

PM500-212 DAP 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 DAP Technologies MIRCOfLEX PC9500/9800 handheld
- Rugged design with aluminum housing
- Powerful retention magnets for attaching to meter's optical port
- Molded cable construction with high-endurance polyurethane
- 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 **PM500-212 DAP** Optical Probe is designed for reading and programming electric power meters employing the ANSI Type 2 optical port. Its optical circuitry supports ANSI C12.18-1996 and General Electric OPTOCOM communications protocols by switching automatically from one to the other depending on the meter type being read. It can also be configured to read and program through IEC 61107 FLAG-compliant meters. This probe is specifically configured for use with the DAP Technologies Microflex PC9500/9800 and CE5000 Series handheld computers. The probe obtains its power directly from the handheld computer, but the power is controlled by a switch in the head of the probe that automatically activates when the probe is attached to a meter.

The PM500-212 utility meter reading probe uses advanced optical sensors to collect meter data and transmit it to the DAP hand-held computer. This allows metering data to be recorded more simply, accurately and efficiently. In addition, the PM500-212 incorporates a universal compatibility design to read virtually all utility meters, registers and recorders.

**** We recommend special care when attaching the probe connector to the handheld communications port (receptacle) to avoid bending and/or damaging the connector contacts. Please refer to the "DAP Lemo Plug Connections Procedure" to view proper probe connection to handheld. ****

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Mechanical Specifications

Physical Size	Height 2.44"; Length 1.68"; Width 1.38"
Cable Type	Coiled, Polyurethane & Hytrel construction, Flexible & Rugged
Cable Length	18" Coiled, extends to 10'
Connector	LEMO, 7-pin, male, R/A, push-pull mechanism, gold-plated contacts
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	TTL, Handheld Serial port
Power Req.	Operating Supply Voltage: 4.5 to 6.0 VDC (from Computer's host 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, ANSI C12.18 1996, GE OPTOCOM

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