



MODBUS™ OPTICAL COMMUNICATION MODEMS

INSTALLATION and USERS MANUAL

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PHOENIX DIGITAL CORPORATION

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User's Manual

Document #0740-1403 Rev. D

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CHAPTER 1

DESCRIPTION AND SPECIFICATION

1.1 INTRODUCTION

Phoenix Digital's family of Modicon AEG Modbus Optical Communication Modems (OCM) provide the most advanced, comprehensive, state-of-the-art fiber optic communication capabilities on the market today. Phoenix Digital's OCM modems translate the Modbus electrical interface into an optical network medium, transparent to the communication protocol and configurable for distribution by the user in ring, bus, star, or point-to-point network installations. Fiber optic network options include features not found in even the most expensive communication network installations; on-line diagnostic monitoring with high speed self healing communication recovery around points of failure (Fault Tolerant), in-line signal strength monitoring with annunciation of impending communication failures (Fault Predictive), and wavelength selection for matching fiber media characteristics to enable communication over extended distances. Phoenix Digital makes all of this possible through application of its patented self healing communication switch and advanced optical measurement technologies.

The following table provides correspondence between OCM Model # and Modbus network compatibility. The user should check the OCM Model # label located on the bottom side of the OCM enclosure in order to verify network interface compatibility.

OCM Model #	Network Compatibility
OCM-MOD-xx(1)-E-(2)-(3)-(4)-(5)-(6)	Modbus Communications
	(1) "xx" = 85 for 850 nanometer wavelength selection = 13 for 1300 nanometer wavelength selection (extended distance)
	(2) "D" = Fault Diagnostic Outputs blank = No Fault Diagnostic Outputs
	(3) "ST" = ST Fiber Optic Connector Style "SMA" = SMA Fiber Optic Connector Style
	(4) "24V" = 24VDC Operation "125V" = 125VDC Operation blank = 110/220VAC, 50/60Hz Operation
	(5) "SM" = Singlemode Operation (Available with 1300nm Wavelength and ST Connector Options Only) blank = Multimode Operation
	(6) "422" = RS-422 Communications (Consult Appendix A) blank = RS-232-C Communications

