

# TRION-BASE



- ▶ Counter, DIO and synchronization module
- ▶ Counter channels: 2 advanced counter
- ▶ Digital I/O: 8 DIO and 8 DI
- ▶ Synchronization
  - IRIG code B
  - DC I/O
- ▶ Additional features: 1 AUX socket (by default set to camera trigger)



## Module specifications

TRION-BASE specifications		
<b>Digital I/O specifications</b>		
Number of channels	8 DIO + 8 DI	
Compatibility (input)	CMOS/TTL; 100 kΩ pull up	
Compatibility (output)	TTL, 20 mA	
Overvoltage protection	$\pm 30 V_{DC}$ , $50 V_{PEAK}$ (100 ms)	
Sensor power supply (module total)	5 V (600 mA) and 12 V (600 mA)	
Connector	D-SUB-25 socket	
<b>D-SUB-25 Sync OUT specifications</b>		
Functionality	Acquisition clock and trigger output (can be used to sync two systems/enclosures)	
Compatibility (input)	LVTTTL	
Compatibility (output)	LVTTTL, 10 mA	
Overvoltage protection	$\pm 20 V_{DC}$	
<b>Counter specifications</b>		
Number of channels	2 advanced counter or 6 digital inputs	
Counter modes	<ul style="list-style-type: none"> <li>– Waveform timing</li> <li>– Sensor modes</li> <li>– Event counting</li> </ul>	
	Period, frequency, pulse width duty cycle and edge separation	
	Encoder (angle and linear)	
	Basic event counting, gated counting, up/down counting and encoder mode (X1, X2 and X4)	
Compatibility (input)	CMOS/TTL	
Counter resolution	32-bit	
Counter time base	80 MHz	
Time base accuracy	Within DEWE2 system	Typ. 10 ppm; max. 50 ppm
	Within DEWE3 system	Typ. 2 ppm; max. 10 ppm
Maximum input frequency	10 MHz	
Overvoltage protection	$\pm 30 V_{DC}$ , $50 V_{PEAK}$ (100 ms)	
Sensor power supply (module total)	5 V (600 mA) and 12 V (600 mA)	
Connector	LEMO 1B.307	

Tab. 61: TRION-BASE specifications

<b>TRION-BASE specifications</b>	
<b>AUX specifications</b>	
Functionality	Camera trigger, trigger input/output, acquisition clock and programmable clock output
Compatibility (input)	LVTTL
Compatibility (output)	LVTTL, 10 mA
Overvoltage protection	$\pm 20$ V
Connector	SMB socket
<b>Timing specifications</b>	
Input sources	IRIG code B, DC
Input specification	
– Compatibility (DC code)	DC level shift TTL / CMOS compatible
– Impedance	20 k $\Omega$
Output specification	
– Compatibility (DC code)	TTL, 20 mA
Adjustment range	$\pm 150$ ppm
Clock acc. IRIG locked	Without drift
Clock acc. IRIG unlocked	<1 ppm
Isolation voltage	350 V <sub>DC</sub>
Connector	BNC socket
<b>General specifications</b>	
Typical power consumption	5 W
Temperature range	0–50 °C
Weight	Approx. 240 g

Tab. 61: TRION-BASE specifications