DTM-333

3 Axis, 3 Channel Digital Teslameter

With Touchscreen Interface and Data Logger

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Features

The DTM-333 is a new generation of Digital Teslameter/Gaussmeter but includes the same tried and tested reliable technology used in previous versions. The technology and accuracy is the same as the Group3 DTM-133 but in a 3D or 3 Channel environment. We have taken great care to ensure the product is backwardly compatible in all ways. There is no need to buy new probes if you already have some - the DTM-333 can accept all models of Group3 Hall probes.

The new DTM-333 has 2 main operating modes - Axis (3D Mode and Channel Mode. In Axial mode the 3D probe is used (3DT-130 or 3DT-230). This means the Teslameter operates exclusively as a combined 3 axis instrument. When a mode is changed i.e. range is set to 1 then all axis follows similarly when zeroing. In channel mode each channel can be operated independently of the other allowing the user the flexibility of 3 separate channels for 3 separate tasks including being able to use different specification probes. This means the DTM-333 is a very flexible instrument.

DTM-333 performance summary when combined with the listed probe

DTM-333 performance with listed probe	Active area (mm)	Resolution of display	Max field	Finest resolution	Accuracy at 25° C	Tempco ppm /°C	zero drift µT/°C
LPT-130	4 x 1.6	1 in 120,000	3T	50µT	± 0.01%	-80	± 12
LPT-230	4 x 1.6	1 in 12,000	0.3T	5µT	± 0.03%	-620	± 8
MPT-132	1 x 0.5	1 in 12,000	3T	50µT	± 0.03%	-140	± 40
MPT-230	1 x 0.5	1 in 12,000	0.3T	5µT	± 0.03%	-620	± 8

Absolute Accuracy

- 0.03% of reading ± 0.03% of range at 25° C when used with a 3DT-132 probe.

Temperature Stability with 3DT-132 probe

- calibration: -100 ppm of reading / ° C typical.
  -140 ppm of reading / ° C max.
- zero drift: ± (15µ T + 0.0010% of full scale) / ° C typical.
  ± (40µ T + 0.0015% of full scale) / ° C max.
- effect of probe cable: add -3ppm / ° C for each metre of probe cable

Temperature Stability with 3DT-230 probe

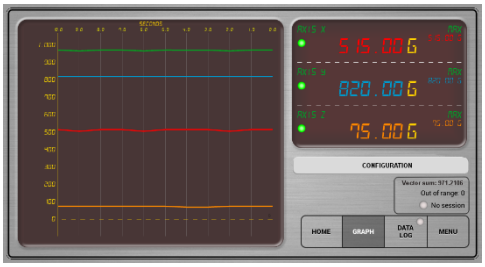
- Calibration: -820ppm of reading/°C max.
- Zero Drift: ±(12µT + 0.0015% of full scale)/°C max.
- effect of probe cable: add -3ppm / ° C for each metre of probe cable

Frequency

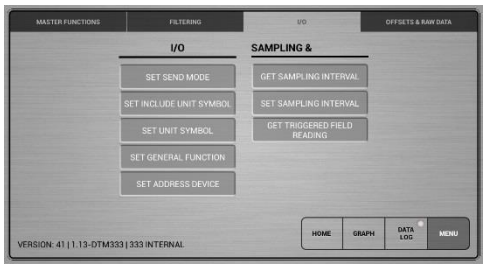
- DC, or in AC mode 8 to 3,000 Hz.

The display is a touch screen environment with an intuitive layout and design. Function buttons are illuminated to show their state. This means the user can see operating modes at a glance.

The DTM-333 had a built in real time graph allowing the user to monitor any fluctuations in the field over time without having to check and analyse streaming data for fluctuations. Obvious noise and robotic movement can be seen at a glance alerting the user to any possible issue with the tasks currently being performed. It is also a useful tool for quick setup before logging any data. The Graph has an adjustable time base of 10 seconds to 6000 seconds. The graph function mirrors that of the settings in the home menu so both Axis and Channel modes are set in the main home screen.



The DTM-333 Master functions menu is for the advanced user needing to access the base function of the Teslameter. These functions remain as part of previous versions of DTM-133 and DTM-151 so legacy users have some tools that identify the functions. They are also useful for displaying uncorrected data on other functions such as letting the user create a custom offset and reading back user zero and calibration factors. All functions of the DTM-133 are present in this menu system allowing the user a level of familiarity and full functionality based on previous models. The menu system is labelled so functions are obvious with intuitive pop-up sub menus.



The DTM-333 has a new and very flexible data logging system. By inserting a Hard Disk drive or Memory stick in any one of the 2 USB ports provided, data logging is instantly available. The system calculates how much logging time you have based on 10Hz output. Even with as little as 2Gb the system can provide 20 days of logging time. Logged data consists of DATE: TIME stamp CHANNEL/AXIS stamp and FIELD per Channel/Axis. Features include instant start logging. This means the user can just press start and logging will begin until cancelled by the user. The system can also do pre-determined timed sessions able to be pre-programmed with start and stop times. Provided there is enough storage then there is no limit to how much data the user can store and when.

The user can adjust the clock at any time so is able to be synchronised to other equipment in the chain. Various data sets present on the storage device can be removed using the touch screen by touching on a session and deleting it. Data sessions are automatically named and no two will ever have the same name. Data is saved in a popular .CSV format and can be instantly converted into graph data without the need for tedious ASCII conversion and data collation.