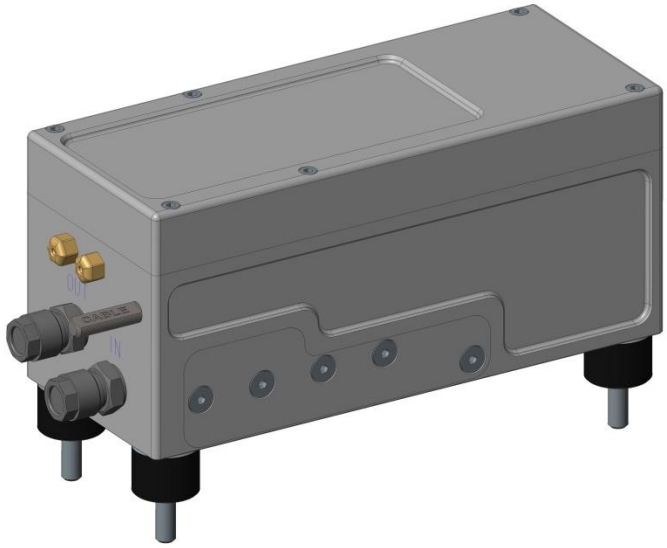
Proportional Brake Controller

Single Port



Features

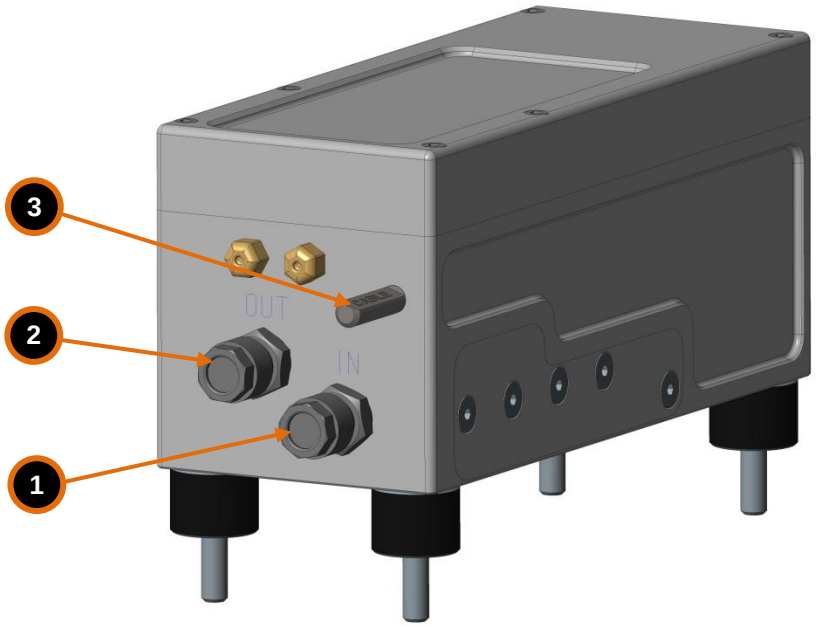
- 2 CAN BUS for safety (both channels receive/transmit constantly)
- Pressure & Temperature monitoring
- Integrated data-logging
- Designed for 12V

Technical specifications

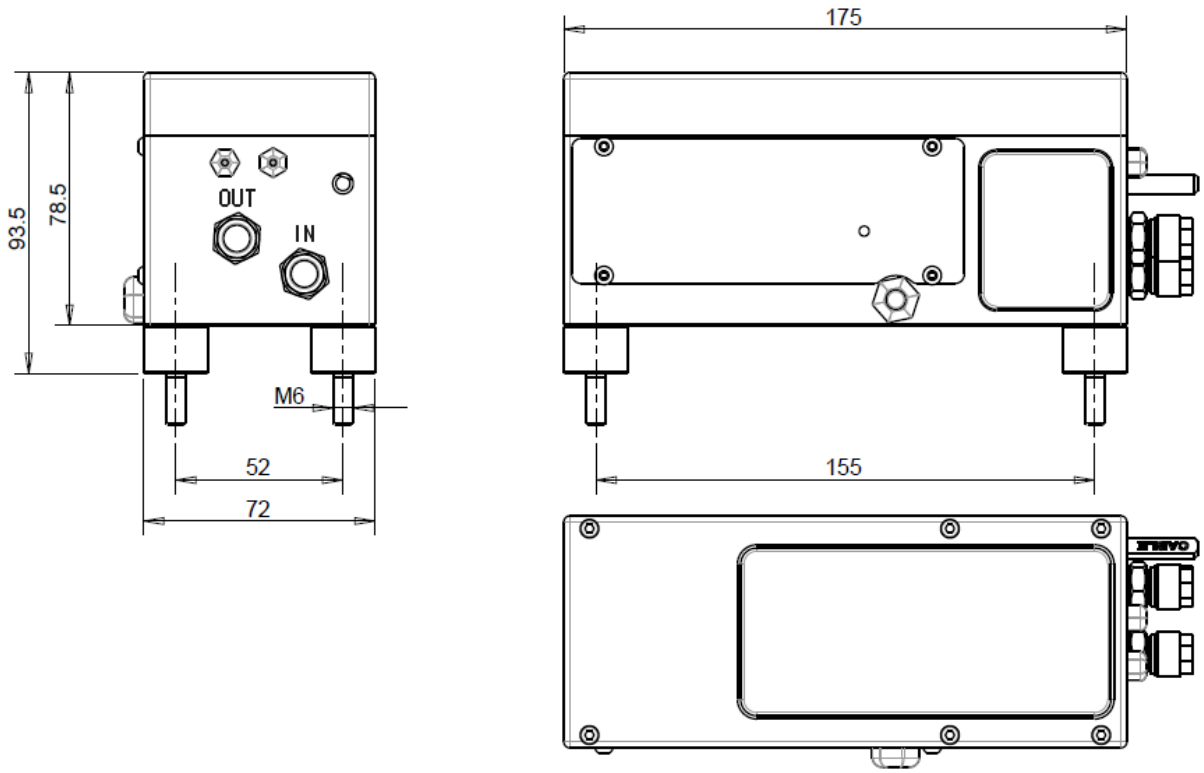
Dimensions L x W x H	175 x 72 x 94 mm
Weight	1.7 kg
Operating temperature	0 ... 70 °C (block temperature)
System Input presure	5 ... 10 Bar
Output pressure (each port)	0 .. 10 Bar
Operating voltage	6V ... 26V

Connection Diagram

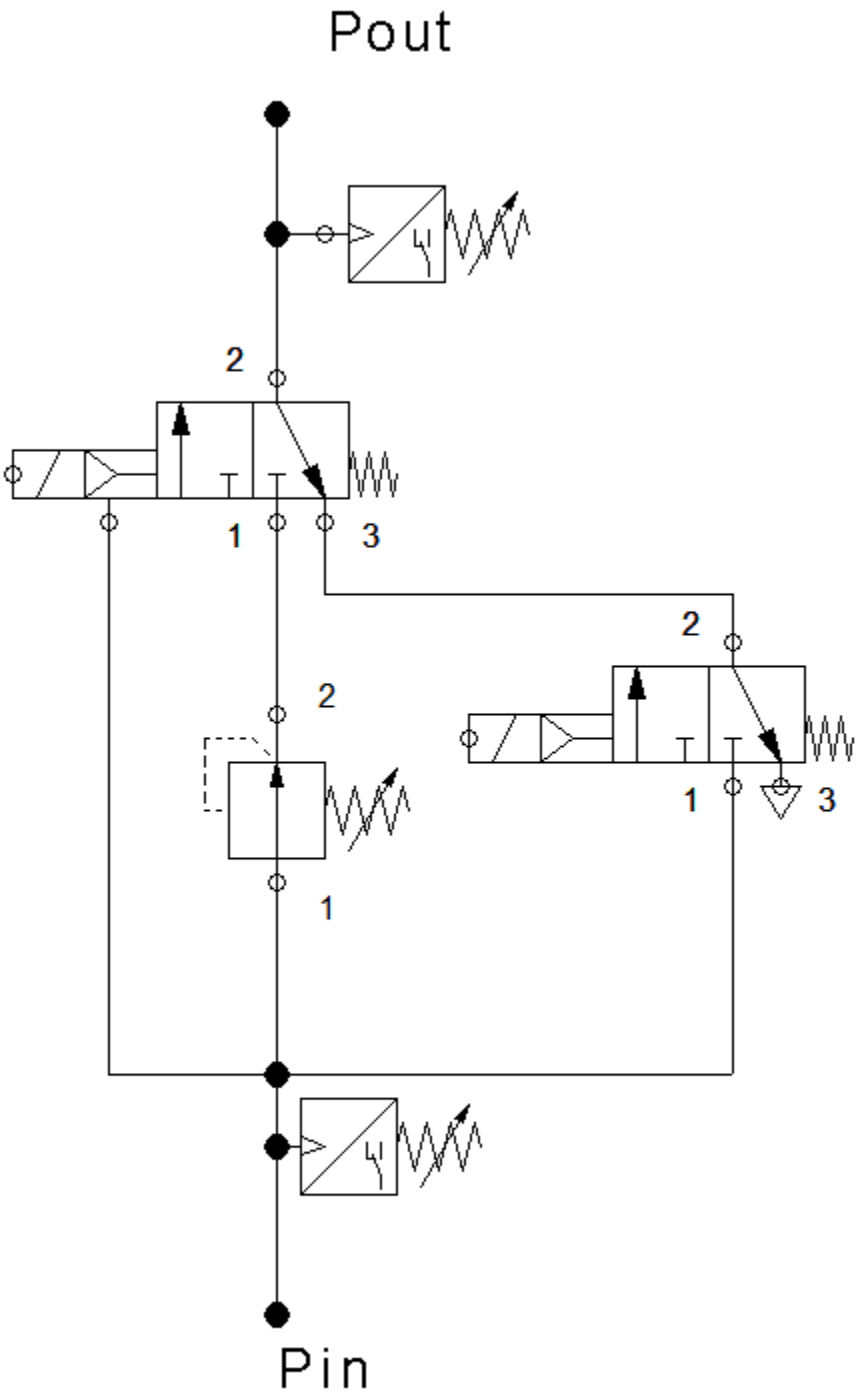
① Pressure supply port P1
② Pressure output port O1
③ Electrical cable



Technical drawing



Pneumatic diagram

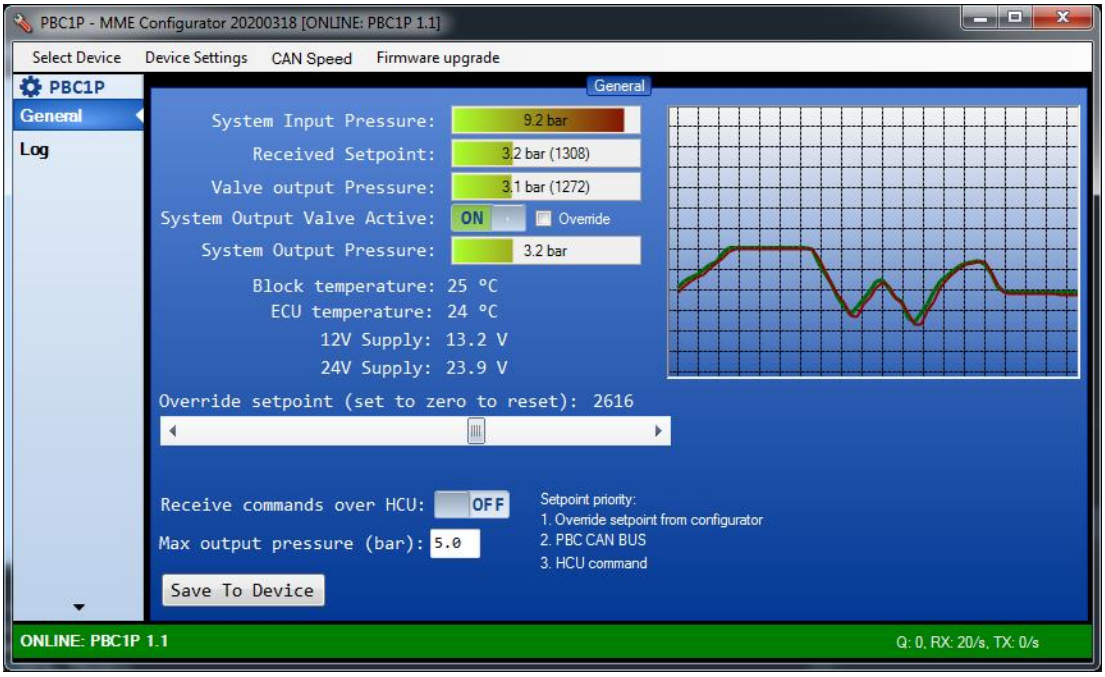


Wiring & Connecting

Wire Color	ATM Connector pin**	Function
Brown	1	Supply voltage
Blue	8	Ground
Yellow	3	CAN1+
Green	6	CAN1-
White	4	CAN2+
Grey	5	CAN2-
Red	2	* External Setpoint 5V
Pink	7	* External Setpoint Signal (0-5V)

* For External Setpoint Ground use blue wire.
** ATM04-08P, mating connector ATM06-08S

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 #T4042014031-000)

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.

WARRANTY

12 Month Limited Warranty

MME Motorsport warrants to the consumer that all MME Motorsport products will be free from defects in material and workmanship for a period of twelve months from the date of the original purchase. Products that fail within this 12-month warranty period will be repaired or replaced when determined by us that the product failed due to defects in material or workmanship. This warranty is limited to the repair or replacement of the MME Motorsport part. This warranty applies only to the original purchaser of the product and is non-transferable. All implied warranties shall be limited in duration to the said 12-month warranty period. Improper use or installation, accident, abuse, unauthorized repairs, opening the casing or alterations performed by the user on any MME Motorsport product voids this warranty.

In no event shall this warranty exceed the original purchase price of the MME Motorsport part nor shall MME Motorsport be responsible for special, incidental or consequential damages or cost incurred due to the failure of this product.

MME Motorsport disclaims any liability for consequential damages due to breach of any written or implied warranty on all of its products.

Warranty returns will only be accepted by MME Motorsport after email confirmation is given to return the product. The product must be received by MME Motorsport within 30 days of the dated email and shipping is at the consumer's expense. Once your package is received by our warranty and repairs department you will be notified and provided with updates.

In the case of Void warranty claims the consumer will be responsible for all shipping, duty and repair costs. The consumer will be notified of a void warranty claim before any repair work is undertaken.

INTENDED USE AND SAFETY INFORMATION

- All input pressure lines **MUST** be fitted with an air filter of at least 5 microns.
- Air supply must be in accordance with ISO 8573-1:2010 (7:4:4) and not exceed 10 bar.
- Temperature of the internal valve block should not exceed 70C/158F
- The units should be mounted using the supplied anti vibration mounds with the cover facing upwards.
- The unit should be protected against water spray.
- **The unit is specifically designed to work in conjunction with and external logic controller. This controller must be responsible for all decisions regarding the operation of the brakes and also for determining whether the unit is operating within parameters or not. As the unit is a universal product designed to work across multiple platforms, the unit will report target and actual pressures via the CAN bus then the external logic controller using its own safety algorithms should take any remedial action required should the unit not perform as expected.**
- **Unit is not street legal and it should not be used on public roads or anywhere where failure could cause damage or injuries. Using the unit is entirely at the risk of the consumer and great consideration should be given to ensure the adequate back up systems are in place to ensure safe operation of the vehicle.**