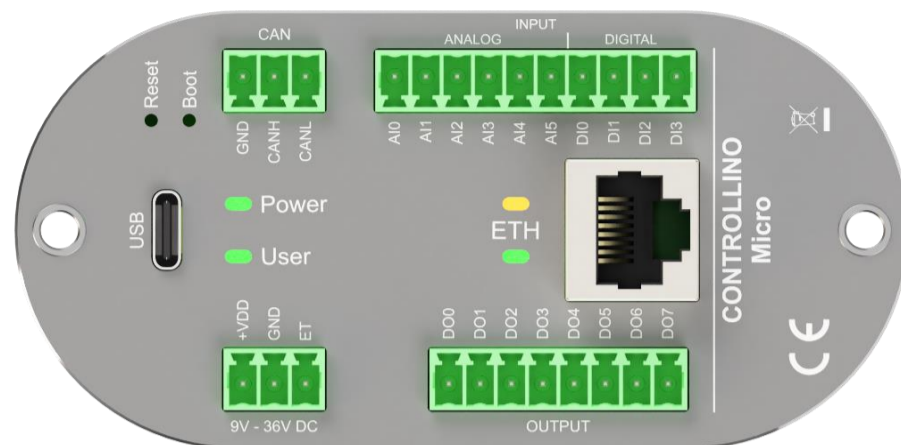


Supply Voltage 12V / 24V
 6 analog inputs (24bit)
 4 analog/digital inputs (12bit)
 8 digital outputs (3A / channel)

USB-C (USB 1.1)
 Ethernet (W5500)
 CAN (MCP2515) or RS485 interface



GENERAL

Dimensions (W × H × D)	mm	100 x 50 x 19,5
Weight in g	g	80
Mounting		screw holes (rail mount with adapter)
Housing		aluminium

ENVIRONMENTAL CONDITIONS

Operating ambient temperature	°C	-10° .. 55°
Relative humidity – non-condensing		80 % for temp. up to 31 °C, decreasing linearly to 50 % relative humidity at 55 °C
Pollution Degree		PD2
Altitude		up to 2000m AMSL
Vibration (5 ≤ f ≤ 9 Hz)		1,75 mm amplitude sinus 3,5 mm amplitude random
Vibration (9 ≤ f ≤ 150 Hz)		0,5 g acceleration sinus 1,0 g acceleration random
Transport and Storage		-20°C – +70°C 10 to 90% no condensation Altitude 3000m AMSL
Shock response		15g, 11ms half sinus all 3 axes

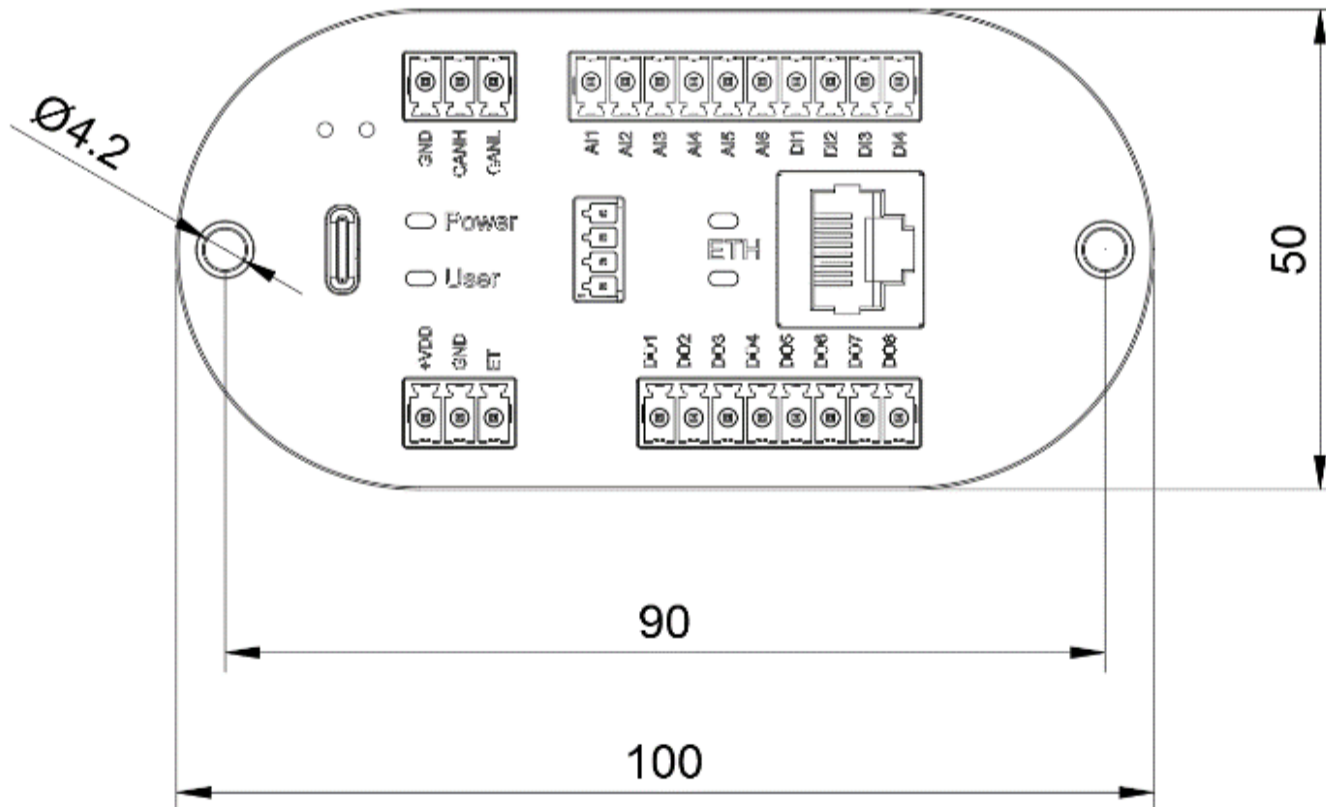
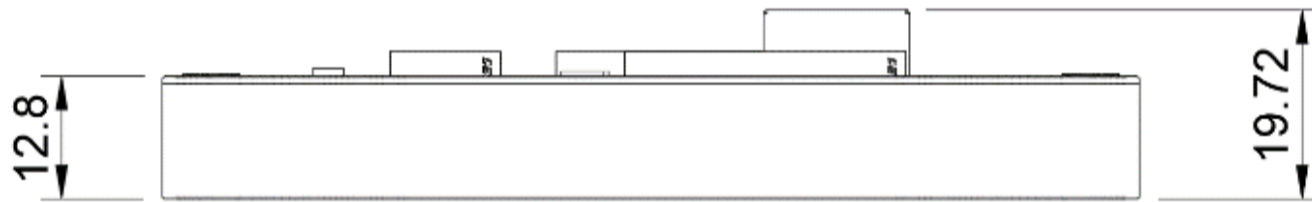
ELECTRICAL CHARACTERISTICS

Nominal Voltage	V DC	12-24
Absolute Maximum	V DC	36
Power consumptions	W	0,8 .. 1,0

I/O

USB (Power for programming only)		USB-C for RP2040 core
Ethernet		RJ45, 10/100Mbps
Analog inputs AI0 .. AI5	V	0 .. 28 @Amplifier Gain 2 (by default)
Resolution	bit	24
Sampling Rate	kHz	up to 1,15
Amplifier Gain		0.33, 1, 2 (default), 4, 8, 16, 32, 64 @64 measure range = 0 .. 0,85V @24bit
Analog/Digital inputs ADI0 .. ADI3		0 .. 25,8V
Analog Sampling Rate	kHz	up to 66
Resolution	bit	12
Digital Outputs, no galvanic insulation		8x Half-Bridge Driver up to 3A per channel 8x PWM 16 Bit (8bit by default) Adjustable output current limit from 0.5A to 3A Built-in Current Sensor for output current monitoring

PIN Header, no galvanic insulation	
Logic level I/Os	2x GPIO 3,3V ready for UART, I2C, 1-wire, ...
Communication	USB-C, CAN or RS485, ETH
COMPUTE CAPAPILITIES	
Chip Type	RPI RP2040
On Chip SRAM	264KB
Flash Memory (external over QSPI)	16 Megabyte
Chip Frequency	133Mhz
Secure Element	ECC608 Cryptochip
PROTECTION	
ESD HBM Class 0	Contact discharge: ±4kV Air discharge: ±8kV
Supply input over current protection	-
Supply input reverse polarity protection	yes
Digital Output	Overload, short circuit, ESD
Signal Input	Overvoltage, ESD
Pin header connector	ESD
Current +3,3V	total 500mA, resettable fuse
PHYSICAL DIMENSIONS	



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