File E184763
Project 96NK33509

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REPORT

on

COMPONENTS - TERMINAL BLOCKS FOR USE IN CLASS I, ZONE 0, 1, AND 2 HAZARDOUS LOCATIONS

WEIDMULLER INTERFACE GMBH & CO
DETMOLD, GERMANY

DESCRIPTION

PRODUCT COVERED:

*USR, CNR Terminal Blocks, Type EK-2.5N, -4, -10, -16, and -35 for use in Class I, Zone 1, AEx e II and Class I, Zone 1, Ex e II Hazardous Locations.

GENERAL:

These are rail mounted terminals having a terminal assembly recessed into a molded insulation housing. A tin/lead electroplated brass or copper current bar is fixed centrally across the housing with a sliding zinc plated steel clamping yoke and clamping screw located at both ends of the bar. A stainless steel spring clip is recessed into the foot of the housing to provide a clip-on locking device for mounting onto a carrier rail.

For factory and field wiring unless otherwise indicated.

RATINGS:

Type	Voltage V	Current A	Wire Range, AWG - Copper	Torque lb-in.
EK 2.5N	-	20	22-12, 26-12 (Factory only)	7
EK 4	-	20	22-12 26-12 (Factory wiring only)	20
EK 10	-	50	14-8	20
EK 16	-	65	10-6	20
EK 35	-	100	6-2	20

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

USL indicates products Recognized in accordance with the following Standards for use in the United States:

UL 1059 - Terminal Blocks.

UL 60079-0 - Electrical Apparatus for Explosive Gas Atmospheres – Part 0: General Requirements. **Fifth** Edition.

UL 60079-7 - Electrical Apparatus for Explosive Gas Atmospheres – Part 7: Increased Safety "e". Second Edition.

CNR indicates products Recognized in accordance with the following Standards for use in Canada:

CAN/CSA-E60079-0:02 Electrical Apparatus for Explosive Gas Atmospheres – Part 0: General Requirements

CAN/CSA-E60079-7:03 Electrical Apparatus for Explosive Gas Atmospheres - Part 7: Increased Safety 'e'

C22.2 - No. 14 - Industrial Control Equipment.

Conditions of Acceptability -

1. **The** insulating bodies are molded as described in File E60693, Vol. 1, Sec. 9, Report dated February 9, 1977, and have a temperature index of 105°C. **The terminals were assessed for a minimum service temperature of no less than -55°C and a maximum service temperature of no greater than +80°C.** The use of this material shall be judged in the end-use application.

2. **The** terminal blocks were evaluated for use in an enclosure with a minimum rating of IP54. The suitability of the end application enclosure shall be considered **with regards to providing a type of protection equal to or greater than the increased safety terminals themselves.**

3. .

4. **Resistance to light which has not been covered as part of the recognition. Evaluation for resistance to light shall be addressed in end product use.**

5. **The** temperature code is to be determined as part of the end-use application.

6. **For** the terminals installation, the suitability of the carrier rail shall be determined in the end application.

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7. Any cross connected terminal assembly fitted with jumper bar must be mounted on the 32 mm carrier rail between plastic partitions.

8. Except when shown in a certificate as being internal wiring of apparatus, the suitability of more than one field wiring termination per cage clamp shall be determined in the end application.

9. Leads connected to the terminals shall be insulated for the appropriate voltage and this insulation shall extend to within 1 mm of the metal of the terminal throat.

10. All terminal screws, used and unused, shall be tightened down.

11. When used in a general purpose junction box or marshalling box the need for overload protection of the wiring shall be considered in the end product.

12. The voltage rating shall be determined in the end-use.

MARKING:

The markings of the terminal blocks shall include:

1. The **listee's** name or trademark.

2. The type number.

3. The designation AEx e II T6 and Ex e II T6 (may appear on smallest container).

4. The wire range, tightening torque, ampere, and voltage ratings - to be specified in descriptive documents provided with the terminals or on smallest unit container.

SPACINGS:

Spacings were evaluated in accordance with UL 60079-7 Secs. 4.4 and 4.5.