

DAQP-BRIDGE-A**Isolated strain gauge module**

- **Input ranges:** $\pm 5, \pm 10, \pm 25, \pm 50, \pm 100, \pm 250$ mV
@ 5 V_{DC} excitation: $\pm 1, \pm 2, \pm 5, \pm 10, \pm 20, \pm 50$ mV/V
- **Bandwidth:** 20 kHz
- **Isolation:** 350 V_{DC} for input and excitation
- **Signal connection:** 9-pin SUB-D socket
8-pin LEMO socket

**Module specifications**

| DAQP-BRIDGE-A | |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gain | 20 to 1000 |
| Input ranges @ 5 V _{DC} excitation | $\pm 5, \pm 10, \pm 25, \pm 50, \pm 100, \pm 250$ mV $\pm 1, \pm 2, \pm 5, \pm 10, \pm 20, \pm 50$ mV/V |
| Range selection | Push button or software |
| Input impedance | > 100 MOhm |
| DC accuracy | ± 0.1 % |
| Gain linearity | ± 0.05 % |
| Excitation voltage | 0.25, 0.5, 1, 2.5, 5 and 10 V _{DC} software programmable (5 V _{DC} = default setting) |
| Accuracy | 0.05 % ± 1 mV |
| Drift | typ. 20 ppm (max. 40 ppm) |
| Protection | Continuous short to ground |
| Bridge types | Full bridge $\frac{1}{2}$ bridge with internal completion (software programmable) $\frac{1}{4}$ bridge with internal resistor for 120 and 350 Ohm (software programmable) |
| Bridge resistance | 120 Ohm to 10 kOhm (down to 87 Ohm on request) |
| Shunt calibration | Two internal shunt resistors or external resistor for shunt calibration (175k & 59k88) |
| Zero adjust | Full automatic, ± 200 % of F.S. (via push button or software) |
| Bandwidth (-3 dB) | 20 kHz (± 1.5 dB @ f ₀) |
| Filters (lowpass) | 10 Hz, 100 Hz, 1 kHz, 5 kHz, 20 kHz (± 1.5 dB @ f ₀) |
| Filter selection | Push button or software |
| Filter characteristics | Bessel or Butterworth (software programmable) 40 dB / decade (12 dB / octave) |
| Typ. SNR @ max. bandwidth | 71 dB @ Gain 1000 79 dB @ Gain 20 |
| Typical CMRR | 73 dB @ 0 Hz 71 dB @ 400 Hz 70 dB @ 1 kHz |
| Overvoltage protection | ± 10 V _{DC} |
| Isolation | 350 V _{DC} (for input and excitation) |
| Output voltage | ± 5 V |
| Output resistance | < 10 Ohm |
| Output current | Max. 5 mA |
| Output protection | Continuous short to ground |
| RS-485 interface | Yes |
| TEDS support | No |
| MSI support | Manually support of MSI-BR-TH-x adapter |
| Power supply voltage | ± 9 V _{DC} (± 1 %) |
| Power consumption | Typ. 1.44 W @ 350 Ohm, 1.83 W @ 120 Ohm (both full bridge @ 5 V _{DC} excitation) Max: 3 W (depending on sensor)* |