

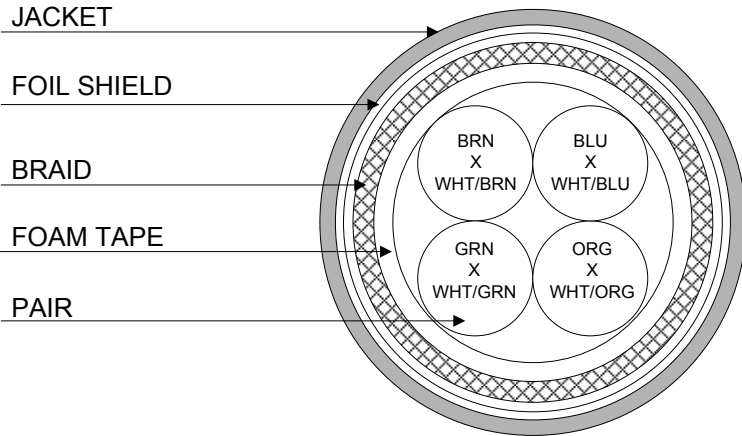
**PRODUCT SPECIFICATION: ROBOTIC CABLE TYPE #5 (CAT 5E)**

**COLOR CODE**

1. BLUE X WHITE/BLUE
2. ORANGE X WHITE/ORANGE
3. GREEN X WHITE/GREEN
4. BROWN X WHITE/BROWN

**PHYSICAL PROPERTIES**

TEMPERATURE RATING, MAX. 75°C  
 TEMPERATURE RATING, MIN. -40°C  
 WT./M, NOM., NET 34.9 LBS.  
 RoHS COMPLIANT MATERIALS  
 JACKET IS WELD SPATTER RESISTANT  
 JACKET COLORS: BLACK or WHITE



**CONSTRUCTION**

CONDUCTOR:	26 AWG 7/34 STRANDED TINNED COPPER	NOM. DIA.
INSULATION:	HIGH DENSITY POLYETHYLENE, .009" NOM. WALL THICKNESS	.019"
PAIRS:	COLOR CODED SINGLES TWISTED INTO PAIRS	.037"
CABLE:	(4) TWISTED PAIRS TWISTED TOGETHER AND WRAPPED WITH A FOAM POLYPROPYLENE TAPE TO FORM A CABLE CORE.	.074"
SHIELDS	AN OVERALL SHIELD OF 38 AWG TINNED COPPER BRAID (75% MINIMUM COVERAGE), SHALL BE APPLIED OVER THE CABLE CORE. A SECOND SHIELD OF ALUMIZED POLYESTER FOIL (FOIL IN, 100% COVERAGE) SHALL BE APPLIED OVER THE BRAID.	.143"
JACKET:	THERMOPLASTIC ELASTOMER, (BLACK OR VIOLET), .035" NOM. WALL THICKNESS	.174"
	OVERALL CABLE DIAMETER	.244" ± .005"

**FLEX & TORSION TESTING**

FLEX LIFE (126 CYCLES/MIN)	1 MILLION CYCLE TEST (10X CABLE O.D., MINIMUM RADIUS) 10 MILLION CYCLE TEST (20X CABLE O.D., MINIMUM RADIUS)
TORSION TEST (1 LB LOAD, 360°, 71 CYCLES/MIN)	3 MILLIION CYCLE TEST
JACKET CUTTING/MACHING OIL RESISTANCE (6 MONTHS @ 20° C)	
TENSILE STRENGTH RETENTION, NOM.	80%
ELONGATION RETENTION, NOM.	100%
POE COMPLIANT (802.3af) TO 80 METERS WHEN INSTALLED PER RECOMMENDATIONS IN TIA TSB-184	

**ELECTRICAL CHARACTERISTICS SEE PAGE 2**



**COMPONENTS EXPRESS, INC.**

Ph: 800-578-6695

www.ComponentsExpress.com

Spec No. **ROBOTIC CABLE TYPE #5 (CAT 5E)**

Revision A

Date 10/03/11

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**ELECTRICAL CHARACTERISTICS FOR 100m OF CABLE**

CAPACITANCE, MUTUAL, NOM.	13.5 PF/FT. AT 1 MHZ
DIELECTRIC WITHSTANDING, MIN	1500V RMS
VOLTAGE RATING, MAX.	300V
D.C. RESISTANCE, MAX.	42.6 $\Omega$ /1,000'
IMPEDANCE	100+/- 15 $\Omega$ 1-100 MHZ
IMPEDANCE, SMOOTHED	100+/- 10 $\Omega$ TYPICAL 5-100 MHZ
SRL	23 DB 1-20 MHZ 23 - 10 LOG(F/20) 20-100 MHZ
RETURN LOSS	1 - 10 MHZ 20 + 5 LOG (F) DB MIN 10 - 20 MHZ 25 DB MIN 20 - 100 MHZ 25 - 8.6 LOG (F/20) DB MIN
PS NEXT	1 - 100 MHZ 64 - 15 LOG (F/.772) MIN
NEXT	1 - 100 MHZ 67 - 15 LOG (F/.772) MIN
PS ELFEXT	1 - 100 MHZ 63 - 20 LOG (F/.772) MIN
ELFEXT	1 - 100 MHZ 66 - 20 LOG (F/.772) MIN
ATTENUATION	1 - 100 MHZ 1.5[1.967 SQRT(F) + .023(F) + .05/SQRT(F)]MAX
DELAY	1-100 MHZ 534 + 36/SQRT(F)
DELAY SKEW	1-100 MHZ <25NS
COUPLING ATTENUATION PER IEC 62153-4-9	30-100 MHZ 50 DB MINIMUM
VELOCITY OF PROPAGATION	68%

NOTE: ALL TESTING IS CONDUCTED OFF THE REEL



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