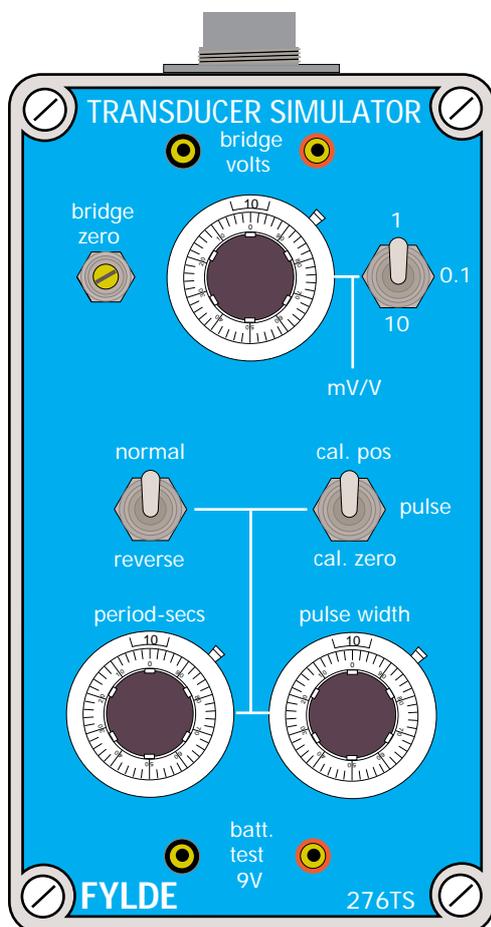


FE-276 - TS Transducer Simulator



- * STATIC AND DYNAMIC TESTS
- * LOW DRIFT
- * INTEGRAL POWER SUPPLY
- * AUTOMATIC ON/OFF SWITCH
- * DESIGNED and PRODUCED in UK

The FE-276-TS Bridge Transducer Simulator is a battery operated signal generator which is designed to simulate the Wheatstone Bridge type transducers which are used extensively throughout industry and in research establishments.

Electrically the unit substitutes for a 4 arm 350 ohm bridge, and develops a balanced low-drift signal source which may be adjusted over a range of signals from 50 microvolts to 100 millivolts. The signal may be static dc either positive or negative, or may be pulsed over a range of pulse rates and with adjustable pulse width.

Pre-set dials are provided for pulse height, pulse width and pulse repetition period, with maximum pulse width of 0.1 seconds. The repetition period is normally variable from 1 second maximum, with a maximum pulse rate approaching 10 per second. The unit is essentially intended to simulate mechanically produced signals and as such it is primarily a low frequency pulse generator simulating micro-strain signals from <10 microstrains to >10,000 microstrains.

The unit is scaled in mV/volt to enable quick conversion to micro-strain levels for strain gauge simulation, but is a direct substitute for many transducers which are calibrated in mV/volt.

Many features have been incorporated to enable precise application, including ten-turn dials and remote bridge volts monitor. Battery life is preserved by using external bridge voltage supply to switch on the internal battery supply only when the system bridge volts are present.

The unit normally has a connector arranged to plug into a FYLDE standard bridge input. (5 Pin Tuchel Connector.)

FE-276-TS BRIDGE TRANSDUCER SIMULATORSPECIFICATION

BRIDGE	arrangement	4 arms, 350 ohm, 0.1% matched 1ppm / °C.
	source resistance	350 ohms
	volts range	1 V - 12 V
	balance range	approximately 1 mV per volt of supply
	volts test	by test points on front panel
SIGNAL RANGES	3 position switch	10 mV/volt, 1 mV/volt, 0.1 mV/volt
	vernier dial	linear adjustment of each range by ten-turn dial down to <10% of each range.
SIGNAL	accuracy	1% of range \pm 1 division polarity reversible by two position switch
	calibration	three position switch checks zero and dc cal generation. Centre position allows pulse generation between zero and cal positive.
PULSE	width	adjustable by ten-turn lockable dial from 100 milliseconds maximum to less than 5 milliseconds. Accuracy is 5% of full scale dial reading \pm 5 divisions.
	repetition	Period adjustable by ten-turn lockable dial from 1 second maximum to less than 0.05 seconds. Accuracy is 5% of full scale dial reading \pm 5 divisions.
BATTERY	internal	9 volt dry cell, PP3 alkaline, switched off by disconnecting the cable or switching off the bridge voltage.
CONNECTOR		5 pin Tuchel or Lumberg socket - mates with standard FYLDE bridge input connector.
DIMENSIONS		case 4.5 in. x 2.5 in. x 2.5 in (115 x 64 x 64 mm) overall size, including controls and connector 7 in x 2.5 in. x 3.25 in (178 x 64 x 73 mm)
WEIGHT		16.5 oz (470g)