

iP500-212

(PC9500/9800) 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 **Microflex PC9500/9800** and **CE5000 Series** Handhelds
- Push-pull, right angle, Lemo Connector
- Rugged Design with Aluminum Housing
- Molded Cable Construction with High-Endurance Polyurethane
- Powerful Retention Magnets for attaching to Meter's Optical Port
- Polycarbonate Filter to Enhance Infrared (IR) Communications
- Power to Probe controlled by **switch** in Probe's Head
- Operates over wide temperature range (-40° C To +85° C)

Overview

The iP500-212 Optical Probe is designed for reading and programming electric power meters employing the **ANSI Type 2** optical port. This probe is specifically configured for use with the **DAP Technologies Microflex PC9500/9800** and **CE5000 Series** handheld computers. 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. 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 iP500-212 Optical 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 iP500-212 incorporates a universal compatibility design to read virtually all utility meters, registers and recorders.

The iP500-212 Optical Probe solves problems relating to mechanical wear-out due to the demanding environment under which probes are constantly subjected to. We address this problem using the most rugged mechanical and electrical design in the industry. This probe is designed with an almost indestructible aluminum head that contains powerful magnets that ensure a good retention when attached to the meter's optical port. It is also designed with a high-endurance polyurethane molded cable 18" long that withstands the outside rugged environment. This claim is backed with an aggressive warranty and service policy.



WWW.INTELLIPROBE.NET
intelliprobe

Technical Specifications



Mechanical Specifications

Physical size	Height 2.44"; Length 1.68"; Width 1.38"
Cable Type	Coiled, Polyurethane and Hytrel construction, Flexible and 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 maximum of 9 ounces
Finish	Probe head has either a Clear Anodized Outer Coating per MIL-A-68625, Type 2 or a Hard Black Anodized Outer Coating per MIL-A-8625, Type 3

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, GE OPTOCOM

Environmental Specifications

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

Handheld Interface

DAP Microflex PC9500/9800/CE5200 Series

Some Compatible Meters

ABB	2550, 2650, All Alpha, Alpha T, A3, Alt, Alr-al, 2430, others
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, others
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, others
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

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



WWW.INTELLIPROBE.NET
intelliprobe