

Radio Telemetry Display Module

Features



- Driver for remote display
- Fully configurable parameters for RS232/485
- Radio configuration
- 1 year manufacturer's warranty
- Event triggered display
- Internal antenna
- 300 metre / 330 yard range
- Full CE approval
- European and USA licence free radio
- Error free



Introduction

The TDU provides configurable signal processing to convert telemetry data to serial data and/or an optional local display. The serial port output can be used to drive printers, large remote displays, terminal devices as well as PCs and PLCs. Data can be sent to the TDU from remote devices or the TDU can request data. This data can then be processed, formatted and sent to the local display or directed to the serial port. Flexible configuration of header, footer, prefixes, suffixes, and the use of macros and tokens enables multi line data blocks to be sent to a printer or serial device. The TDU has the ability to sum up to 6 values with control over gross and tare which would enable summing of 6 external TSC devices for example. The optional real time clock module will allow data

to be time and date stamped. Optional 8 way digital input and output cards allow interaction and indication (not available with display option). Licence-free radio, offers excellent opportunities to collect measurement data up to a 300 metre /330 yard radius, which enhances the ability to cover large industrial sites with ease. FCC approval is required for use in North America.

The use of the latest radio technology ensures the minimum of local radio interference, high-level circuit utilization and data integrity; this allows for a large number of measurement points to be used on the system, so that very large sites are easily integrated.

Options

Real Time Clock Module

Configurable Local (6 Digit) LED Display

Specifications

Electrical	Minimum	Typical	Maximum	Units
Supply voltage TDU	8		28	V dc
Power supply current TDUDIS (when display is fitted)	8		15	V dc
Power supply current			100	mA
Baud rate	2,400		38,400	baud
Telemetry Data Parameter-License Exempt Protocol ASCII XP				
Radio type transceiver (2 way)			FM	
Modulation - FM half duplex			10	
Data rate		1		Updates/Sec
868 MHz European			20	mW
Power	6		300	Metres
Range			36	
Channels				
915 MHz USA, Canada				
Power			10	mW
Range			120	Metres
Channels			130	

TDUDIS Display

Powering	8 minimum 15V maximum DC
Display	6 digital LED Display, 4 configurable buttons and Indicator LED's
Minimum Display Value	0.00001
Maximum Display Value	199999.
Insert user legends for LED and button identification	

Product Order Codes

TIO-8 (Plug-in modules req)	868MHz (European Frequency) Remote Analogue/Digital input & output to radio transceiver unit, line powered, IP65 cased
TIO-9 (Plug-in modules req)	915MHz (American Frequency) Remote Analogue/Digital input & output to radio transceiver unit, line powered, IP65 cased

For Plug in Modules order codes see above

Physical

Case dimensions	160 x 80 x 55mm
Case materials	Light grey ABS with IP65 cable glands
Terminals	2.5mm, saddle field terminals
Accessibility	All electronics accessible by removing lid

Support Modules

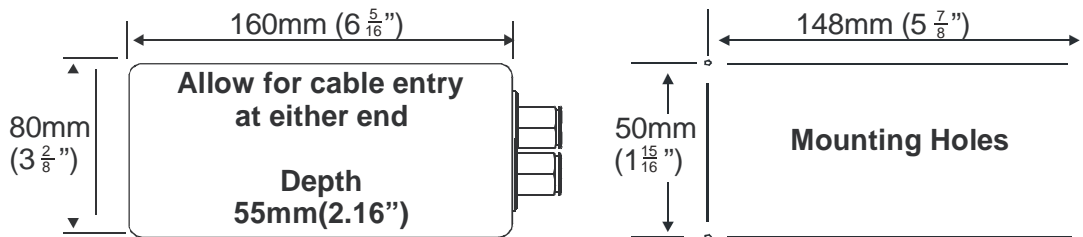
TCM	Radio Telemetry to RS232/485 Converter
TDM	Radio Telemetry Hand Held Display
TIO	Radio Telemetry Input/Output Module
TLC1	Radio Telemetry Strain Gauge or Load Cell Digitiser
TSC	Radio Telemetry Embedded Strain Gauge Digitiser
VisualLink	PC SCADA application

CE & Environmental

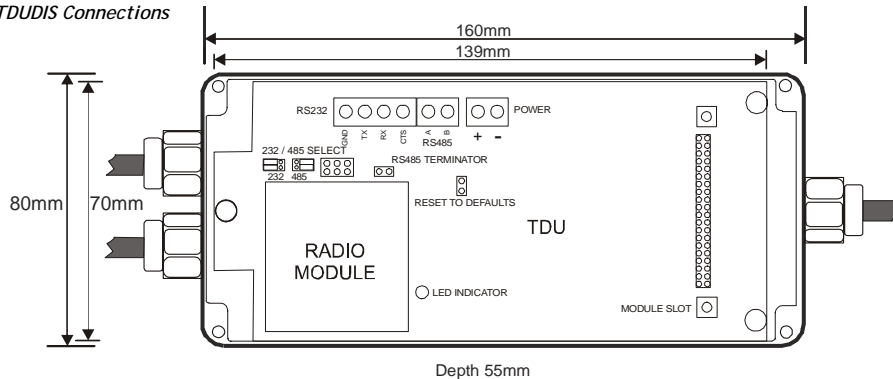
Storage temperature	-40 to +65°C		
Operating temperature	-10 to +50°C		
Relative humidity	95% maximum non condensing	EMC Emissions	BS EN 55011:1998
Safety/Low Voltage Directive	73/23/EEC amended by 93/68/EEC		
	BS EN 61010-1:2001, IEC 1010-1-1990	EMC Immunity	BS EN 61000-42:1995 BS EN 61000-4-3:2002 BS EN 61000-4-4:2004 BS EN 61000-4-11:2004
EMC Directive	89/336/EEC		
	Basic Standard BS EN 61326:1998		

Mechanical Dimensions

TDU Dimensions



TDUDIS Connections



C In the interests of continued product development, Mantracourt Electronics Limited reserves the right to alter product specifications without prior notice.