

# MV Type #: 7

- 1) CONSTRUCTION: NOM. DIA.
- CONDUCTOR: 24 AWG 7/32 STRANDED TINNED COPPER .0236" .046"
- INSULATION: HIGH DENSITY POLYETHYLENE, .011" NOM. WALL THICKNESS .092"
- PAIRS: COLOR CODED SINGLES TWISTED INTO PAIRS .228"
- CABLE: 4 TWISTED PAIRS TWISTED TOGETHER WITH A CENTRAL SPLINE AND WRAPPED WITH A FOAM POLYPROPYLENE TAPE TO FORM A CABLE CORE. .228"
- SHIELDS: AN OVERALL SHIELD OF 38 AWG TINNED COPPER BRAID (75% MINIMUM COVERAGE), SHALL BE APPLIED OVER THE CABLE CORE. A SECOND SHIELD OF ALUMINIZED POLYESTER FOIL (FOIL IN, 100% COVERAGE) SHALL BE APPLIED OVER THE BRAID. .247"
- JACKET: THERMOPLASTIC ELASTOMER, COLOR BLACK, .039" NOM. WALL THICKNESS (PRESSURE) OVERALL CABLE DIAMETER .325" ± .010" (BY PI TAPE)

- 2) PHYSICAL PROPERTIES:
- TEMPERATURE RATING, MAX. 75°C & 80°C
- TEMPERATURE RATING, MIN. -20°C (PER UL 444 COLD BEND)
- TEMPERATURE RATING, MIN. -40°C (MANUFACTURER'S RECOMMENDED)
- WT./M', NOM., NET. 51.2 LBS.

JACKET IS SUNLIGHT RESISTANT

JACKET IS WELD SPATTER RESISTANT

JACKET IS CUTTING/MACHINING OIL RESISTANT (6 MONTHS @ 20°C)

TENSILE STRENGTH RETENTION, NOM. 80%

ELONGATION RETENTION, NOM. 100%

FLEX LIFE (PENDING)  
(126 CYCLES/MIN, @ 20°C)

TORSION TEST (PENDING)  
(1 LB LOAD, 360°, 71 CYCLES/MIN, @ 20°C)

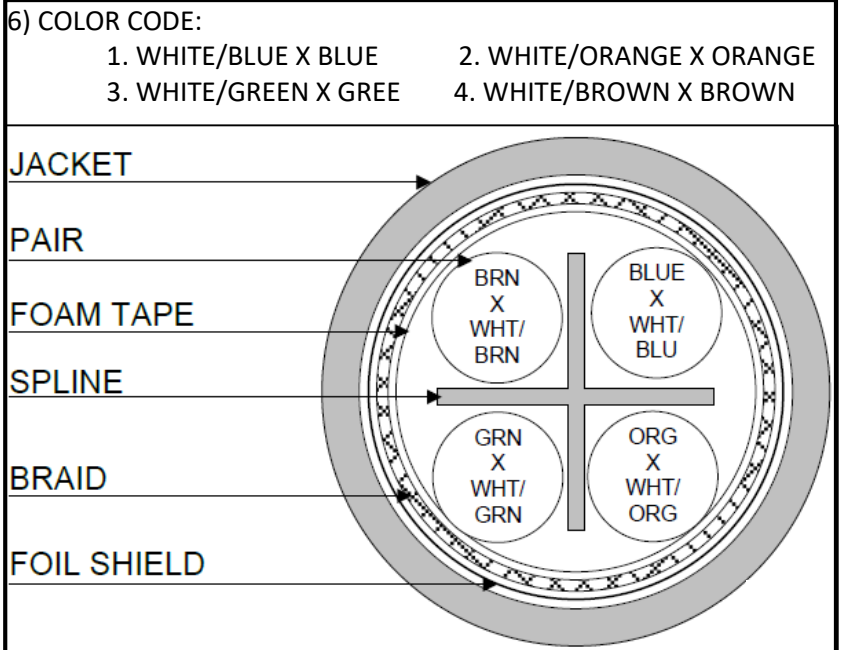
3 MILLION CYCLE TEST

**MINIMUM BEND RADIUS: 10X O.D.**  
1 MILLION CYCLE TEST (10X CABLE O.D., MINIMUM RADIUS)  
10 MILLION CYCLE TEST (20X CABLE O.D., MINIMUM RADIUS)

3) ELECTRICAL CHARACTERISTICS: SEE PAGE 2

4) AGENCY APPROVALS:  
NEC (UL) TYPE CMX OUTDOOR - CM  
CEC C(UL) TYPE CMX OUTDOOR - CM

5) APPLICATION:  
SHIELDED FLEXIBLE PATCH/JUMPER CABLE TO SUPPORT SCREENED INDUSTRIAL ETHERNET/IP TIA-568.2-D CAT6 & 6a



**COMPONENTS EXPRESS, INC.**  
10330 Argonne Woods Drive, Ste100  
Woodridge, IL 60517

Rev. 3, 4/8/19

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## 6) ELECTRICAL CHARACTERISTICS:

POE COMPLIANT TO 88 METERS WHEN INSTALLED PER RECOMMENDATIONS IN TIA TSB-184

CABLE WILL MEET CAT 6a CHANNEL REQUIREMENTS TO 88 METER LENGTH

CAPACITANCE, MUTUAL, NOM. 13.5 PF/FT. AT 1 MHz

DIELECTRIC WITHSTANDING, MIN. 2000V RMS

VOLTAGE RATING, MAX. 600V

D.C. RESISTANCE, MAX. 26.2  $\Omega$ /1,000'

**NOTE:** TESTING FOR THE FOLLOWING IS CONDUCTED OFF THE REEL. (FOR 100m OF CABLE)

IMPEDANCE, NOM. 100  $\pm$  15  $\Omega$  1 - 100 MHz  
100  $\pm$  20  $\Omega$  100 - 500 MHz

RETURN LOSS

1 $\leq$ f < 10 MHz	20 + 6 LOG(f) dB MIN*
10 $\leq$ f < 20 MHz	26 dB MIN*
20 $\leq$ f < 100 MHz	26 - 5 LOG(f/20) dB MIN*
100 $\leq$ f $\leq$ 500 MHz	25 - 8.6 LOG(f/20) dB MIN

PS NEXT	1 $\leq$ f $\leq$ 500 MHz	42.3 - 15 LOG(f/100) dB MIN
NEXT	1 $\leq$ f $\leq$ 500 MHz	44.3 - 15 LOG(f/100) dB MIN
PSACRF	1 $\leq$ f $\leq$ 500 MHz	24.8 - 20 LOG(f/100) dB MIN
ACRF	1 $\leq$ f $\leq$ 500 MHz	27.8 - 20 LOG(f/100) dB MIN
INSERTION LOSS	1 $\leq$ f $\leq$ 500 MHz	1.2 [1.82v(f) + 0.0091(f) + 0.25/v(f)] dB MAX
DELAY	1 $\leq$ f $\leq$ 500 MHz	534 + 36/v(f) ns MAX
DELAY SKEW	1 $\leq$ f $\leq$ 500 MHz	<45 ns
PS NEXT LOSS (6 AROUND 1)	1 $\leq$ f $\leq$ 500 MHz	62.5 - 15 LOG (f/100) dB MIN 50 – 500 MHz 67 dB MIN 1 - 50 MHz
PSAACRF	1 $\leq$ f $\leq$ 500 MHz	38.2 - 20 LOG(f/100) dB MIN
COUPLING ATTENUATION	30 $\leq$ f $\leq$ 250 MHz	100 - 20 LOG(f) (MAX 60 dB) E3*
VELOCITY OF PROPAGATION		68%



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