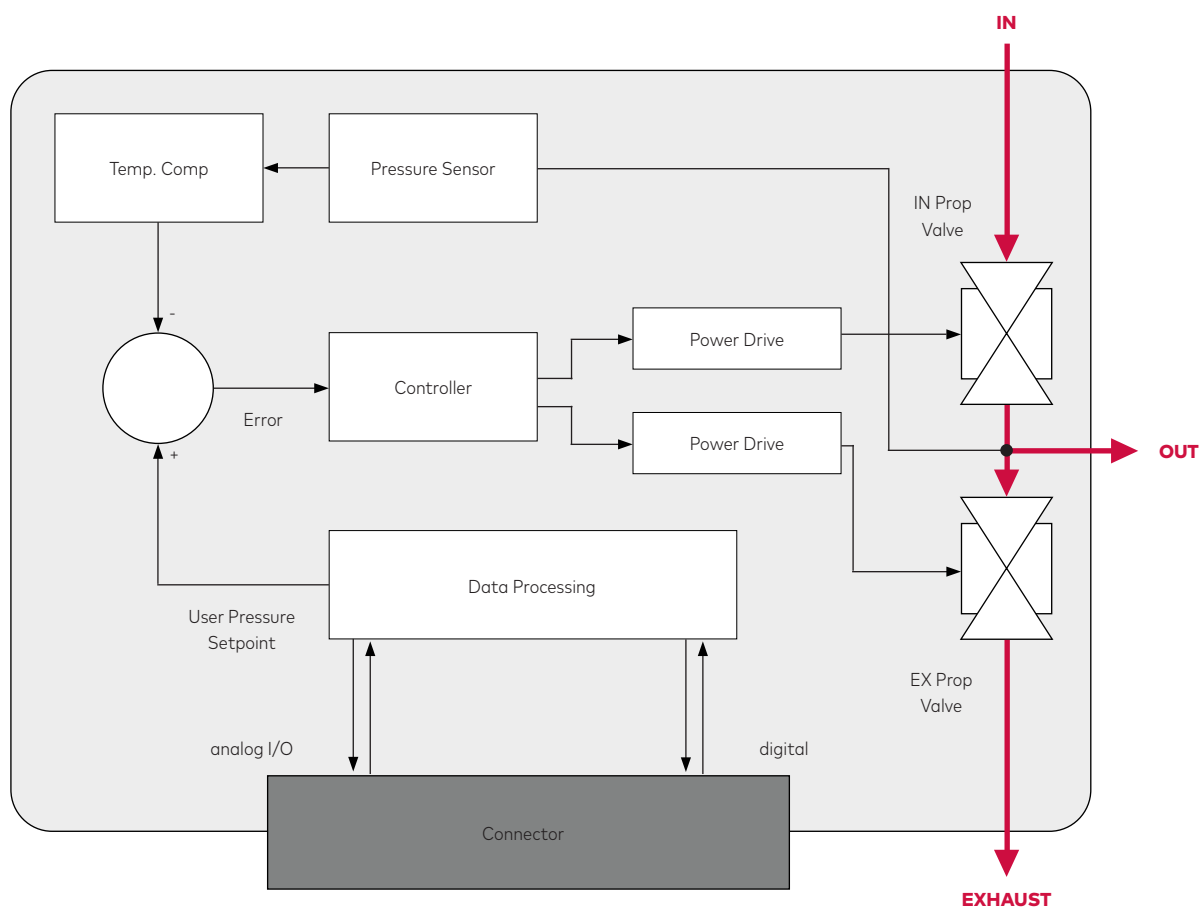
Standard: Medical,

Analytical clean option on request

Technical data - standard models

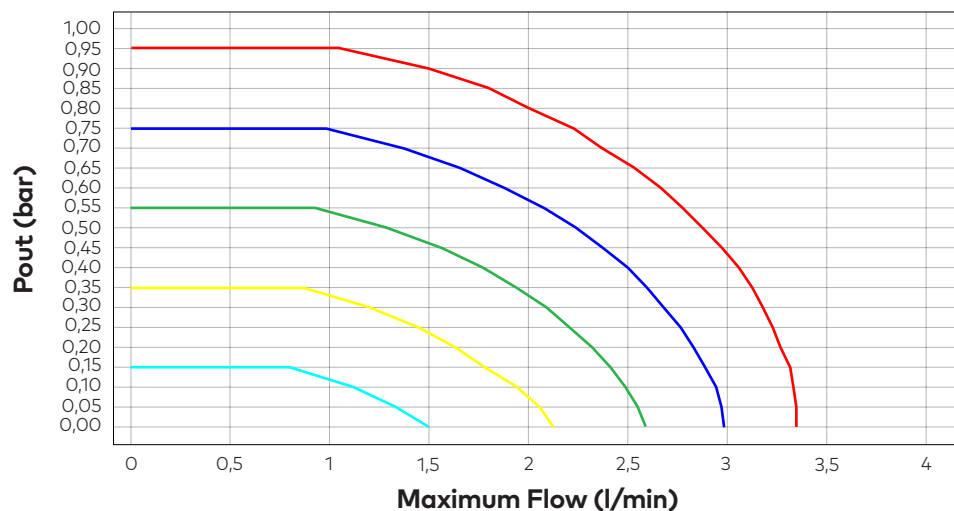
Orifice	Max. inlet pressure	Controlled Pressure	Flow Range	kv factor	Model
(mm)	(barg)	(barg)	(l/min)		
0,6	5	-1 to 1 bar	10	0,12	40E001ACJ1011 111****
0,6	5	0-4	10	0,12	40E0045CJ1011 111****
0,2	8	0-7	2,4	0,02	40E0075CJ1011 111****

Block diagram



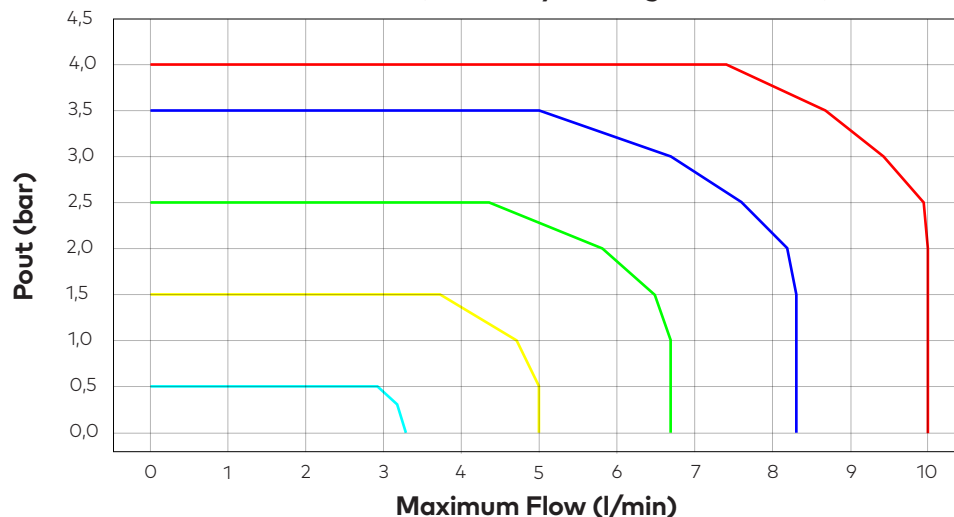
Flow / Pressure diagram

EPC 0...1 bar (air density = 1,21 kg/m³, T = 20°C)



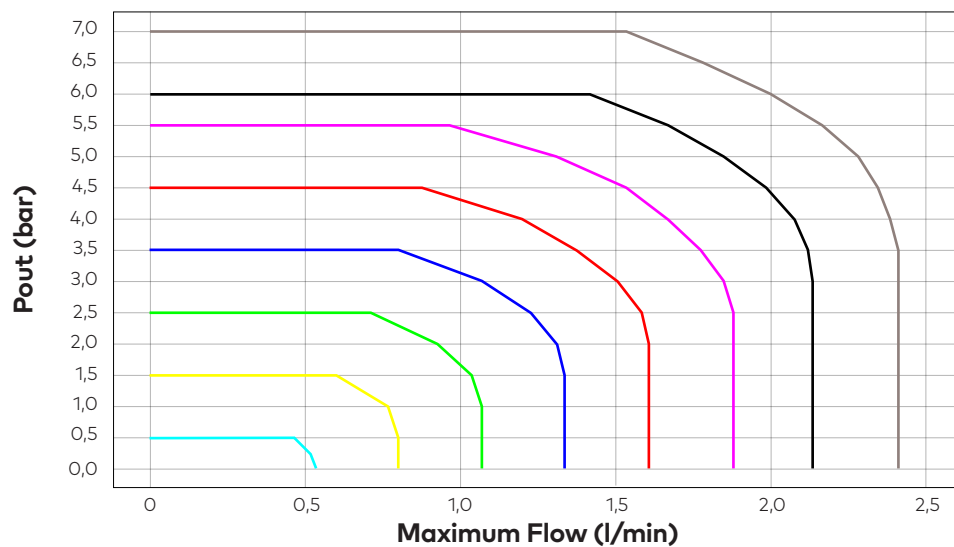
- Pin = 1 bar
- Pin = 0,8 bar
- Pin = 0,6 bar
- Pin = 0,4 bar
- Pin = 0,2 bar

EPC 0...4 bar (air density = 1,21 kg/m³, T = 20°C)



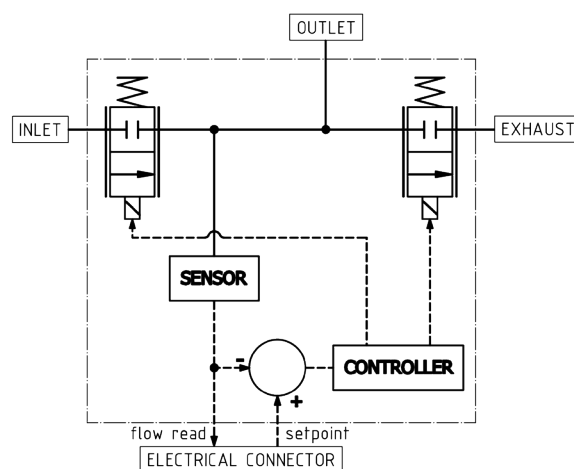
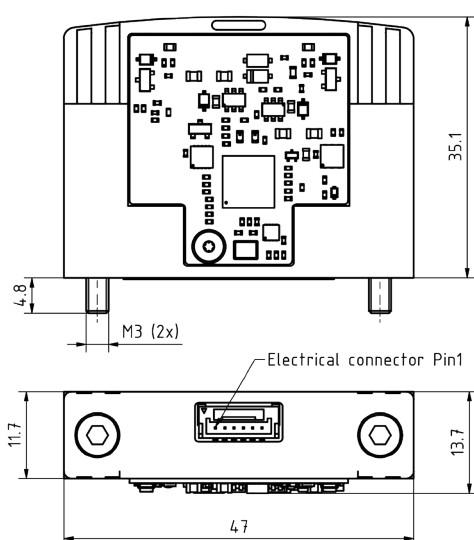
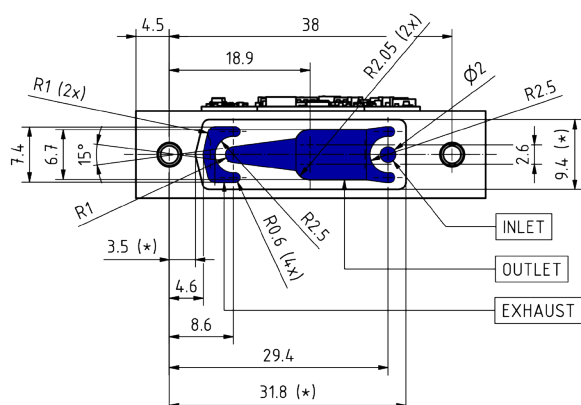
- Pin = 5 bar
- Pin = 4 bar
- Pin = 3 bar
- Pin = 2 bar
- Pin = 1 bar

EPC 0...7 bar (air density = 1,21 kg/m³, T = 20°C)

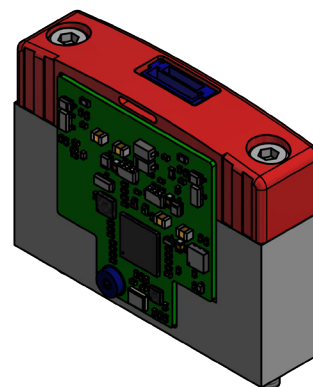


- Pin = 8 bar
- Pin = 7 bar
- Pin = 6 bar
- Pin = 5 bar
- Pin = 4 bar
- Pin = 3 bar
- Pin = 2 bar
- Pin = 1 bar

Drawing



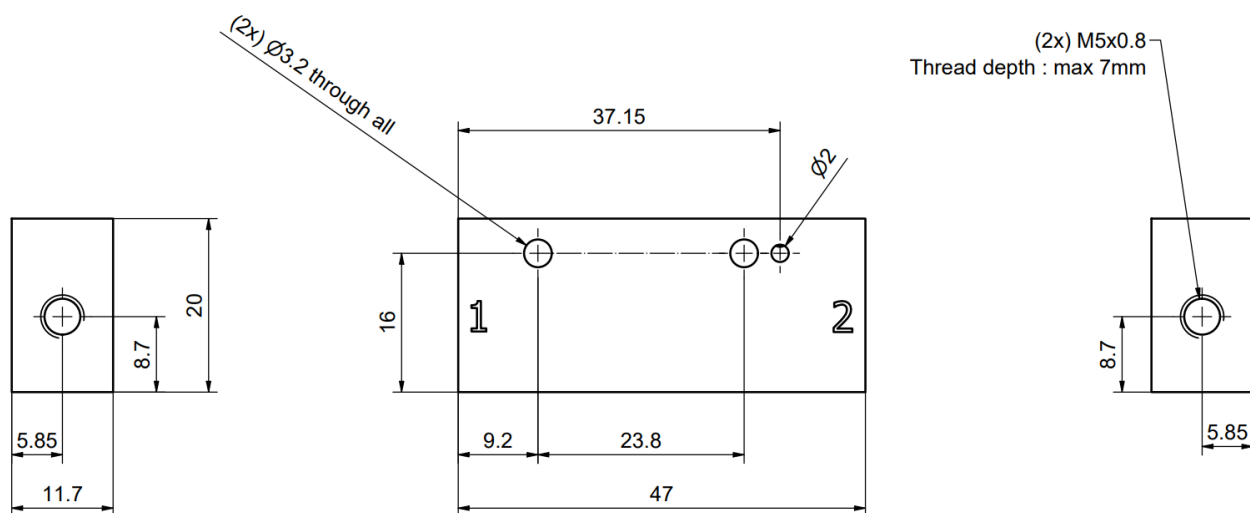
(*) Sealing Area



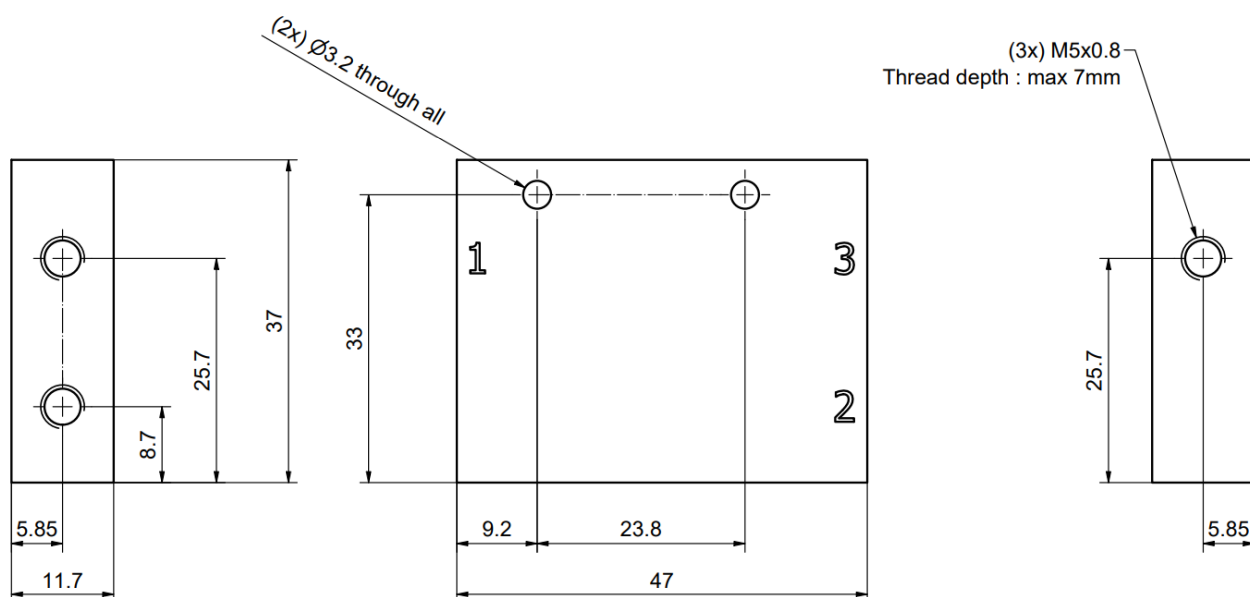
Electrical connection

Pin#	Description
1	+24V
2	Ground
3	A (RS485)
4	B (RS485)
5	Analog Out
6	Analog In

**Inline M5 Subbase
Aluminium
Exhaust to ATM
S400.0048**



**Inline M5 Subbase
Aluminium
Exhaust collected
S4000049**



Warning

These products are intended for use with aggressive sensitive media, Please contact FAS Medic SA for more compatibility requests. Do not use these products where pressures and temperatures can exceed those listed under „Technical features/data“. Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult FAS MEDIC SA. Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure. System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided. System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.