

# TRION3-1810-SUB-8



- ▶ Modular voltage and current inputs
- ▶ Sampling: up to 1 MS/s



## Module specifications

TRION3-1810-SUB-8 specifications	
Input channels	Up to 8 channels with modular voltage and current inputs
Sampling rate	Up to 1 MS/s
Input specifications	For detailed information about the input specifications refer to <a href="#">TRION sub-modules</a> in the TRION(3) series modules technical reference manual.
Typical channel to channel phase mismatch (Voltage-Voltage, Current-Current, Voltage-Current)	<250 ns (0.1° @ 1 kHz, 0.005° @ 50 Hz)
Typical board-to-board phase mismatch <ul style="list-style-type: none"> <li>– Same board type</li> <li>– Different board type</li> </ul>	<250 ns (0.1° @ 1 kHz, 0.005° @ 50 Hz) ±1 sample or 0.2° @ 1 kHz (whichever is higher)
Low pass filter (-3 dB, digital and analog combined) <ul style="list-style-type: none"> <li>– Filter order and characteristics</li> </ul>	100 Hz to 1 MHz freely programmable or OFF 2nd, 4th, 6th, 8th Bessel or Butterworth
Filter delay compensation	Up to 15 μs the group delay of the selected filter will be automatically compensated. This works for: <ul style="list-style-type: none"> <li>– 2nd order filter 15 kHz to 1 MHz</li> <li>– 4th order filter 30 kHz to 1 MHz</li> <li>– 6th order filter 60 kHz to 1 MHz</li> </ul>
Onboard data buffer	512 MB
Power consumption <ul style="list-style-type: none"> <li>– with sensor supply</li> </ul>	Typ. 8 W, max. 10 W Max. 15 W
Total sensor supply <ul style="list-style-type: none"> <li>– with TRION-POWER-SUB-dLV-xV modules</li> </ul>	+9 V: 200 mA / -9 V: 200 mA

Tab. 57: General specifications

# TRION3-1810-SUB-8

## Connection

### Connection ports

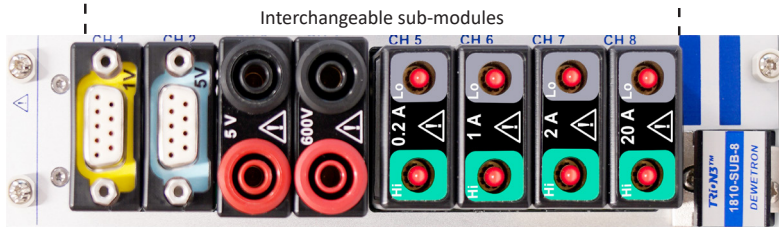


Fig. 155: Connection ports

### Interchangeable sub-modules

The TRION3-18xx-SUB-8 module provides 8 slots for TRION sub modules, thus allowing a very modular configuration of various voltage and current inputs.



Fig. 156: Available TRION sub-modules

The following TRION-SUB-xV modules can be combined as desired. For detailed information about the various TRION sub-modules refer to [TRION sub-modules](#) of the TRION(3) series modules technical reference manual.

Type	Range	Bandwidth	Isolated
<a href="#">TRION-SUB-600V</a>	600 V <sub>RMS</sub> ( $\pm 1500$ V <sub>PEAK</sub> )	300 kHz	Yes
<a href="#">TRION-SUB-5V</a>	5 V <sub>RMS</sub> ( $\pm 10$ V <sub>PEAK</sub> )	300 kHz	Yes
<a href="#">TRION-SUB-XV</a>	600 V <sub>RMS</sub> ( $\pm 1000$ V) <sup>1)</sup> 60 V <sub>RMS</sub> ( $\pm 100$ V) 6 V <sub>RMS</sub> ( $\pm 10$ V) 0.6 V <sub>RMS</sub> ( $\pm 1$ V)	300 kHz	Yes
<a href="#">TRION-POWER-SUB-CUR-20A-1B</a>	20 A <sub>RMS</sub> ( $\pm 40$ A <sub>PEAK</sub> )	300 kHz	Yes
<a href="#">TRION-POWER-SUB-CUR-2A-1B</a>	2 A <sub>RMS</sub> ( $\pm 4$ A <sub>PEAK</sub> )	300 kHz	Yes
<a href="#">TRION-POWER-SUB-CUR-1A-1B</a>	1 A <sub>RMS</sub> ( $\pm 2$ A <sub>PEAK</sub> )	300 kHz	Yes
<a href="#">TRION-POWER-SUB-CUR-02A-1B</a>	0.2 A <sub>RMS</sub> ( $\pm 0.4$ A <sub>PEAK</sub> )	300 kHz	Yes
<a href="#">TRION-POWER-SUB-dLV-5V</a>	5 V <sub>RMS</sub> ( $\pm 10$ V <sub>PEAK</sub> )	5 MHz	No
<a href="#">TRION-POWER-SUB-dLV-1V</a>	1 V <sub>RMS</sub> ( $\pm 2$ V <sub>PEAK</sub> )	5 MHz	No

Tab. 58: Supported TRION sub-modules

<sup>1)</sup> Max. allowed input: 600 V CAT II (850 V<sub>PEAK</sub>).

#### INFORMATION

The [TRION-POWER-SUB-dLV-1](#) sub-module is not supported.