



Advanced Measurement Solutions

LTM2214 Laser Torque Meter - Technical data sheet

Model:	LTM2214-RM (rugged version)
Electronic Unit:	
Power supply	220Vac approx.20W (115Vac upon request)
Fuse	1A delayed (220Vac, 115Vac)
Display	LCD STN with led backlight, 20 characters x 4 rows (inside case)
Display backlight	adjustable via keypad
Display contrast	trimmer adjustable
Internal clock	crystal RTC, +/-10ppm/month
Digital input	optically insulated pulse fuel consumption: 0/+5V, -5/+5V, 0/12V, -12/+12V, 0/+20mA
Analog input	not insulated fuel consumption: 0/+3.3V, 0/+20mA, 4/+20mA (jumper and keypad selectable current input)
Digital output	n.3 assignable alarm thresholds with 1 pole changeover contacts relay 0.3A 24Vdc (DOUT2 and DOUT3 shared with ETC)
Serial output	a) RS232 9 pin male D type, with selectable speed from 4800 to 921600Baud b) RS422 9 pin female D type, with selectable speed from 4800 to 921600Baud
Commands	keypad (inside the case): MENU (▶), OK (◀), UP (▲), DOWN (▼), ON/OFF
Signalling	a) red led (EOC - end of cycle) internal b) green led (laser pulse reception) internal c) red led (Alarm) internal d) red led (ON) internal
Frame – electronic unit interconnection cable length	a) standard: 12m b) higher lengths upon request
Environmental (with door closed)	Temperature: -10°+50°C Humidity: 10-98% relative non condensating Pressure: 700-1200mbar Acceleration: 4mm/s @ F<=800Hz; 2mm/sec @ F>800Hz Protection degree: IP55 (IP20 with door opened)
Dimensions (LxHxD)	400mm x 400mm x 200mm 15.75in x 15.75in x 7.87in
Weight (kg)	10kg (22.0lb) approx.
Optical Receiver:	
Power supply	(from the electronic unit) 18Vdc (polarity inversion protected) or 18Vac, approx. 0.3A
Signalling	a) red led (ON) on the board b) green led (laser pulse reception) on the board
Adjustment	low pass filter cut frequency
Environmental	Temperature: -10°+50°C (standard version); -20°+ 70°C (extended temperature version) Humidity: 10-90% relative non condensating Pressure: 700-1200mbar Acceleration: 5mm/s @ F<=800Hz; 2.5mm/sec @ F>800Hz Protection degree: IP55
Dimensions (LxHxD)	260mm x 80mm x 74mm 10.24in x 3.15in x 2.91in
Weight (kg)	1.5kg (3.3lb) approx. (standard version); 3kg (6.6lb) approx. (extended temperature version)
Laser Transmitter:	
Laser wavelength	670nm
Laser beam power	1.0mW (Class II)
Beam shape	focused circular/elliptical dot
Focused dot dimension	100um typical
Optics	single element with adjustable focus
Power supply	9Vdc polarity inversion protected, approx. 50mA

Environmental	Temperature: -10°+50°C (standard version); -20°+ 70°C (extended temperature version) Humidity: 10-90% relative non condensating Pressure: 700-1200mbar Acceleration: 5mm/s @ F<=800Hz; 2.5mm/sec @ F>800Hz Protection degree: IP55
Dimensions (LxHxD)	160mm x 58mm x 77mm 6.30in x 2.28in x 3.03in
Weight (kg)	1.5kg (3.3lb) approx. (standard version); 2kg (4.4lb) approx. (extended temperature version)
Frame (exact values must be expressly requested):	
Surface treatment	None (AISI304 stainless steel)
Dimensions (LxHxD)	1320mm x 580mm x 180mm 52.0in x 22.83in x 7.08in
Weight (kg)	38kg (83.6lb) approx.
Frame covers:	
Surface treatment	None (AISI304 stainless steel)
Dimensions (LxHxD)	580mm x 250mm x 130mm 22.83in x 9.8in x 5.1in
Weight (kg)	8kg (17.6lb) approx.
Performance:	
Performance figures measured at:	Temperature: 20°C +/-20% Humidity: 50% +/-20% relative non condensating Pressure: 1013mbar +/-20% Acceleration: 1mm/s @ F<=800Hz; 0.5mm/sec @ F>800Hz
Accuracy (Precision)	<+/-0.7% of read value
Resolution:	+/-1 digit
Repeatability	<+/- 0.7% of read value