

E302 **TORQSENSE** Advanced Torque Transducer Display Interface



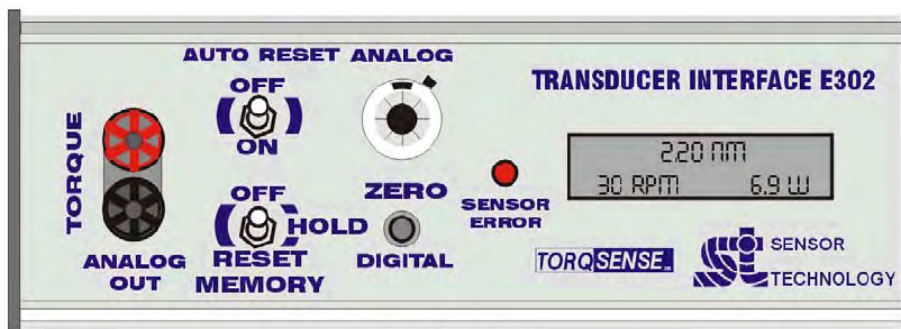
The E302 display interfaces to any of the **TORQSENSE** based rotary torque transducers (for details see data sheet RWT2279R)

TORQSENSE sensors are available to meet all applications and offer long life, small size and low cost. This new advanced surface acoustic wave technology has resulted in the best price/performance of any non-contact rotary torque sensor.

The full-scale range of the transducer connected is automatically detected and programs the display, maintaining system calibration. The system carries out continuous self auditing, any sensor failure is indicated on a front panel LED, and a signal is remotely available. For transducers fitted with RPM encoders, speed and power are also displayed.

The E302 display can operate independently or under control from a remote PC. When used in conjunction with the **TORQVIEW** PC software (see TSE2099R data sheet), many advanced display, limit and recording modes are available.

In addition to the torque data, two external analogue input channels are available to interface with other sensors. (See options list) Peak readings can be displayed and either manually or automatically reset.



Specifications

Electrical

Accuracy	Digital readout $\pm 0.1\%$ Analogue out $\pm 0.25\%$
Resolution	Digital readout 0.1% Analogue out 0.05%
Frequency response	5KHz @ - 3Db standard (other consult factory)
Outputs	
Torque	$\pm 1v$ at front panel, see options for additional outputs. Output impedance less than 50 .
Speed	+ 5v TTL level @ 1Hz per RPM (analog output see option list)
Power	Computed power analog (see option list) Outputs are short circuit protected

Power supply

80-260v AC 50-400Hz 20W IEC connector
DC 11-14v 1 Amp 2.1mm jack reverse polarity protected

Mechanical

Overall size (mm)	220W x 290D x 100H, Aluminium enclosure, fitted with tilt feet
Weight	2.5kg (5lb 10 oz) nominal

Environmental

Operating temperature	0-50°C (32-122°F)
------------------------------	-------------------

E302 **TORQSENSE** Advanced Torque Transducer Display Interface



Available Options

1) Power Supplies

- a. Power input 24v DC

2) Torque Analog Outputs

Analog Output $\pm 1v$ FSD – Standard

- a. Analog Output $\pm 5v$ FSD
 b. Analog Output $\pm 10v$ FSD
 c. Analog Output + 0.5v(fsd ccw)
 + 2.5v(zero) + 4.5v(fsd cw)
 d. 4-20 mA

3) Speed Analog Outputs

Specify RPM FSD Required

- a. RPM Analog +1v for FSD
 b. RPM Analog +5v for FSD
 c. RPM Analog +10v for FSD
 d. RPM Analog 4-20 mA for FSD

4) Power Analog Outputs

Specify Power FSD Required

- a. Power Analog +1v FSD
 b. Power Analog +5v FSD
 c. Power Analog +10v FSD
 d. Power Analog 4-20 mA FSD

5) Serial Outputs

- a. **TORQSENSE**
 b. RS232
 c. Optical Fibre Transmitter For RS232
 d. RS422 Output 4800 baud

6) Auxiliary Inputs

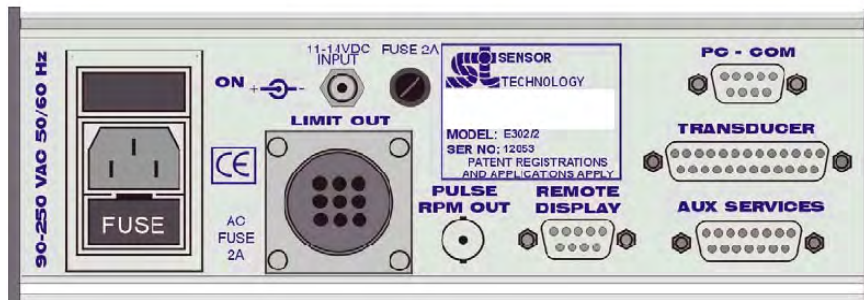
- a. 4-20mA
 b. AC RMS (50-400Hz)
 c. Dual Analog inputs $\pm 1v$
 d. Dual Analog inputs $\pm 5v$
 e. Dual Analog inputs $\pm 10v$

7) External Limit Outputs

- a. Limit output (relay)
 b. Limit output (opto)
 c. Limit output TTL/HC +5v positive logic

8) Extended Cable Driver

- a. Over 40 metres



Full data sheets on all our products are available on our web site at

www.omniinstruments.co.uk



TORQSENSE

Global patents apply
 Product complies with EMC Regulation BS EN 55011

LIFETIME GUARANTEE

These products are warranted against manufacturing defects and component failure for two years from date of purchase, subject to fair wear and tear. This warranty is extended indefinitely if the equipment is returned to us, for annual re-calibration when any updates, if required, will be carried out free of charge

We reserves the right to change specifications & dimensions without notice.

No patent rights or licenses to any products described are implied or granted to any third party.