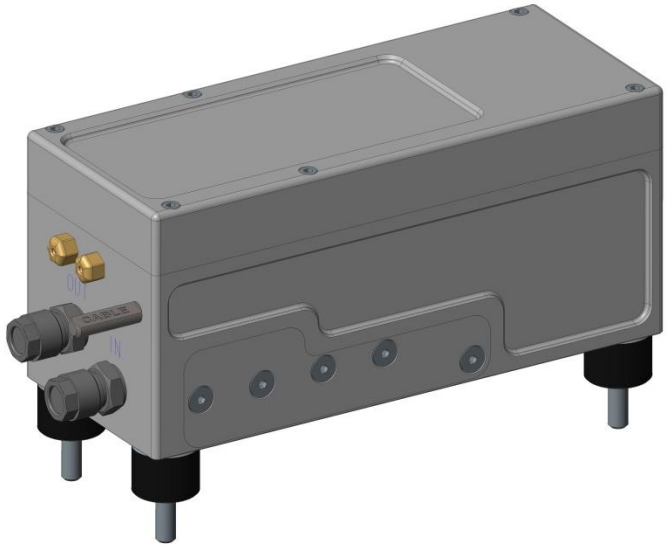
Proportional Brake Controller

Single Port



Features

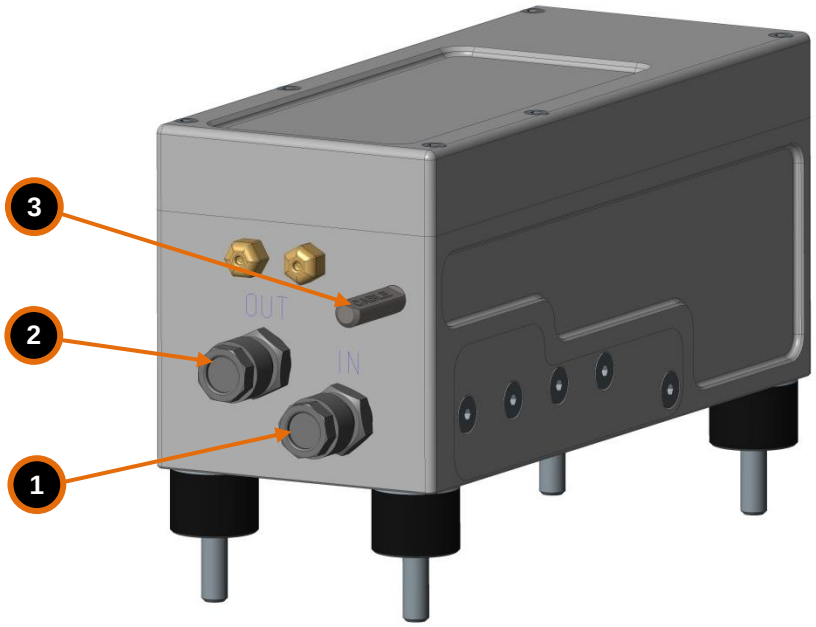
- 2 CAN BUS for safety (both channels receive/transmit constantly)
- Pressure & Temperature monitoring
- Integrated data-logging
- Designed for 12V

Technical specifications

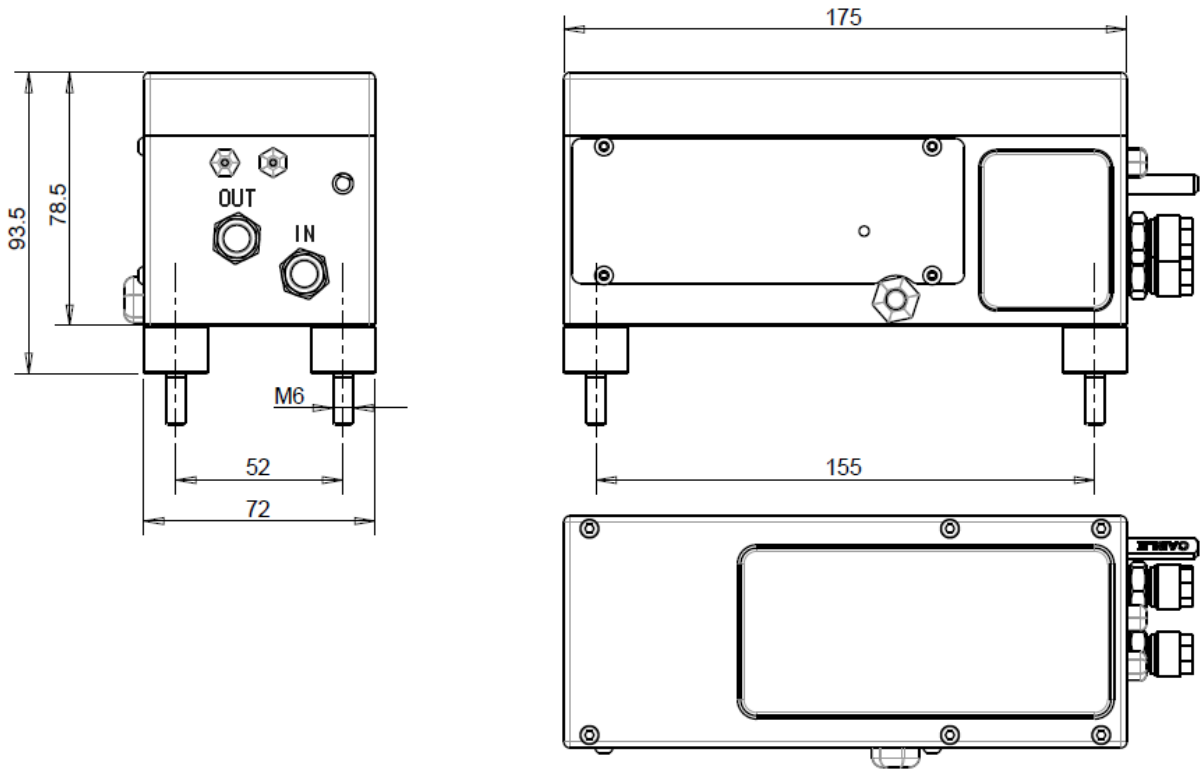
Dimensions L x W x H	175 x 72 x 94 mm
Weight	1.7 kg
Operating temperature	0 ... 90 °C (block temperature)
System Input presure	5 ... 10 Bar
Output pressure (each port)	0 .. 10 Bar
Operating voltage	6V ... 26V

Connection Diagram

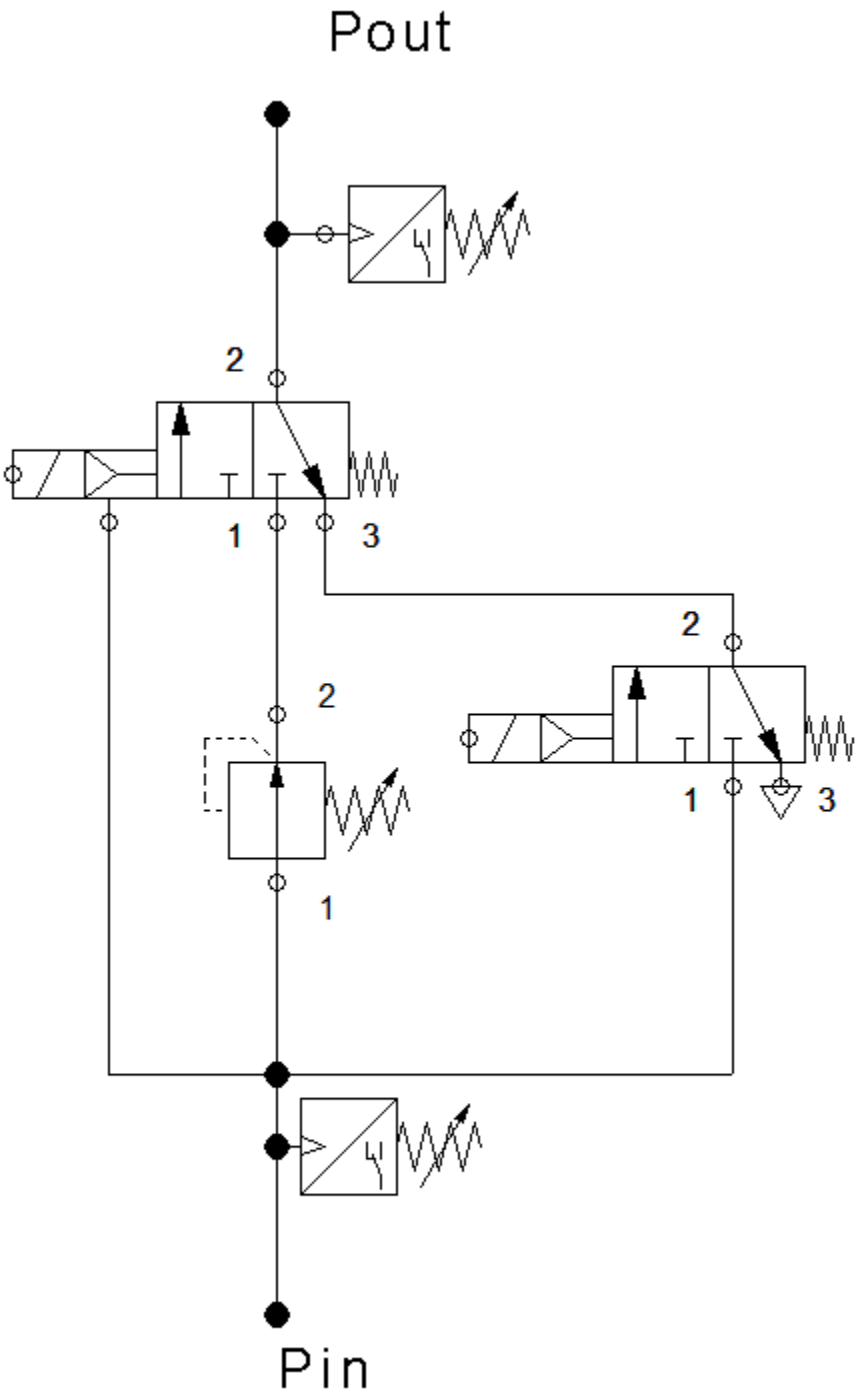
① Pressure supply port P1
② Pressure output port O1
③ Electrical cable



Technical drawing



Pneumatic diagram

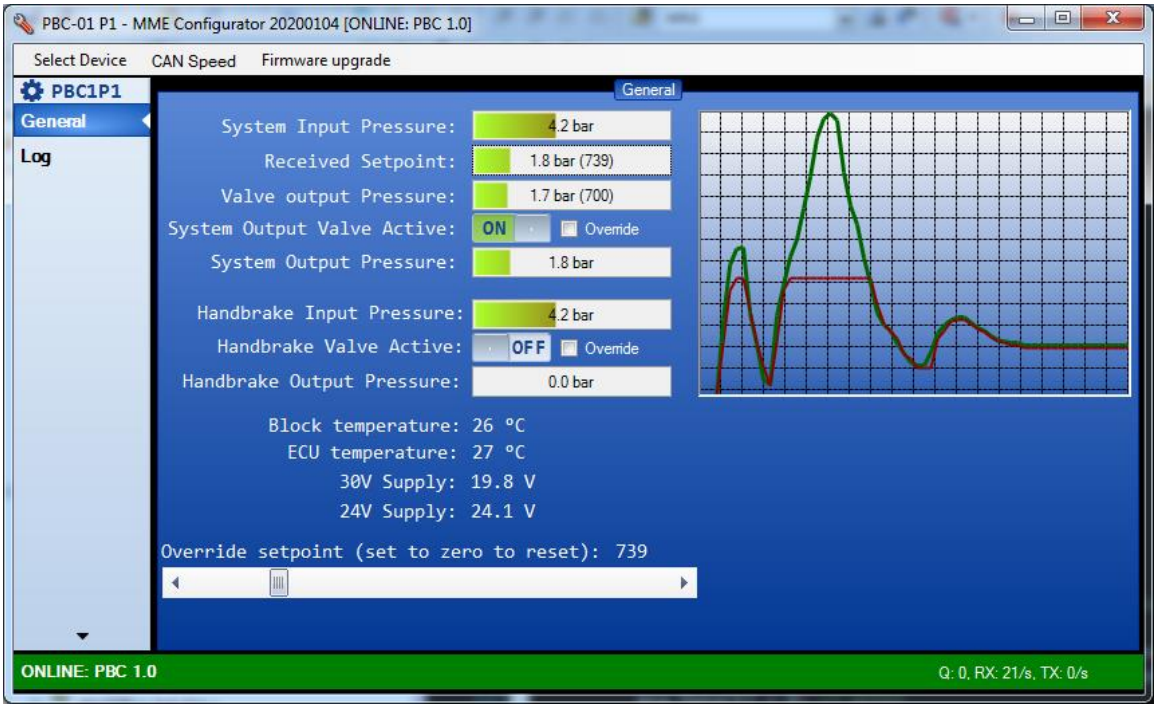


Wiring & Connecting

Wire Color	Function
Brown	Supply voltage
Blue	Ground
Yellow	CAN1+
Green	CAN1-
White	CAN2+
Grey	CAN2-
Red	* External Setpoint 5V
Pink	* External Setpoint Signal (0-5V)

* For External Setpoint Ground use blue wire.

Connecting to the PC:
Please download the latest MME Configurator from http://www.mme-motorsport.com/en/download and use the included USB CAN interface to connect.



USBCAN connection (TE M8.MLE.PNLFRONT.3POS.STR PCB)

LED Indicator & Error codes

Number of blinks	Error
LED blinking constantly	CAN BUS speed auto detection in progress.
LED on constantly	Running with no error

CAN BUS info

CAN speed = automatic detection
BASE id = 0x155

CAN Broadcasting data set

ID	B0	B1	B2	B3	B4	B5	B6	B7
base	bits1	bits2	p.vlv.setpointH	p.vlv.setpointL	p.vlv.outH	p.vlv.outL	error	crc
base+0x1	supply24V	Supply12V	p.supply	p.output	free	free	free	crc
base+0x2	t.block	t.cpu	free	free	free	free	free	crc

bits1	b0 - output valve active b1-b7 – free
bits2	b0-b7 – free
p.vlv.setpointH+L	received setpoint (H*256 + L). 0 = 0 bar, 4095 = 10 bar
p.vlv.outH+L	output pressure directly at the proportional valve, before the output valve (H*256 + L). 0 = 0 bar, 4095 = 10 bar
error	error number (*not implemented yet*)
crc	crc checksum. Formula used: 1 + B0 + B1 + B2 + B3 + B4 + B5 +B6
supply24V	voltage supply at the output regulator. V=(10+(X/255)*30)
supply30V	input voltage supply. V=(5+(X/255)*16)
p.supply	Input pressure supply. P = X/10.0
p.output	Output pressure. P = X/10.0
t.block	Temperature of the valve block. T=-40+X
t.cpu	CPU temperature. T=-40+X

CAN Commands

ID	B0	B1	B2	B3	B4	B5	B6	B7
base+0x100	p.setpointH	p.setpointL	free	free	free	free	timestamp	crc

p.setpointH+L	set setpoint (MSB). 0=0 bar, 4095 = 10 bar
timestamp*	last sent timestamp+1. On power up, last timestamp=0.
crc	Formula: 1 + B0 + B1 + B2 + B3 + B4 + B5 + B6

* timestamp checking is disabled in for easier testing. In later updates, it will be enabled.