

Load Cell Radio Telemetry TDM & TSC units

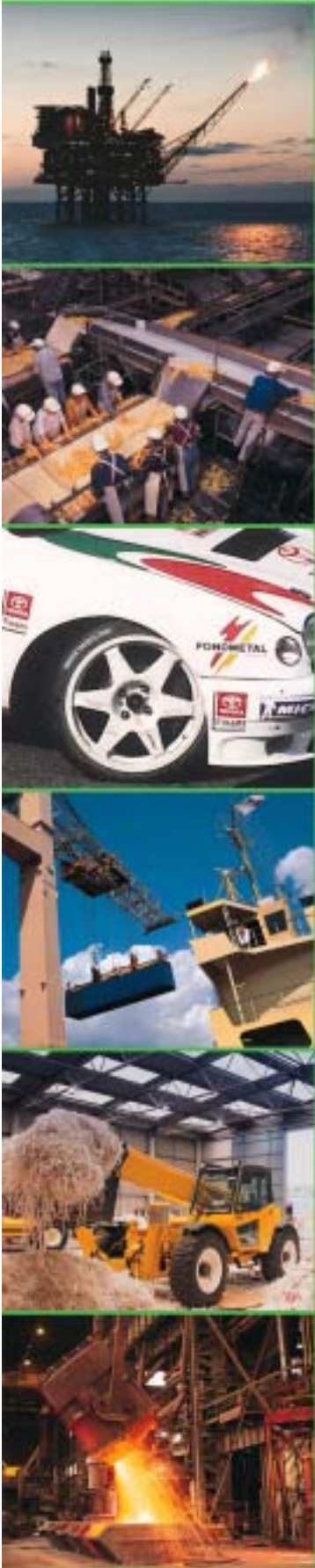


INTRODUCTION

- Completely portable precision indicator.
- Robust IP65 / NEMA 4 enclosure.
- Built with a radio transceiver for communicating with remote telemetry strain devices.
- Reads gross/net and offers peak and trough capture.
- Various calibration modes.

FEATURES

- Powered by internal battery.
- Dual range.
- 7 ½ digit LCD display.
- Can select up to 20 remote instruments.



TDM Specifications: (Indicator)

Telemetry Data Parameter – License Exempt.

PARAMETER	MIN	TYP	MAX	UNITS
Protocol ASCII XP	-	-	-	-
Radio type transceiver (2 way)	-	-	-	-
Modulation – FM half duplex	-	-	FM	-
Data rate	-	1	10	Updates/sec
868 MHz European				
Power	6	-	20	mW
Range	-	-	300	Metres
Channels	-	-	36	-
915 MHz USA, Canada				
Power	-	-	10	mW
Range	-	-	200	Metres
Channels	-	-	130	-

ADDITIONAL INFORMATION	
Display type	7 ½ digit 7 segment LCD display, 8.8mm high
Display resolution	±9.999.999
Annunciations	Local and remote low battery warning, range, error, peak, trough, net
Dimensions	90 x 152 x 34mm (depth)
Weight	250 grms
Legends	Insert labels for engineering unit identification
Operating temperature	-10 to +50°C
Environmental rating	IP65 / NEMA 4
Enclosure type	ABS, dark grey
Power	3V nominal, 2 x AA alkaline

Module Transmits & Receives giving :

1. Full error detection.
2. Ability to switch to low power modes.
3. Calibration & configuration via radio telemetry.
4. Addresses of up to 20 remote TSC.
5. Remote shunt calibrations check.
6. Gross and Net outputs.
7. Remote tare.
8. Remote battery check.
9. Data encryption for complete security.

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Procter & Chester Measurements

TSC Specifications: (Sensor Module)

PARAMETER	MIN	TYP	MAX	UNITS
Non Linearity	-	0.01	0.05	%FSD
Internal Resolution	-	24	-	Bits
Resolution at 1 Hz sample rate	-	250,000	-	Counts/divisions
Resolution at 10Hz sample rate	-	65,000	-	Counts/divisions
Temperature effect on zero	-	0.0002	0.0005	±%FR/°C@2.5mV/V
Temperature effect on span	-	0.0002	0.0005	±%/°C
Offset stability (ac excitation)	-	0.001	0.002	%first month
Gain stability (ac excitation)	-	0.002	0.005	%first month
Common mode imbalance offset	-	0.001	-	FSD (typical)
Common mode imbalance gain	-	0.001	-	FSD (typical)
Excitation voltage (ac)	4.8	5	5.2	Vac/dc
Strain gauge impedance	350	1000	5000	Ohms
Sensor cable length ac excitation	-	-	0.5	Metres
Sensor cable length dc excitation	-	-	10	Metres
Inputs & outputs for option applications	-	-	4	-
Battery Voltage – 2 x alkaline, AA cell 1 x Lithium cells <0.SR internal impedance	2.6	-	4.0	V dc
Power supply current – dependent on power mode	0.01	-	75	mA
Protocol ASCII XP	-	-	-	-
Radio type transceiver (2 way)	-	-	-	-
Modulation – FM half duplex	-	-	FM	-
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ADDITIONAL INFORMATION	
Size	42 x 34.5 x 12mm excluding antenna. Antenna overhangs the pcb by 20mm
Connection	Strain gauge 4 x pads. Power 2 x pads.
Expansion	12 pin header.

CE & ENVIRONMENTAL	
Storage temperature	-40 to 65°C (excluding batteries)
Operating temperature	-10 to +50°C (excluding batteries)
Safety / Low Voltage	73/23/EEC amended by 93/68/EEC to IEC 1010-1:1990, EN61010-1-1993
EMC Directive	89/336/EEC
Emissions	EN 50 081-1 : 1992 (Light Industrial) EN 50 081-2 : 1992 (Heavy Industrial) Pr EN50 093 : 1991
EMC Immunity	EN 50 082-1 : 1992 (Light Industrial) EN 50 082-1 : 1992 (Heavy Industrial)
RF Conformity	ETSI EN300 220 FCC 47 Part 15.249 and 15.247

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PCM produce custom design load cells, therefore we are able to modify the dimension and materials and build to order. PCM's policy is one of continuous improvement. We therefore reserve the right to incorporate technical modifications without prior notification. PCM are an approved ISO9001 manufacturer, Certificate No: 5527.