

**TEXAS DEPARTMENT OF TRANSPORTATION
DEPARTMENTAL SPECIFICATION
TO-3056
FLASH TRANSFER RELAY**

1.0 SCOPE

This specification describes the minimum acceptable requirements for a Flash Transfer Relay. The Flash Transfer Relay shall be utilized in Solid State, Traffic Signal Controller Assemblies. Products provided under this specification are limited to those listed on the most recent TxDOT Qualified Products List.

2.0 ELECTRICAL AND MECHANICAL REQUIREMENTS

- 2.1** All Flash Transfer Relays shall meet all environmental requirements defined in Section 6.4 of NEMA Standards Publication TS2-1998.
- 2.2** All Electromechanical Flash Transfer relays shall be the plug-in type manufactured by Midtex (Part No. 136-62T3A1) or AEMCO (Part No. 136-4992), or equivalent. The relays shall meet all of the mechanical and electrical requirements defined in Section 6.4 of NEMA Standards Publication TS2-1998. In addition, the relays shall have contacts a minimum of 3/8" diameter in size and shall be rated at a minimum of 20 Amps 120/240 VAC, 20 Amps 28 VDC.
- 2.3** All Solid State Flash Transfer Relays shall be the plug-in type manufactured by ACT Electronics (Part Nos. 91ACN or 92ACN) or equivalent. The relays shall meet all applicable mechanical and electrical requirements defined in Section 6.4 of NEMA Standard Publication TS2-1998 and shall provide all the functionality of the electromechanical relays. In addition, two LED indications shall be provided on the front of the unit to indicate the state of each channel.
- 2.4** If the proper operation of the solid state relay is dependent upon the application of AC+ to a specific pin, there shall be labeling on the top of the product stating to which pin the AC + should be applied. The labeling shall be clearly noticeable and easily read by the user.

3.0 PACKAGING

The Flash Transfer relays shall be packaged in quantities of 10 units per box.

4.0 WARRANTY

The manufacturer shall provide a warranty against any defect in material or workmanship, for a period of two years, from the date of final acceptance by TxDOT.

5.0 MEASUREMENT

Measurement shall be made on each complete Flash Transfer Relay as specified in the invitation for bids.

6.0 DOCUMENTATION

Products that are on the most recent TxDOT Qualified Products List (QPL) will require no additional product documentation. Products being submitted for addition to the QPL shall submit an independent lab report showing the product has been tested and meets all of the requirements of Section 6.4 of NEMA Standards Publication TS2-1998.