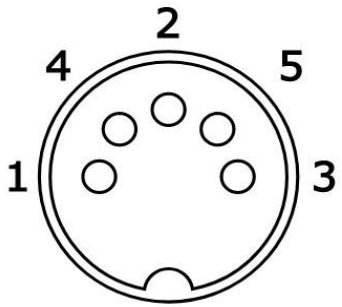
NOTE: **This Calibrator is suitable to confirm the accuracy of tachometers only. A separate test unit is required to verify that Tachometers will work at a specified distance from a target**

WARNING This equipment is class I and must be earthed.



Output Din Connector (front view)

Pin 1	LED Drive (-ve)
Pin 2	Pulse Out (0 — 2.5v)
Pin 3	5v in from "CT" (drives internal LED if present)
Pin 4	LED Drive (+ve)
Pin 5	Ov from "CT" (drives internal LED if present)

MT/EXT

Green = 0v

Yellow = open collector pulse output

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MT25
Tachometer Calibrator

Operating Instruction

Tachometer Calibrator

Model MT25

General description

The MT25 Tachometer Calibrator has all the features required to calibrate any optical tachometer. In addition, the unit is equipped with inputs and outputs which enable the calibration of external VLS series optical sensors and all functions of the connected Tachometer.

Display features & Specification

Display	- LED 5 digit
Display functions	- Auto ranging 0 – 99999 RPM and over range indication. The display will stop at 99999 and flash to indicate the over range condition. If no input pulses are detected the on-target LED will turn off and, after twenty seconds, the display will flash whilst showing the last reading

Strobe output ranges

FPM ranges	- Strobe output (or VLS output) can be varied from 3 to 99,999 FPM in four ranges. 3 – 100 FPM 30 – 1000 FPM 300 – 10,000 FPM 3000 – 100,000 FPM - A ten- turn potentiometer is provided for fine adjustment
Resolution minimum	- ± 1 rpm
Accuracy	- Typical <0.01% ± 1 digit
Timebase	- 0.8 seconds update

Power requirements	**-** 15v DC
Max power rating	- 4.2W

Standard kit – Includes an external LED strobe, Tachometer test lead and 15v 1A universal PSU.

Operation of the Instrument

Calibration of optical tachometers

1 Connect the LED strobe lead (13739) to the DIN **Output** socket. The plug is of a latching type, so the button must be depressed before trying to disconnect it. The LED strobe will fit directly onto the end of a Compact Instruments Ltd tachometer. Other models may be pointed at the LED strobe and the position adjusted until a reading is achieved and the on-target LED is lit.

2 Set the **Display** switch to **Int**. The unit will now display the internally generated strobe frequency in FPM.

3 Using the **FPM Range** and **Fine** controls, the Tachometer under test can be checked for calibration at any required frequency.

Calibration of VLS remote optical sensors

1 Connect the VLS under test to the Calibrator **Ext** jack socket. Fit the LED strobe to end of the VLS and set the **Display** switch to **Ext**.

2 Check that the on-target LED on the calibrator and the green LED on the VLS are illuminated.

4 Using the **FPM Range** and **Fine** controls, the VLS under test can be checked for calibration at any required frequency. By switching the display between **Int** and **Ext** the calibration of the VLS can be verified.

the remote input socket on a Compact Instruments Tachometer

1 The Calibrator is capable of simulating the output of a VLS remote optical sensor. Connect the appropriate test lead (13740) to the DIN **Output** socket and connect the jack plug to the Remote Sensor Socket on the receiving Tachometer.

2 Switch the tachometer on. The red **Ext Power** LED on the front panel should light to indicate that the external sensor supply is present.

3 Using the **FPM Range** and **Fine** controls, the Tachometer under test can be checked for calibration at any required frequency.