

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
N/C	INITIAL RELEASE PER ECN T-6656	06-11-86	IM
A	REVISED PER ECN T-7140	10-30-86	IM
B	REVISED PER ECN T-7302	01-05-87	IM
C	REVISED PER ECN T-7637	4/9/87	<i>[Signature]</i>
D	REVISED PER ECN T-18355	7-15-93	<i>[Signature]</i>

INTERCONNECTION SYSTEMS DIVISION
ENGINEERING STANDARD

ES 61401

LABEL SPECIFICATION
DATA BUS PRODUCT

DO NOT SCALE THIS DRAWING		DRAWN KK 6-18-86 CHECKED <i>PD</i> 7-16-93 APPROVED <i>[Signature]</i> 4/9/87 APPROVED APPROVED		Raychem RAYCHEM CORPORATION 300 CONSTITUTION DRIVE MENLO PARK, CALIFORNIA 94025	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND TOLERANCES ARE: .XXX : ± .XX : ± : ±		TITLE ENGINEERING STANDARD LABEL SPECIFICATION DATA BUS PRODUCT			
MATERIAL		PART NO.		SIZE A	CODE IDENT. NO. 08080
FINISH		PROJECT		SCALE	WEIGHT
				DWG. NO. ES 61401	
				SHEET 1 OF 9	

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REVISION REFERENCE PAGE

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1. SCOPE

- 1.1 This specification covers the general requirements for the labels used in multiplexed data bus couplers, terminators and other related products.

2. APPLICABLE DOCUMENTS2.1 Government Documents.2.1.1 Specifications.Military

MIL-STD-130F - Identification Marking of U.S. Military Property.

2.2 Other Documents. See Appendix A for individual specifications.2.3 Order of Procedure. In the event of a conflict between test of this specification and the references cited herein, the text of this specification shall take precedence.3. REQUIREMENTS3.1 Specification Sheets. The individual item requirements shall be as specified herein and in accordance with the applicable specification sheets. In the event of any conflict between requirements of this specification and the individual specification, the latter shall govern. The following information shall appear on each individual specification sheet:

- a. Raychem part number.
- b. Overall dimensions.
- c. Label content.
- d. Location of information.
- e. Any other requirements in addition to or different from this specification.

3.2 Materials. Materials shall be as specified herein. However, when a definite material is not specified, material shall be used which will enable the labels to meet the performance requirements of this specification and the applicable individual specification (see 3.1). Acceptance or approval of any constituent material shall not be construed as a guarantee of acceptance of the finished product.3.2.1 Label. Label shall be made with silver Mylar™ (polyester) with permanent pressure-sensitive adhesive backing.

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- 3.2.2 Carrier. Carrier medium shall be die-cut for release backing with computer pin feed and perforated for fan folding. The minimum distance from the left sprocket hole to right sprocket hole shall be 1.5 inches.
- 3.2.3 Finish. Label shall be coated with matte-finish-writable coating.
- 3.2.4 Material Thickness. Label shall be .003-.005 inch thick including the finish coating.
- 3.2.5 Suggested Source of Supply. Labels shall be obtained from:
- CelloTape Corp. (Cage Code 8J977)
48633 Warm Springs Blvd.
Fremont, California 94539
- Part Numbers: Constructed from Flexcon, Comucal II, MM-200-SM,
MT/C-329123, SP50K-S
or
Constructed from Flexcon, MM-200-S, T/C-200L23,
SP50K-8 laminated to Flexcon, Compucal II, PM-200-C,
MT/C-329L23, SP50K-8
- 3.3 General Marking.
- 3.3.1 Label Spacing. Label spacing on the carrier paper shall be such that the distance from the top edge of one label to the top of the following label shall be based on eight lines per inch, computer printer spacing.
- 3.3.2 Character Height.
- Part Description (data bus coupler, etc.): .063 inch
Connector Number (J1, J2, etc.): .060 inch
Connector Description (stub, bus, A, B, etc.): .050 inch

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- 3.3.3 Type of Lettering. Type of lettering shall be in accordance with MIL-STD-130F, paragraph 4.10.
- 3.3.4 Logo. Standard Raychem logo shall be used. Consult Raychem purchasing organization for artwork.
- 3.3.5 Corner Radii. The labels shall have .06-inch minimum corner radii.
- 3.3.6 Date Code.
- 3.3.6.1 Location. The location of date code shall be shown as "YYWW" on the label specification.
- 3.3.6.2 Information. The "YY" of the date code shall be the last two digits of the year of manufacture. The "WW" of the date code shall be the number of weeks since the beginning of the year of manufacture.
- 3.3.6.3 Application Technique. The date code shall be typed on the label using a dot matrix printer or typewriter. The preferred technique shall be the former.
- 3.3.6.4 Size. The size of characters shall be as follows:
- | | |
|---------------------|--|
| Dot matrix printer: | Nom. height: .10 inch
Pitch: 17 characters per inch |
| Typewriter: | Gothic style; 12 pitch |

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- 3.3.6.5 Application Activity. The date code shall be printed or typed by Raychem at the time of manufacture or at a convenient time thereafter prior to shipping of the product.
- 3.3.7 Lot Number.
- 3.3.7.1 Location. The location of lot number shall be shown as "XXXXXX" on the label specification.
- 3.3.7.2 Information. The "XXXXXX" shall be 6 digit numerical lot number assigned by Quality Assurance Organization.
- 3.3.7.3 Application Technique. Lot number shall be applied per paragraph 3.3.6.3.
- 3.3.7.4 Size. Size shall be per paragraph 3.3.6.4.
- 3.4 Performance.
- 3.4.1 Permanency and Legibility. Permanency and legibility shall be in accordance with MIL-STD-130F, paragraph 4.3.
- 3.4.2 Deleterious Effect. Materials used in the label shall not adversely affect the life and utility of the item which the label is used on.
- 3.4.3 Fluid Resistance. When samples are tested per Table I, there shall be no visual evidence of damage such as delamination, bubbles, crack, loss of information, etc., to the label.
- 3.5 Workmanship. Labels shall be processed in such a manner as to be consistent in quality; they shall be free of defects that would impair the proper function of label and appearance of the final product.

4. QUALITY ASSURANCE PROVISIONS

Inspection and testing shall be performed per Raychem ISD standard operating procedures.

5. NOTE

- 5.1 Substitution of Material. The following labels may be used when the material as specified in the individual label marking slash sheet ("Material Used" column) is not available. All preprinted information as shown on the material specified in the "Material Used" column must be typed on the approximate location in addition to the information normally to be typed per each slash sheet.

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- 5.1.1 D-095-13-01-07 may be used for: D-095-13-01-03
D-095-13-01-04
D-095-13-01-09
D-095-13-01-28
D-095-13-01-29
D-095-13-01-30
- 5.1.2 D-095-13-01-25 may be used for: D-095-13-01-12
D-095-13-01-15
D-095-13-01-16
D-095-13-01-17
D-095-13-01-18
D-095-13-01-27
- 5.1.3 D-095-13-01-26 may be used for: D-095-13-01-19
D-095-13-01-20
D-095-13-01-21
D-095-13-01-23
D-095-13-01-24

TABLE I. FLUIDS RESISTANCE TEST

Test Sequence	Test Fluid	Test Method
#1	Coolanol 25 Coolant*	Condition sample in oven at +135°C for 30 minutes. Then immerse sample for 5 minutes in the test fluid at room temperature. Drain sample for 1 hour minimum at room temperature. Repeat this test two more times.
#2	JP-4 Turbine Fuel	Condition sample in oven at +39°C for 30 minutes. Then immerse sample for 5 minutes in the test fluid at room temperature. Drain sample for 1 hour minimum at room temperature. Repeat this test two more times.
#3	JP-5 Turbine Fuel	Same as #2.
#4	JET-A1 Turbine Fuel	Same as #2.
#5	MIL-H-5606 Hydraulic Fluid	Same as #1.
#6	MIL-L-7808 Lubricating Oil	Same as #1.

*Synthetic Silicate Ester Base Dielectric Fluid

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APPENDIX A

INDIVIDUAL SPECIFICATION

<u>Part Number</u>	<u>Applicable Slash Sheet</u>
D-500-0251	ES 61401/2
D-500-0253	ES 61401/2
D-500-0255-000	ES 61401/1
D-500-0255-000-M1	ES 61401/1
D-500-0255-000-M2	ES 61401/1
D-500-0255-000-M4	ES 61401/1
D-500-0255-001	ES 61401/1
D-500-0255-002	ES 61401/1
D-500-0255-002C	ES 61401/1
D-500-0255-003	ES 61401/1
D-500-0255-004	ES 61401/1
D-500-0255-006	ES 61401/1
D-500-0255-006C	ES 61401/1
D-500-0255-007	ES 61401/1
D-500-0255-008	ES 61401/1
D-500-0255-009	ES 61401/1
D-500-0255-012	ES 61401/1
D-500-0255-012C	ES 61401/1
D-500-0255-013	ES 61401/1
D-500-0255-014	ES 61401/1
D-500-0255-016	ES 61401/1
D-500-0255-017	ES 61401/1
D-500-0255-017C	ES 61401/1
D-500-0255-018	ES 61401/1
D-500-0255-019	ES 61401/1
D-500-0255-020	ES 61401/1
D-500-0255-022	ES 61401/1
D-500-0255-023	ES 61401/1
D-500-0255-024	ES 61401/1
D-500-0255-025	ES 61401/1
D-500-0255-026	ES 61401/1
D-500-0255-027	ES 61401/1
D-500-0255-028	ES 61401/1
D-500-0255-029	ES 61401/1
D-500-0255-030	ES 61401/1
D-500-0255-032-M1	ES 61401/1
D-500-0255-038-M1	ES 61401/1
D-500-0255-038-M2	ES 61401/1
D-500-0255-041	ES 61401/1
D-500-0255-042	ES 61401/1
D-500-0255-044	ES 61401/1
D-500-0255-203	ES 61401/4
D-500-0255-212	ES 61401/3
D-500-0255-213	ES 61401/3
D-500-0255-214	ES 61401/3

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APPENDIX A (Continued)

INDIVIDUAL SPECIFICATION

<u>Part Number</u>	<u>Applicable Slash Sheet</u>
D-500-0255-415	ES 61401/4
D-500-0255-416	ES 61401/4
D-500-0255-600	ES 61401/4
D-500-0255-601	ES 61401/4
D-500-0255-604	ES 61401/4
D-500-0255-606	ES 61401/4
D-500-0255-607	ES 61401/4
D-500-0255-609	ES 61401/3
D-500-0255-610	ES 61401/3
D-500-0255-611	ES 61401/4
D-500-0256-001-M1	ES 61401/1
D-500-0256-001-M2	ES 61401/1
D-500-0263-000	ES 61401/1
D-500-0263-002	ES 61401/1
D-500-0263-006	ES 61401/1
D-500-0263-009	ES 61401/1
D-500-0263-012	ES 61401/1
D-500-0263-017	ES 61401/1
D-500-0263-037	ES 61401/1
D-500-0263-038-M1	ES 61401/1
D-621-0030	ES 61401/5
D-621-0101	ES 61401/5
D-621-0103	ES 61401/5
D-621-0104	ES 61401/5