

## ROTEC Acquisition Boards

### Trigger and Timing Board (E-TR)

This board creates the central time base for all measurement channels and also contains an input for external starting signals (8-pin LEMO, connector compatible to speed board).

- monitoring of operating voltages
- LED for trigger input
- triggering by means of 32 bit DSP
- firmware in RAM
- voltage overload protection

### Rotational Speed Board (E-DR)

These boards measure the periodic times of digital speed signals. One board is required per speed signal. All boards are synchronised by the trigger board.

- single-channel, 8-pin LEMO
- 10 GHz (100 psec) counter / timer
- 40 bit counter size
- TTL-level input signals, voltage overload protection  $\pm 40$  V
- input frequency range from 0.01 Hz to 1 MHz
- input for rotational direction
- 2 additional digital inputs
- provides sensor supply voltage
- start / stop triggering on speed threshold or gradient
- LEDs for inputs
- signal pre-processing by means of 32 bit DSP
- firmware in RAM

### 8-channel Analogue Board (E-AN)

These boards are designed for analogue sampling of the input signal. The trigger board ensures synchronisation of analogue and speed measurements.

- 8 channels, SMB connectors
- max. 50 kHz sampling rate per channel
- 16 bit resolution
- input signals  $\pm 10$ V, differential or current source
- voltage overload protection
- input impedance differential 0.8 MOhm / 150 pF, common mode 0.25 MOhm / 36 pF
- 10 kHz low pass hardware filter, switchable
- separate setting of sampling rate for each channel from 3 Hz to 50 kHz

- programmable amplification 1, 10, 100, 1000
- AC/DC coupling
- start / stop triggering on level or gradient
- LEDs for input voltage overload
- signal pre-processing by means of 32 bit DSP
- firmware in RAM

### 2-channel Analogue Board (E-A2)

These boards are designed for analogue sampling of the input signal. The trigger board ensures synchronisation of analogue and speed measurements.

- 2 channels, SMB connectors
- max. 400 kHz sampling rate per channel
- sampling rate adjustable for each channel from 3 Hz to 400 kHz
- 16 bit resolution
- input signals  $\pm 10$ V, differential or current source, buffer amplifier
- voltage overload protection
- input impedance differential 107 MOhm / 150 pF, common mode 0.25 MOhm / 36 pF
- 40 kHz low pass hardware filter, switchable
- programmable amplification 1, 10, 100, 1000
- AC/DC coupling
- start / stop triggering on level or gradient
- LEDs for input voltage overload
- signal pre-processing by means of 32 bit DSP
- firmware in RAM

