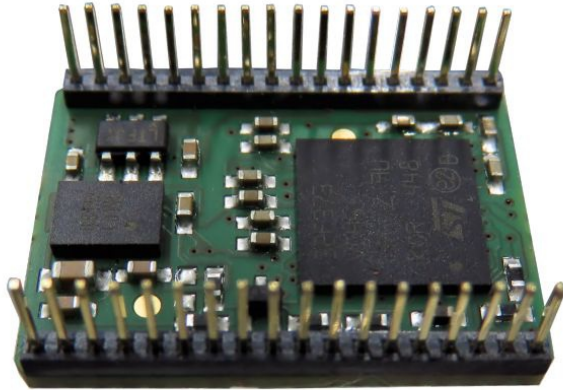
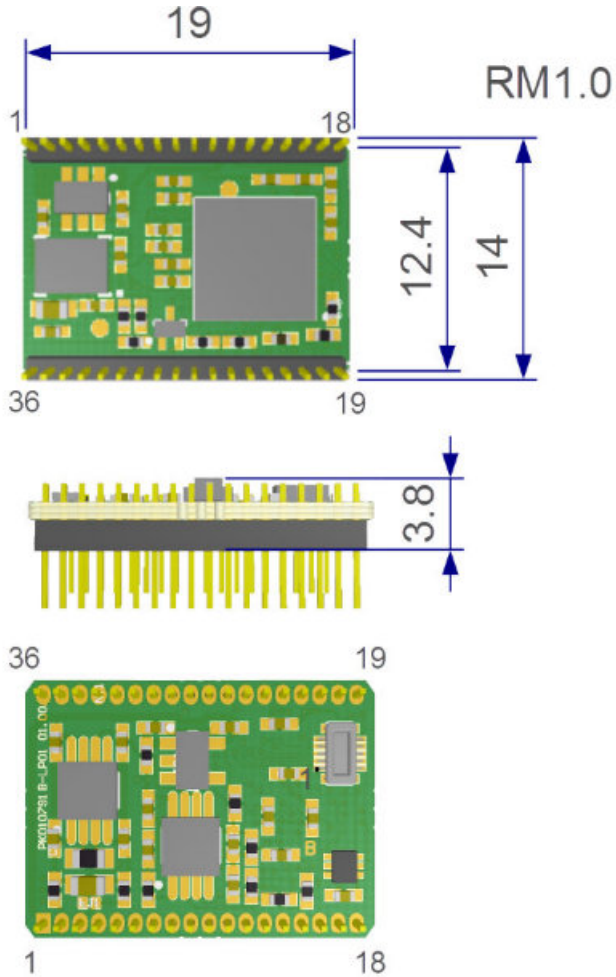


GSV-6CPU GSV-6CPU



Description

Dimensions



Technical Data

Input analog

Number of analog inputs	6
Input sensitivity-stepsless f	0.1 ... 8 mV/V
Input resistance strain-gauge-full-/half-bridge	60 ... 20000 Ohm
Input voltage f	0 ... 3 V

Output analog

Number of analog outputs	6
Output resistance - voltage	47 Ohm
Current output to	10 mA

Measuring frequency

Data frequency f	10 ... 25 Hz
Sampling frequency	50 kHz

Supply

Supply voltage f	3.6 ... 5.5 V
Current consumption from	12 mA
Strain gauge bridge supply	3 V

Interface

Type of the interface	can uart teds spi i2c
Quantity of the interface	5

Zero adjustment

Trigger level f	0.4 ... 2.4 V
Trigger edge	Level

Temperature

Rated temperature range f	-10 ... 85 °C
Operating temperature range f	-40 ... 125 °C
Environmental protection	IP00

Basis Data

Housing	PCB
Connection	Solder connection
Number of channels	6-channel

Precision

Accuracy class	0,1%
Temperature effect on the zero point	0.05 %FS/10°C
Temperature effect on the measuring sensitivity	0.01 %RD/10°C
Resolution	16 Bit



Manual

Note on the bridge circuit: The allowable range for + Ud and -Ud is 1.32V to 1.68V. The maximum, unbalanced series resistor (one-sided series resistance in + Us or -Us) must not exceed 26% of the bridge resistance.

The table lists the maximum possible series resistors, which may be unilaterally connected in + Us or -Us.

Strain Gauge bridge circuit	Max. Series resistor unbalanced
350 Ohms	91 Ohms
700 Ohms	182 Ohms
1000 Ohms	260 Ohms
1400 Ohms	364 Ohms

Mounting

The GSV-6 CPU module can be configured via an UART configuration interface.

There is also scope to configure the most important settings using the Tare and Scale cables.

Terminal assignment

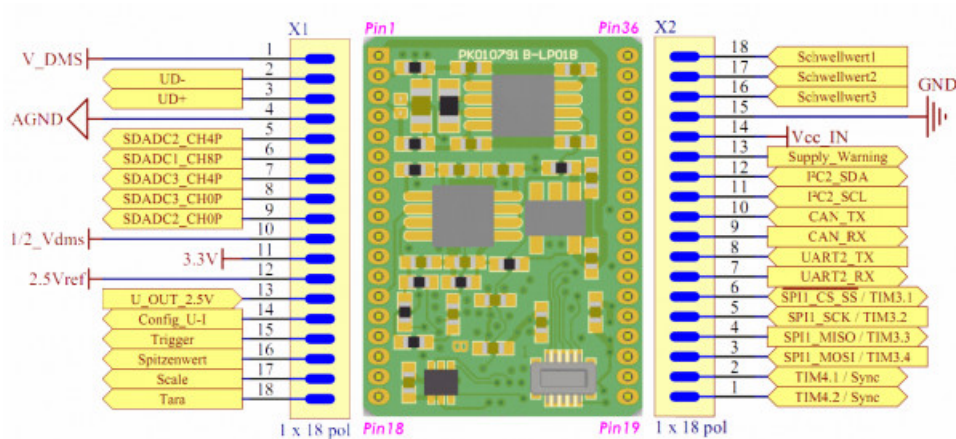


Figure 2: Terminal assignment GSV-6CPU

Configuration interface

A JTAG and UART interface is available for testing and development via a "BM10B" plug connector.

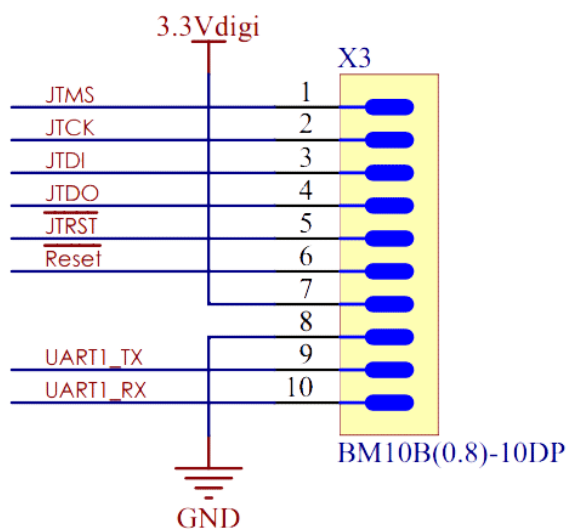


Figure 3: Terminal assignment configuration interface

Strain gauges

PIN	Pin strip	Designation	Function	Comment
1	x1	Us+ (V_DMS)	positive bridge supply 3 V	60 mA, short-circuit proof
2	x1	Ud-	negative bridge output	
3	x1	Ud+	positive bridge output	
4	x1	Us- (AGND)	negative bridge supply (AGND)	

Voltage supply

PIN	Pin strip	Designation	Function	Comment
14	x2	Vcc_IN	voltage supply	3,6 V ...5,5 V
15	x2	GND	ground voltage supply	
13	x2	Supply_Warning	For shutting down external hardware	to connect with Vcc_IN

Inputs/outputs



PIN	Pin strip	Designation	Function	Comment
18	x1	Tare	<p>Tare >1s in actual-value mode: Zero adjustment</p> <p>Tare > 100ms in maximum-value mode maximum-value reset</p> <p>Tare > 2s in maximum-value mode: Zero adjustment and maximum-value reset</p> <p>Tare > 100ms in ClickRClackR menu: "Up", goes to next menu entry.</p>	
17	x1	Scale	<p>Scale > 2s: Scaling of the output signal to the currently effective signal at the input. Default: set at 100% of the output signal. The autoscale level can be configured to values other than 100% in the ClickRClackR menu and via the service interface.</p> <p>Scale > 5s when power switched on: Activate the ClickRClackR menu</p> <p>Scale > 100ms in ClickRClackR menu: "Enter", executes the current menu entry.</p>	
16	x1	TEDS (Spitzenwert)	<p>The connection for 1-wire-EEPROMs functions with 3.3V instead of 5V and includes a 1.5 kR pull-up resistor of 3.3V. The EEPROMs (e.g. DS2433+, DS2430A, DS28EC20) of Maxim/Dallas are 3.3V compatible.</p> <p>The software supports TEDS sensors with the Bridge Sensor ID 33 and Strain-Gage ID 35 templates.</p>	
	x1	LED	Status indicator, with signals including "TEDS read", "Parameter active", "Parameter set", "Gradient indicator".	max. 4mA, 200 Ohm series resistor;
	x1	Temperature-sensor	Typ TMP102, -40°C ...+125°C, ±3°C;	