TRION-BASE

DEWETRON

- 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		
Digital I/O specifications		
Number of channels	8 DIO + 8 DI	
Compatibility (input)	CMOS/TTL; 100 kΩ pull up	
Compatibility (output)	TTL, 20 mA	
Overvoltage protection	±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	
D-SUB-25 Sync OUT specifications		
Functionality	Acquisition clock and trigger output (can be used to sync two systems/enclosures)	
Compatibility (input)	LVTTL	
Compatibility (output)	LVTTL, 10 mA	
Overvoltage protection	±20 V_{DC}	
Counter specifications		
Number of channels	2 advanced counter or 6 digital inputs	
Counter modes – Waveform timing – Sensor modes – Event counting	 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	±30 V_{DC}, 50 V_{PEAK} (100 ms)	
Sensor power supply (module total)	5 V (600 mA) and 12 V (600 mA)	

Tab. 69: TRION-BASE specifications

TRION-BASE specifications	
Connector	LEMO 1B.307
AUX specifications	
Functionality	Camera trigger, trigger input/output, acquisition clock and programmable clock output
Compatibility (input)	LVTTL
Compatibility (output)	LVTTL, 10 mA
Overvoltage protection	±20 V
Connector	SMB socket
Timing specifications	
Input sources	IRIG code B, DC (B007)
Input specification – Compatibility (DC code) – Impedance	 DC level shift TTL / CMOS compatible 20 kΩ
Output specification – Compatibility (DC code)	 TTL, 20 mA
Adjustment range	±150 ppm
Clock acc. IRIG locked	Without drift
Clock acc. IRIG unlocked	<1 ppm
Isolation voltage	350 V_{DC}
Connector	BNC socket
General specifications	
Typical power consumption	5 W
Temperature range	0–50 °C
Weight	Approx. 240 g

Tab. 69: TRION-BASE specifications