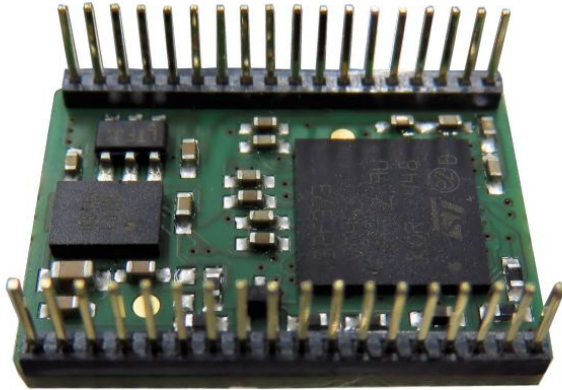
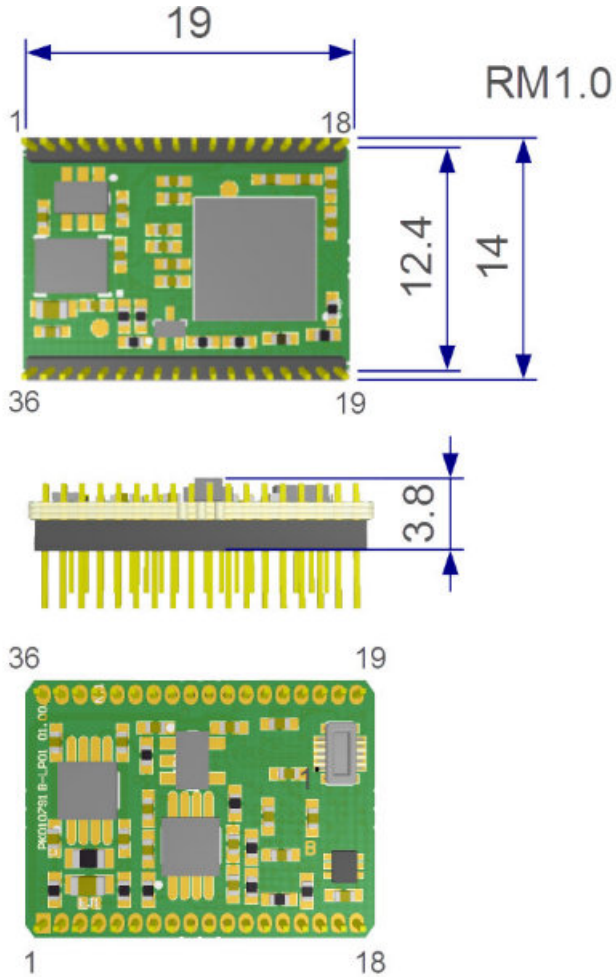


## GSV-6CPU GSV-6CPU



### Description

### Dimensions



## Technical Data

### Basis Data

|                    |              |
|--------------------|--------------|
| Housing            | PCB          |
| Connection         | Lötanschluss |
| Number of channels | 6-Kanal      |

### Eingang 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 to                                | 3 V              |

### 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        |

### 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           |

### Measuring frequency

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

## 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

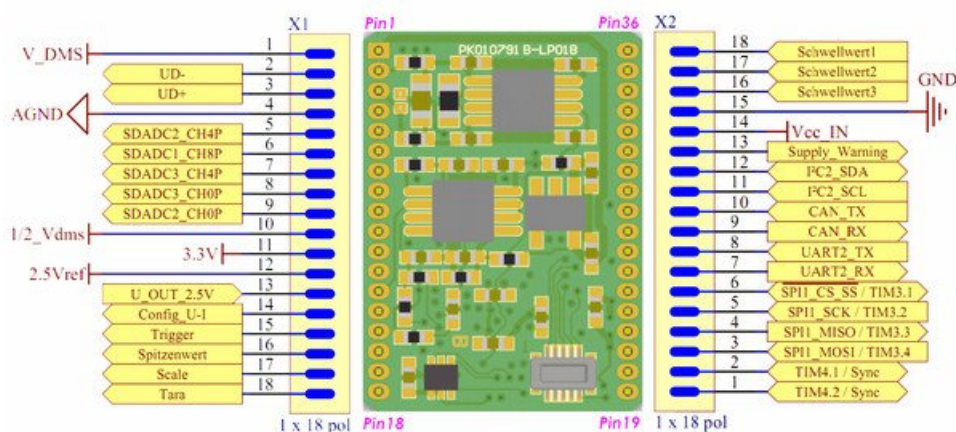


Figure 2: Terminal assignment GSV-6CPU

## Configuration interface

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

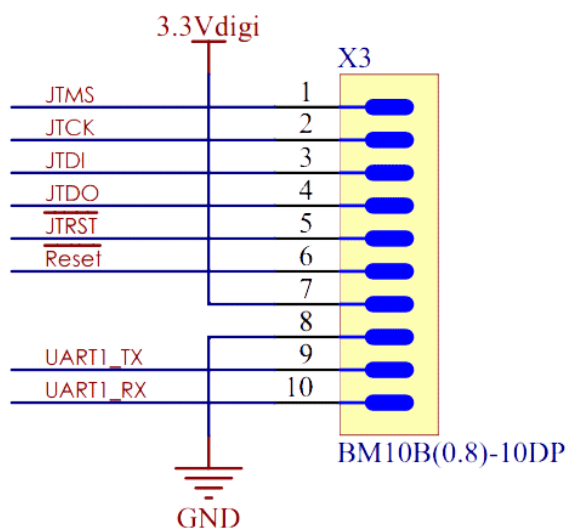


Figure 3: Terminal assignment configuration interface

**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 |
|-----|-----------|-------------|----------|---------|
|     |           |             |          |         |



| PIN | Pin strip | Designation           | Function  | Comment                            |
|-----|-----------|-----------------------|---|------------------------------------|
| 18  | x1        | Tare                  | Tare > 1s in actual-value mode: Zero adjustment<br>Tare > 100ms in maximum-value mode maximum-value reset   |                                    |
|     |           |                       | Tare > 2s in maximum-value mode: Zero adjustment and maximum-value reset<br>Tare > 100ms in ClickRClackR menu: "Up", goes to next menu entry.   |                                    |
| 17  | x1        | Scale                 | 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.<br>Scale > 5s when power switched on: Activate the ClickRClackR menu<br>Scale > 100ms in ClickRClackR menu: "Enter", executes the current menu entry. |                                    |
| 16  | x1        | TEDS<br>(Spitzenwert) | 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.<br>The software supports TEDS sensors with the Bridge Sensor ID 33 and Strain-Gage ID 35 templates.  |                                    |
|     | 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;  |                                    |