

SPECIFICATION CONTROL DRAWING

44/242X

Title

TWO CONDUCTOR, FLAT BRAID SHIELDED, JACKETED,
LIGHTWEIGHT, OUTER SPACE, 600 VOLT

Date

04-30-03

Revision

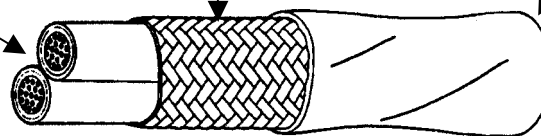
J

This specification sheet forms a part of the latest issue of Raychem Specification 44 and MIL-W-81044.

COMPONENT WIRES – 44/041X

SHIELD – TIN-COATED COPPER

JACKET – RADIATION-CROSSLINKED,
MODIFIED PVF₂



CABLE CONSTRUCTION DETAILS

PART NUMBER 1/	CONDUCTOR SIZE (AWG)	SHIELD SIZE (in.)	JACKET THICKNESS (inches)		OUTSIDE DIAMETER (inches)		MAXIMUM WEIGHT (lb/1000 ft.)
			MINIMUM	NOMINAL	NOMINAL	MAXIMUM	
44/242X-26-*	26	.0015 X .013	.006	.008	.089	.094	5.9
44/242X-24-*	24	.0015 X .013	.006	.008	.101	.106	7.8
44/242X-22-*	22	.0015 X .013	.006	.008	.115	.121	10.5
44/242X-20-*	20	.0015 X .013	.006	.008	.131	.137	14.4
44/242X-18-*	18	.0015 X .013	.006	.008	.151	.157	20.3
44/242X-16-*	16	.0015 X .013	.006	.008	.165	.172	24.2
44/242X-14-*	14	.0015 X .013	.007	.009	.197	.202	36.0
44/242X-12-*	12	.0015 X .013	.007	.009	.241	.247	54.5

TABLE II. CABLE PERFORMANCE DETAILS

PART NUMBER 1/	BEND TESTING				
	MANDREL DIAMETER (inch) (±3%)			WEIGHT (lb) (±3%)	
	RADIATION RESISTANCE	LIFE CYCLE, IMMERSION AND ACCELERATED AGING	COLD BEND	LIFE CYCLE, IMMERSION AND ACCELERATED AGING	COLD BEND
44/242X-26-*	2.50	3.00	3.00	.125	1.50
44/242X-24-*	2.75	3.00	3.00	.185	1.50
44/242X-22-*	3.25	3.00	3.00	.185	3.00
44/242X-20-*	3.50	6.00	6.00	.185	3.00
44/242X-18-*	4.25	6.00	6.00	.250	3.00
44/242X-16-*	4.50	6.00	6.00	.250	3.00
44/242X-14-*	5.50	6.00	6.00	.500	9.00
44/242X-12-*	7.00	6.00	6.00	.500	9.00

CABLE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 135°C

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms) at sea level

ACCELERATED AGING: 225 ± 3°C for 6 hours

BLOCKING: 150 ± 2°C for 6 hours

DIELECTRIC WITHSTAND: 2500 volts (rms), 60 Hz, 1 minute

FLAMMABILITY: 30 seconds (maximum); 3 in. (maximum);

no flaming of facial tissue

JACKET COLOR: White preferred

JACKET ELONGATION AND TENSILE STRENGTH:

Elongation, 200% (minimum)

Tensile Strength, 4000 lbf/in² (minimum)

JACKET FLAWS:

Spark Test, 1.5 kV (rms), 100% test

Impulse Dielectric Test, 6.0 kV (peak), 100% test

LIFE CYCLE: 200 ± 3°C for 120 hours

LOW TEMPERATURE-COLD BEND: -65 ± 2°C for 4 hours

RADIATION RESISTANCE: 500 megarads

SHIELD COVERAGE: 90% (minimum)

VACUUM STABILITY: Total Mass Loss, 1.0% (maximum)

Volatile Condensable Material, 0.1% (maximum)

VOLTAGE WITHSTAND TEST (POST ENVIRONMENTAL) :

1000 volts (rms), 60 Hz, 1 minute

PART NUMBER:

The "X" in the part numbers above shall be replaced by the applicable conductor material designator as follows:

- 1 tin-coated copper
- 2 silver-coated copper
- 3 nickel-coated copper
- 4 silver-coated high strength copper alloy (AWG's 26 - 20 only)
- 6 nickel-coated high strength copper alloy (AWG's 26 - 20 only)

The "*" in the part numbers above shall be replaced by a color code designator with a slash separating the component wire colors and a dash separating the component wire colors from the jacket color.

1/ Example: AWG 20, tin-coated copper; black and brown component wires; white jacket: 44/2421-20-0/1-9

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice.

Tyco Electronics also reserves the right to make changes in materials or processing, which do not affect compliance with any specification, without notification to Buyer.

1/ COLORS AND COLOR CODE DESIGNATORS SHALL BE IN ACCORDANCE WITH MIL-STD-681. HOWEVER, DUE TO LENGTH LIMITATIONS OF THE RAYCHEM PART NUMBER, AN ALTERNATIVE COLOR CODE MAY REPLACE MIL-STD-681 COLOR CODE DESIGNATORS. (EXAMPLE: "901/902..." MAY BE REPLACED BY "Axxx".) OTHER CODES AND SUFFIXES MAY BE ADDED TO THE PART NUMBER, AS NECESSARY, TO CAPTURE ANY ADDITIONAL REQUIREMENTS IMPOSED BY THE PURCHASE ORDER.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[TE Connectivity:](#)

[44/2421-20-2/6-9CS024](#)