

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 | | |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------|
| 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 | $\pm 30 V_{DC}$, $50 V_{PEAK}$ (100 ms) | |
| Sensor power supply (module total) | 5 V (600 mA) and 12 V (600 mA) | |
| Connector | D-SUB-25 socket | |
| D-SUB-25 Sync OUT specifications | | |
| Functionality | Acquisition clock and trigger output (can be used to sync two systems/enclosures) | |
| Compatibility (input) | LVTTTL | |
| Compatibility (output) | LVTTTL, 10 mA | |
| Overvoltage protection | $\pm 20 V_{DC}$ | |
| Counter specifications | | |
| Number of channels | 2 advanced counter or 6 digital inputs | |
| Counter modes | <ul style="list-style-type: none"> – 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 | $\pm 30 V_{DC}$, $50 V_{PEAK}$ (100 ms) | |
| Sensor power supply (module total) | 5 V (600 mA) and 12 V (600 mA) | |

Tab. 61: 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) | DC level shift TTL / CMOS compatible |
| – Impedance | 20 k Ω |
| 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. 61: TRION-BASE specifications