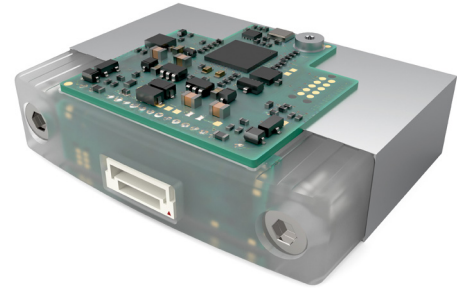


# CHIPREG EPC

## Electronic Pressure Controller

- Precision closed loop pressure controller
- Features two proportional valves (inlet and exhaust)
- Ultra compact size, <14mm width
- Best performance-to-cost ratio
- For Life Science, Medical and Process Control applications
- Ideal for pressure-driven flow in microfluidic applications



### Technical features

#### Controlled Pressure Range:

Range -1 ... 1 bar  
Range 0 ... 4 bar  
Range 0 ... 7 bar  
Custom pressure range on request

#### Max. Inlet Pressure:

Range  $\pm 1$  bar: 5 bar  
Range 0 ... 4 bar: 5 bar  
Range 0 ... 7 bar: 8 bar

#### Operating gas:

Air, N<sub>2</sub>, O<sub>2</sub>, CO<sub>2</sub>, Ar, He, H<sub>2</sub>  
and other non-corrosive gases

#### Quality:

ISO 8573-1 [5:4:3]

#### Global accuracy at 20°C:

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

#### Analog input/output:

0 ... 5 V d.c.

#### 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 V d.c.  $\pm 10\%$

#### Current supply:

< 200 mA

#### Electrical connection:

JST Connector BM06B-GHS-TBT

#### Dimensions:

13,7 x 47,0 x 35,1 mm

#### Wetted materials:

Aluminium, stainless steel, brass, FPM  
Other materials on request

#### Mounting:

Manifold  
Inline M5

#### Cleanliness:

Standard: Medical,  
Analytical clean option on request

### Technical data – standard models

| Controlled pressure (barg) | Orifice (mm) | Max. inlet pressure (barg) | Max. flow (l/min) | kv factor | Mounting                                            | Model                 |
|----------------------------|--------------|----------------------------|-------------------|-----------|-----------------------------------------------------|-----------------------|
| -1 ... 1 *1)               | 0,6          | 5                          | 10                | 0,12      | Manifold                                            | 40E001ACJ1011 1110000 |
| -1 ... 1 *1)               | 0,6          | 5                          | 10                | 0,12      | Inline M5 subbase, 3 ports<br>Exhaust collected     | 40E001ACJ3011 1110010 |
| 0 ... 4                    | 0,6          | 5                          | 10                | 0,12      | Manifold                                            | 40E0045CJ1011 1110000 |
| 0 ... 4                    | 0,6          | 5                          | 10                | 0,12      | Inline M5 subbase, 2 ports<br>Exhaust to atmosphere | 40E0045CJ3011 1110020 |
| 0 ... 4                    | 0,6          | 5                          | 10                | 0,12      | Inline M5 subbase, 3 ports<br>Exhaust collected     | 40E0045CJ3011 1110010 |
| 0 ... 7                    | 0,2          | 8                          | 2,4               | 0,02      | Manifold                                            | 40E0075CJ1011 1110000 |
| 0 ... 7                    | 0,2          | 8                          | 2,4               | 0,02      | Inline M5 subbase, 2 ports<br>Exhaust to atmosphere | 40E0075CJ3011 1110020 |
| 0 ... 7                    | 0,2          | 8                          | 2,4               | 0,02      | Inline M5 subbase, 3 ports<br>Exhaust collected     | 40E0075CJ3011 1110010 |

#### \*1) Control modes:

0 ... 1 bar (IN = inlet pressure, OUT= controlled pressure, EXHAUST = exhaust)

-1 ... 0 bar (IN=exhaust, OUT=controlled pressure, EXHAUST= vacuum).

-1 ... 1 bar (IN=inlet pressure, OUT=controlled pressure, EXHAUST=vacuum), user needs to change to polarity mode, only in RS485, see user manual.

File code: LS\_DS\_CHIPREG-EPC\_en/04/25

## Electrical connection (optional)

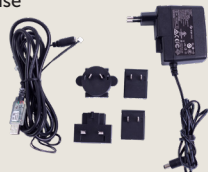
Electrical connector  
JST GHR-06V-S  
with 300 mm flying leads



S401.0024

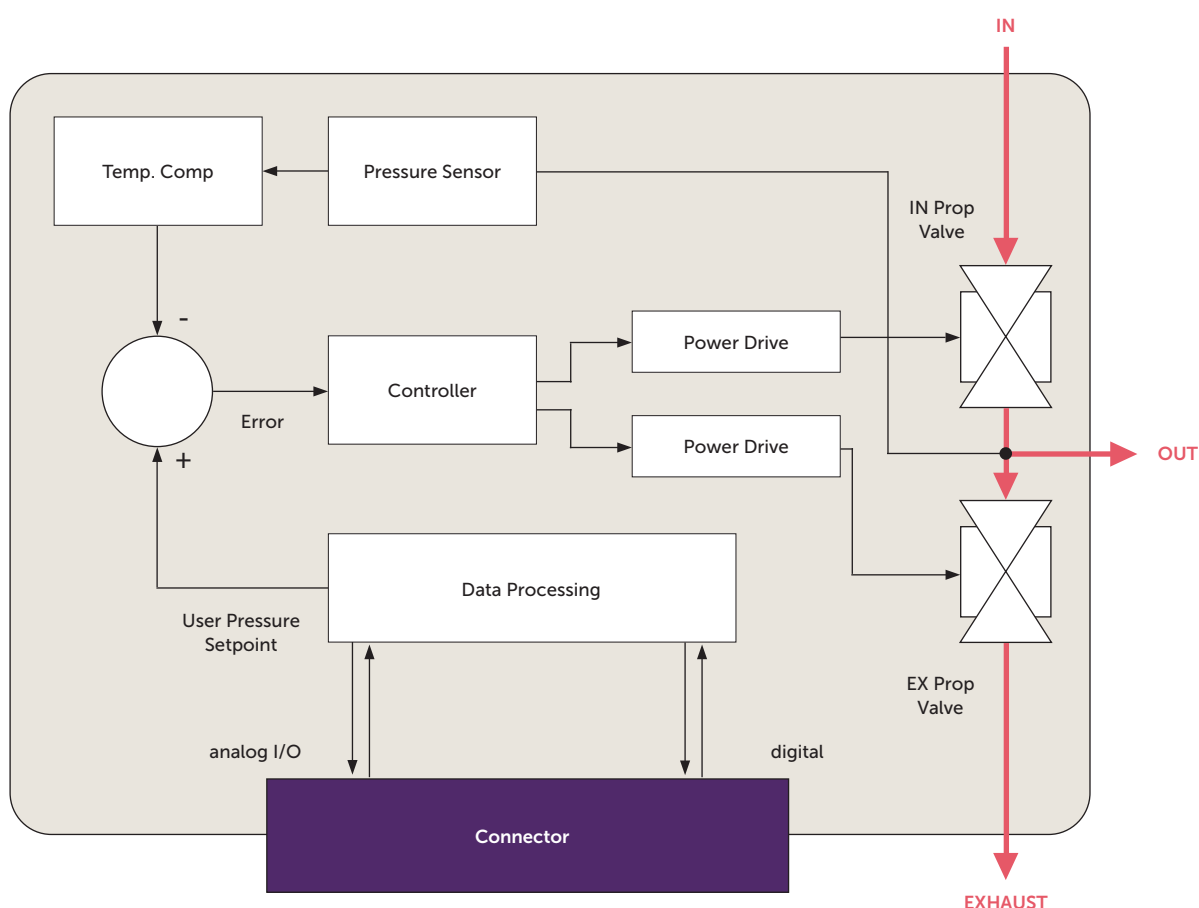
## Cable starter kit (optional)

USB to JST cable (incl. RS485 converter)  
Power supply, universal input voltage and interchangeable AC blades for global use



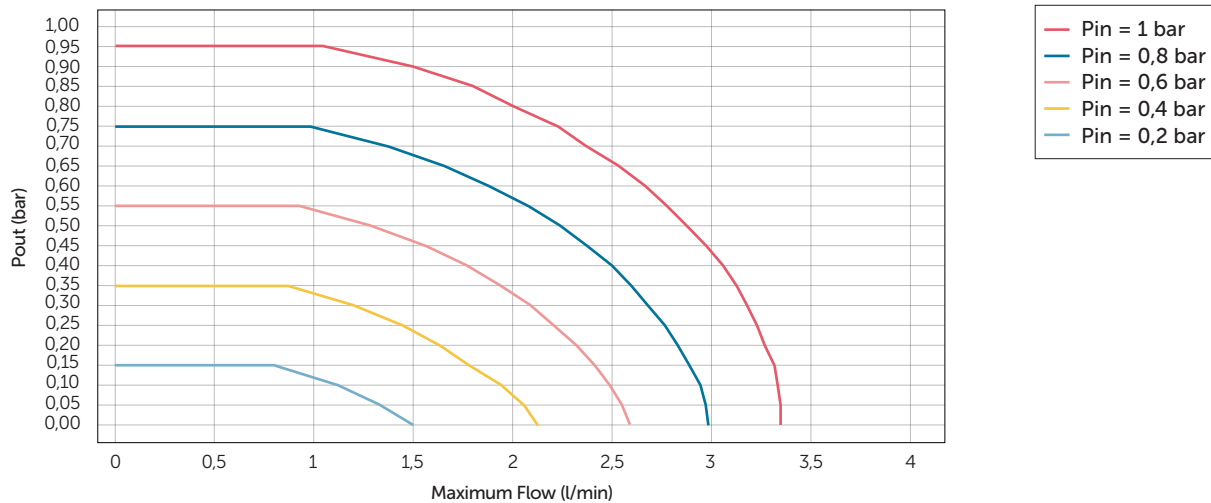
S401.0305

## Block diagram

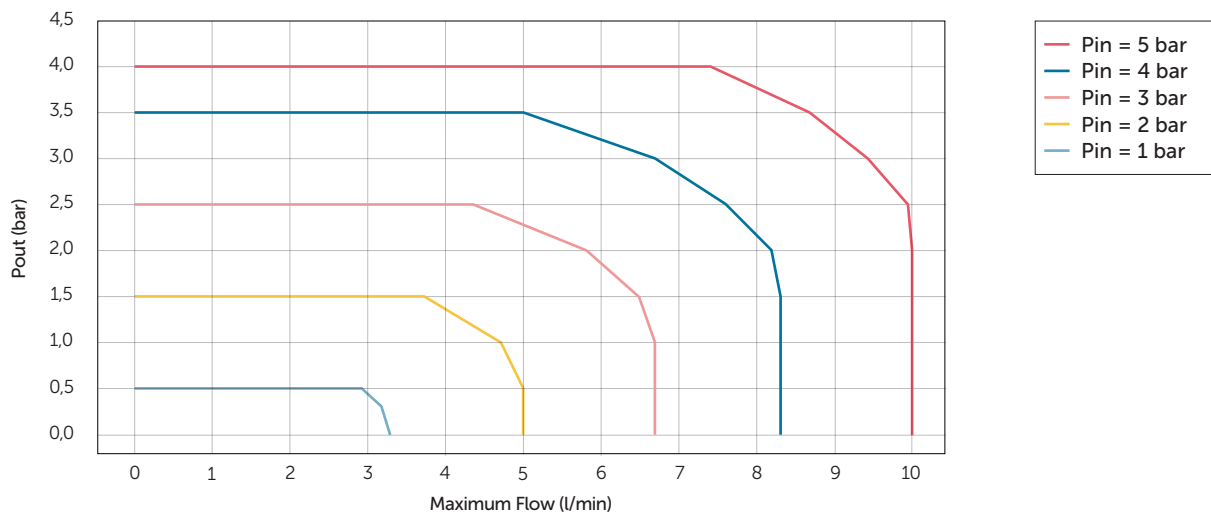


## Flow / Pressure diagram

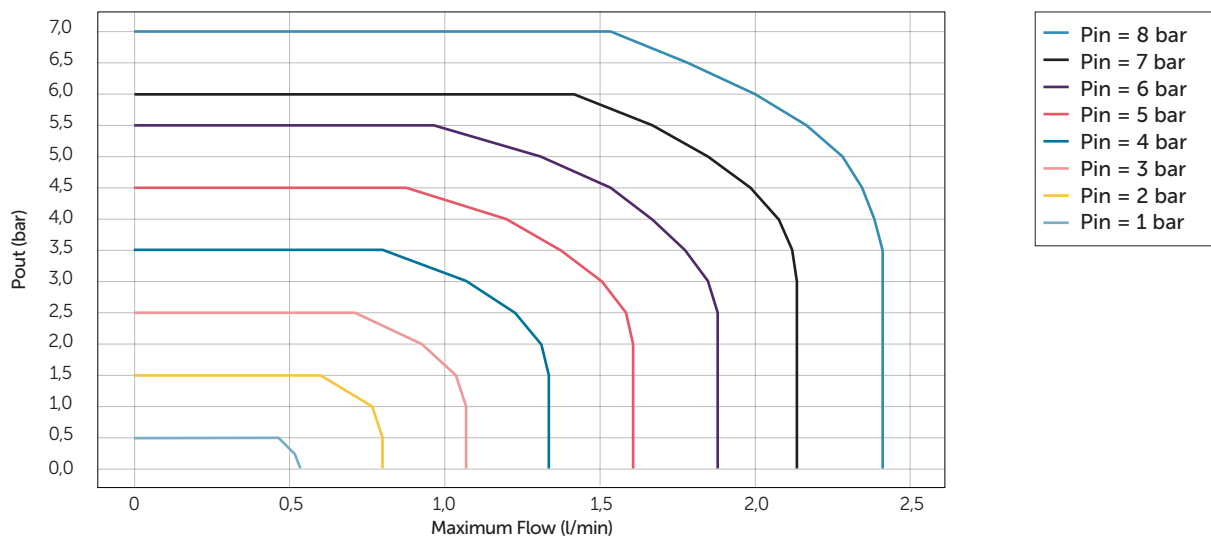
EPC 0 ... 1 bar (air density = 1,21 kg/m<sup>3</sup>, T = 20°C)



EPC 0 ... 4 bar (air density = 1,21 kg/m<sup>3</sup>, T = 20°C)



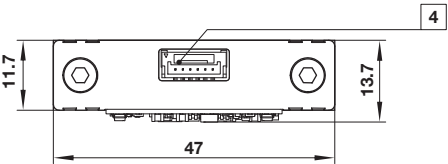
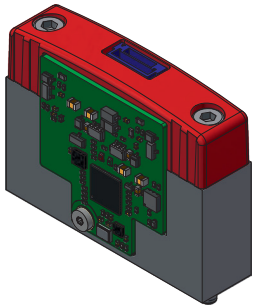
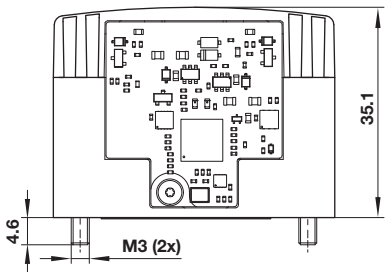
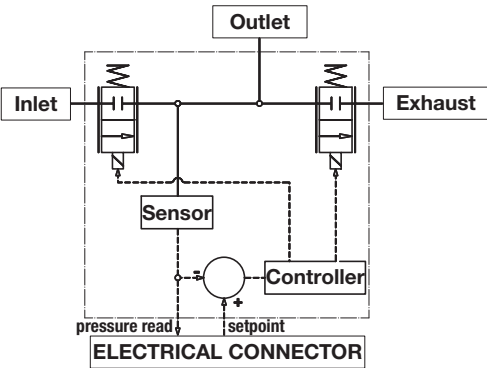
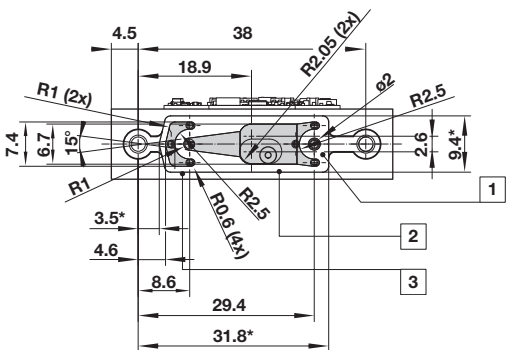
EPC 0 ... 7 bar (air density = 1,21 kg/m<sup>3</sup>, T = 20°C)





Dimensions  
Manifold mount

Dimensions in mm  
Projection/first angle



- 1 INLET
  - 2 OUTLET
  - 3 EXHAUST
  - 4 Electrical connector Pin1
- (\*) Sealing area

Electrical connection

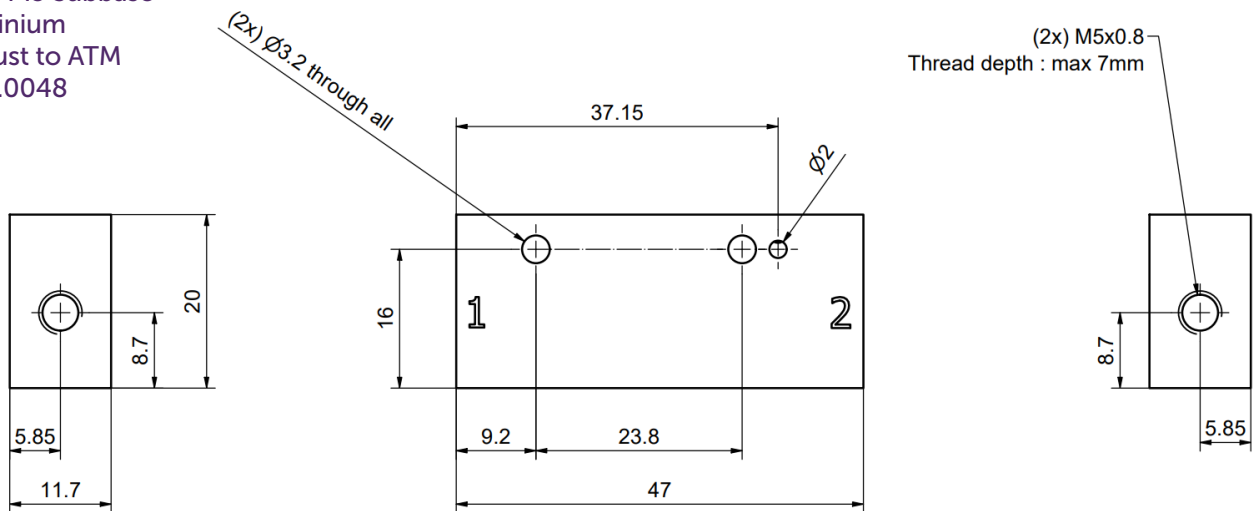
| Pin# | Description |
|------|-------------|
| 1    | +24V        |
| 2    | Ground      |
| 3    | A (RS485)   |
| 4    | B (RS485)   |
| 5    | Analog Out  |
| 6    | Analog In   |

## Dimensions

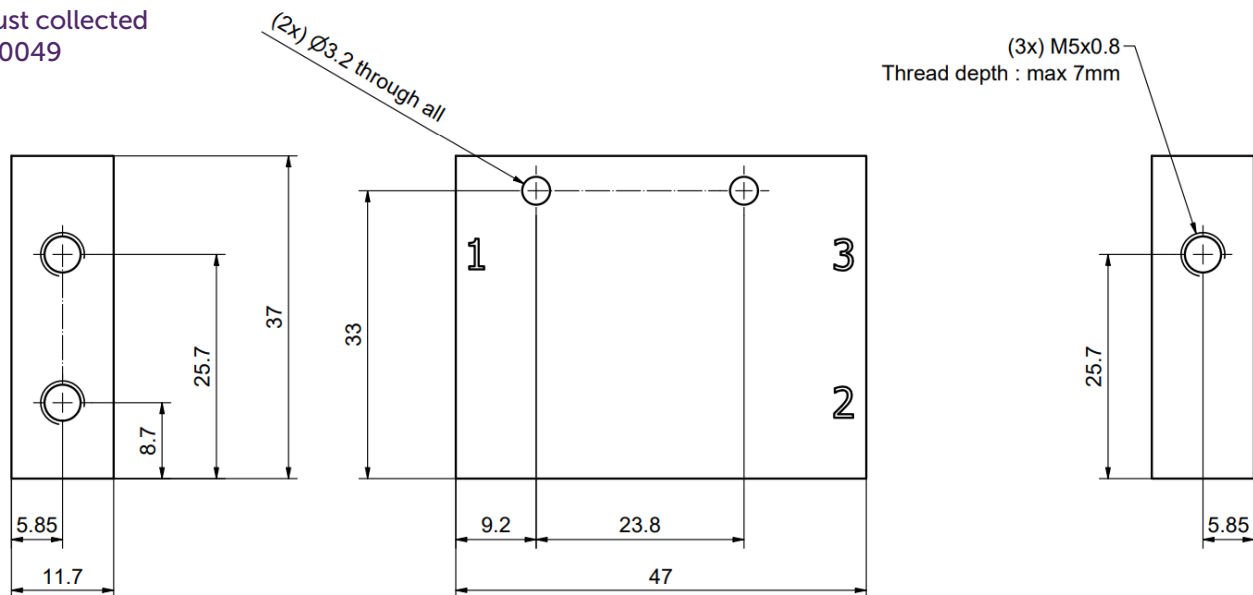
Dimensions in mm  
Projection/first angle



### 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.