

PM500-308 Laptop Universal Optical Probe



Features

- Compatible with virtually all utility meters, registers and recorders that employ ANSI C12.18-1996 and GE OPTOCOM communications protocols
- Designed for use with RS232 and EIA232D communication
- Rugged design with aluminum housing
- Molded cable construction with high-endurance polyurethane
- Powerful retention magnets for attaching to meter's optical port
- Powered by computer's PS/2 mouse port, battery pack or AC adaptor
- Power to probe controlled by switch in probe's head
- Operates over a wide range of temperature (-30° C TO +65° C)
- Polycarbonate filter to enhance infrared (IR) communications

Overview

The **PM500-308 Laptop Optical Probes** are designed for reading and programming electrical power meters employing the ANSI Type 2 optical port. Its optical circuitry supports ANSI C12.18-1996 and GE OPTOCOM communications protocols by switching automatically from one to the other depending on the meter type being read. These probes are specifically configured for use with desktop and laptop computers employing the Serial Communication Ports with DB9 and DB25 connectors and derive power from their PS/2 mouse or keyboard ports.

These series of optical probes are configured with a 64" long coiled cord that extends up to 25 feet. In addition, they are configured with a "DTR" switch mounted on the DB9 connector housing for switching the "DTR" signal "ON" and "OFF" for reading and programming specific meters that require this application. The power to these probes is controlled by a "power switch" mounted in the probes head. When the probe is not in use, the switch turns off and power is conserved, extending the laptop's battery charge. See "PM500-300 Series Laptop Probe Connections".

The PM500-308 utility meter reading probe uses advanced optical sensors to collect meter data and transmit it to the laptop computers. This allows metering data to be recorded more simply, accurately and efficiently.

Mechanical Specifications

Physical Size	Height 2.44"; Length 1.68"; Width 1.38"
Cable Type	Coiled, Polyurethane & Hytrel construction, Flexible & Rugged
Cable Length	64" Coiled, extends to 25'
Connector	DB9 9-pin connector w/ housing and DTR switch; 6-pin mini-DIN (PS/2 mouse/keyboard)
Weight	Complete assembly weighs a max. of 9oz.
Finish	Probe head has a clear anodized outer coating per MIL-A-63576A, Type I

Electrical Specifications

Signal Spec	Serial RS232, EIA232D, V28, V32
Power Req.	Operating Supply Voltage: 4.5 to 6.0 VDC (from Computer's PS/2 port). Power to probe controlled by switch in probe's head.
Data Rate	Controlled by meter for OPTOCOM interface, 0 to 19,200 baud for Non-OPTOCOM meters
Optical	880 nm bi-directional IR interface

Environmental Specifications

Temperature	Operating -30° to 60° C; Storage -40° to +85° C
Ruggedness	Meets the requirements of a number of tests including those for Thermal Shock, Humidity, Water Resistance, RF Susceptibility, ESD, Drop, Random Vibration, Solar Radiation, Salt, Fog & Low Pressure

Compatible Meters

ABB	2550, 2650, All Alpha, Alpha T, A3, Alt, Alr-al, 2430
Aptech/Robinton	LPR1, LPR2, LPR3, SR500, TR403, TR804
General Electric	DR87, KM901, M90-AE, Phase 3, T80, T91, TM80, TM81, TMR82, TM92, KC901, KTC-901, KV, KV2, KV2-C
Siemens (Landis&Gyr)	CTR101, CTR102, DC, DCR, DD, DG100, DT, DX, DXR, SD100, SM101, SM301, TMC101, LINC, DCRMA, DDMA, S4 family, AX series, RX series, MAXSYS 2410, MAXSYS 2510, Quad 4
Metricom	C
PSI	S100, S200, Quad 4
Pwr Measurement	ION 7000 series, 8000 series
Itron (Schlumberger)	Datastar, Fulcrum, MT100, MT200, Quantum, Q1000, Sentinel, Centron, Vectron
Synergistics	B40
Transdata	EMA, Mark V

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