

**DAQP-LA**

- **Input ranges:**
- **Bandwidth:**
- **Signal connection:**

**Isolated current module**

DAQP-LA-B: 0.1 A, 0.3 A, 1 A, 3 A, 10 A peak, 30 A peak,  
 DAQP-LA-B-S1: 2 mA, 6 mA, 20 mA, 60 mA, 200 mA, 0.6 A,  
 300 kHz  
 Safety banana sockets

**Module specifications**

|                           | DAQP-LA-B                                                                                                                                              | DAQP-LA-B-S1                            |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Input resistance (Shunt)  | 0.1 Ohm                                                                                                                                                | 5 Ohm                                   |
| Shunt inductance          | <10 nH                                                                                                                                                 | <10 nH                                  |
| Input ranges              | 0.1 A, 0.3 A, 1 A, 3 A, 10 A peak, 30 A peak                                                                                                           | 2 mA, 6 mA, 20 mA, 60 mA, 200 mA, 0.6 A |
| Continuous current        | max. 5 A <sub>RMS</sub>                                                                                                                                | max. 0.6 A                              |
| Peak current              | 30 A max. 10 ms; 10 A max. 100 ms                                                                                                                      | 3 A max. 10 ms; 1 A max. 100 ms         |
| DC accuracy               |                                                                                                                                                        |                                         |
| 100 mA and 300 mA         | ±0.05 % of reading ±300 µA                                                                                                                             | ±0.05 % of reading ±6 µA                |
| 1 A to 30 A               | ±0.05 % of reading ±0.05 % of range                                                                                                                    | ±0.05 % of reading ±0.05 % of range     |
| 2 mA and 6 mA             |                                                                                                                                                        |                                         |
| 20 mA to 600 mA           |                                                                                                                                                        |                                         |
| Offset drift              |                                                                                                                                                        |                                         |
| 100 mA and 300 mA         | typ. max.                                                                                                                                              | typ. max.                               |
| 1 A to 30 A               | 12 20 µA/°K                                                                                                                                            | 0.24 0.4 µA/°K                          |
| 2 mA and 6 mA             | 20 40 ppm of Range/°K                                                                                                                                  | 20 40 ppm of Range/°K                   |
| 20 mA to 600 mA           |                                                                                                                                                        |                                         |
| Gain linearity            | 0.03 %                                                                                                                                                 |                                         |
| Gain drift range          | Typically 20 ppm/°K (max. 50 ppm/°K)                                                                                                                   |                                         |
| Long term stability       | 100 ppm/sqrt (1000 hrs)                                                                                                                                |                                         |
| Bandwidth (-3 dB)         | 300 kHz <sup>(1)</sup>                                                                                                                                 |                                         |
| Filter selection          | Push button or software                                                                                                                                |                                         |
| Filters (low pass)        | 10 Hz, 30 Hz, 100 Hz, 300 Hz, 1 kHz, 3 kHz, 10 kHz, 30 kHz, 100 kHz                                                                                    |                                         |
| Filter characteristics    | 10 Hz to 100 kHz: Butterworth or Bessel 40 dB/dec (2nd order; ±1.5 dB @ f <sub>0</sub> )<br>300 kHz: Bessel 60 dB/dec (3rd order; 0 to -3 dB @ 300kHz) |                                         |
| Typical SFDR and SNR      |                                                                                                                                                        |                                         |
|                           | 300 kHz                                                                                                                                                | 100 kHz                                 |
|                           | SFDR SNR                                                                                                                                               | SFDR SNR                                |
| 100 mA                    | 95 dB 64 dB                                                                                                                                            | 95 dB 67 dB                             |
| 1 A                       | 102 dB 82 dB                                                                                                                                           | 103 dB 85 dB                            |
| 30 A                      | 104 dB 89 dB                                                                                                                                           | 103 dB 89 dB                            |
| Isolation voltage         | Input to Ground 1.4 kV <sub>RMS</sub>                                                                                                                  |                                         |
| Protection                | CAT III 300 V<br>CAT II 600 V                                                                                                                          |                                         |
| Output voltage            | ±5 V                                                                                                                                                   |                                         |
| Output resistance         | <10 Ohm                                                                                                                                                |                                         |
| Output current            | 5 mA                                                                                                                                                   |                                         |
| Power On default settings | Software programmable                                                                                                                                  |                                         |
| Output protection         | Short to ground for 10 sec.                                                                                                                            |                                         |
| Power supply              | ±9 V <sub>DC</sub> ± 1%                                                                                                                                |                                         |
| Power consumption         | 0.7 W                                                                                                                                                  |                                         |
| Interface                 | RS-485                                                                                                                                                 |                                         |

<sup>(1)</sup> 300 kHz exclusively for Bessel filter characteristic