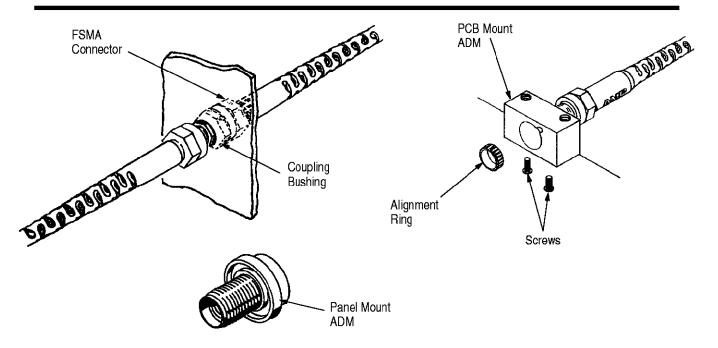




# OPTIMATE\* Active Device Mounts and Coupling Bushings for FSMA Fiber-Optic Connectors

Instruction Sheet 408–9082 (was IS 9082) 19 DEC 01 Rev A



PART NUMBER	KIT TYPE	MOUNTING	MATING PACKAGE	KIT HARDWARE INCLUDED				
				DUST CAP	O-RING	JAM NUT AND LOCKWASHER	NO. 2-56 SCREWS	ALIGNMENT RING
501049–1	Coupling Bushing	Panel		2		1 Each		_
501050–1		Panel		2	1	1 Each		_
501052-1	ADM	Panel	TO-18, TO-46, TO-52	1		1 Each		1
501055–1		PCB/Panel		1		1 Each	2	1
502136–1		PCB/Panel		1		1 Each	2	1
502136–2		PCB/Panel		1		1 Each	2	1

Figure 1

#### 1. INTRODUCTION

This instruction sheet covers the AMP OPTIMATE active device mounts (ADM) and coupling bushings, listed in Figure 1, which are used with FSMA 905 (Type I) and FSMA 906 (Type II) fiber-optic connectors.



Dimensions on this sheet are in millimeters [followed by inch equivalents in brackets]. Figures and illustrations are for identification only and are not drawn to scale.

Reasons for reissue are provided in Section 5, REVISION SUMMARY.

#### 2. DESCRIPTION

Coupling bushings are used to make fiber-to-fiber connections between two FSMA connectors. Two versions are available; one version has an O-ring for sealing, the other version does not. All bushings are supplied with a nut and a lockwasher for panel mounting.

ADMs house active devices, such as sources and detectors, and mate them with optical fibers that are terminated with FSMA connectors. ADMs are available in three mounting styles:

- Panel mount
- Printed-circuit (pc) board mount
- Printed-circuit board mount with panel flange for either pc board or panel mounting



All ADMs are supplied with an alignment ring that fits around the active device to center it in the mount. The maximum recommended panel thickness is 1.575 mm [.062in.]. Figure 1 lists the hardware supplied with the various ADMs.

The ADMs accommodate active devices packaged in TO-18/TO-46/TO-52 cans and have a slot that matches the tab on the can to provide consistent orientation of the device in the ADM.

Figure 2 provides the dimensional information for the bushings and ADMs that is required for planning pc board layouts or panel cutouts.

#### 3. ASSEMBLY AND INSTALLATION

### 3.1. Coupling Bushings

- 1. If an O-ring is needed, seat the O-ring in the grooved flange of the bushing.
- 2. Install the bushing in the cutout and secure it with the lockwasher and nut.
- 3. Connect the FSMA connectors to the bushing. The FSMA 906 (Type II) connector requires the installation of the long alignment sleeve that is supplied with the connector.

#### 3.2. ADMs



The active device can be installed on, and soldered to, the pc board either before or after it is placed in the ADM. Make sure that your choice is compatible with other assembly considerations.

- 1. Place the alignment ring around the active device and insert it into the rear of the ADM. Make sure that the tab on the device is in the slot of the ADM.
- 2. Secure the ADM to its mounting as follows:

- <u>Panel Mounting</u>: Install the ADM into the cutout and secure it with the lockwasher and nut
- <u>PC-Board Mounting</u>: Secure the ADM to the board with the mounting screws.
- 3. Connect the FSMA connector to the ADM. The FSMA 906 (Type II) connector requires the short alignment sleeve that is supplied with the connector.

#### 4. REPLACEMENT

Order additional FSMA coupling bushings and ADMs through your Tyco Electronics representative, or call 1–800–526–5142, or send a facsimile of your purchase order to 717–986–7605, or write to:

CUSTOMER SERVICE (38–35)
TYCO ELECTRONICS CORPORATION
P.O. BOX 2608
HARRISBURG, PA 17105–3608

#### 5. REVISION SUMMARY

Since the previous release of this document, the following changes were made:

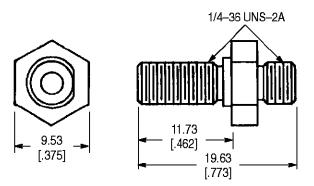
Per EC 0990-1641-01

- Updated document to corporate requirements
- Removed obsolete part numbers in Figure 1 and updated artwork
- Added 905 to FSMA 905 (Type I) and 906 to FSMA 906 (Type II)
- Updated dimensions, added part numbers, and added Coupling Bushing 501050–1 artwork in Figure 2
- Removed all references to ADM panel mount with O-ring seal

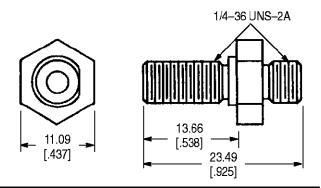
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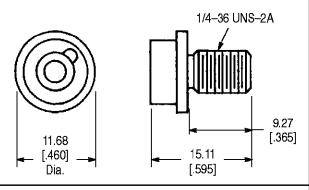
## Coupling Bushing 501049-1



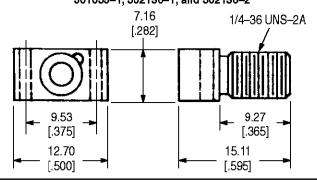
## Coupling Bushing 501050-1



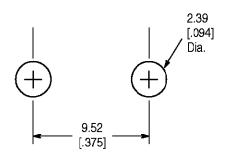
ADM Panel Mount 501052-1



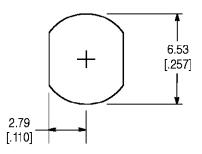
ADM PCB Mount and PCB Panel Mount 501055-1, 502136-1, and 502136-2



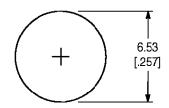
Suggested Footprint for PCB ADM 501055-1, 502136-1, and 502136-2



Suggested Clearance Hole for PCB and Panel Mount ADM 502136–1 and 502136–2



Suggested Clearance Hole for PCB and Panel Mount ADM 501055-1



Suggested Clearance Hole for Bulkhead-Mount Coupling Bushing and Panel Mount ADM 501049-1, 501050-1, and 501052-1

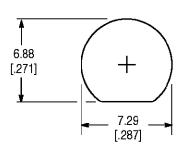


Figure 2

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