

590504

REV A

**DESCRIPTION:**

17-conductor teflon insulated cable with one tensile member and neoprene tube jacket.

DATE	LTR	REVISION	BY	CHK	APPD
7-26-00	A	EC16380-629(1)REVISED "CONDUCTORS" PAR.(2)REVISED "DESCRIPTION" PAR.(3) REVISED "JACKET" PAR.	B P B	K H	CP

**CONDUCTORS:**

- 12-#14AWG (19/.0142) silver plated copper with extruded teflon per NEMA HP-3 TYPE "E".  
4-black, 4-red, 4-white
- 5-#16AWG (19/.0113) silver plated copper with extruded teflon per NEMA HP-3 TYPE "E".  
1-green, 1-yellow, 1-orange, 1-brown, 1-blue

**JACKET:**

Neoprene tubing per SAE AMS-R-6855, class 2, type A, grade 60. Size-.4531D x .062 wall.

**TENSILE MEMBER:**

1-.0625 dia. music wire insulated with a 2/3 lap .625 wide x .002 thick TFE/A tape and a cross wrap of 1/2 lap .500 wide x .002 thick TFE/A tape.

**CABLE DIAMETER:**

.558 - .619

**INSPECTION:**

1. Visual
2. Dimensional
3. Continuity
4. Dry dielectric @ 2000 volts AC for 10 seconds conductor to conductor.

**FILLERS:**

12-EC9-3N treated glass cordage

**CABLE LAY UP:**

1. 4-#14AWG white conductors and 1-#14AWG red conductors over 1 tensile member. 1 3/4"-2" right hand lay.
2. 7-#14AWG (3-red, 4-black) conductors, 5-#16AWG (in sequence green, yellow, orange, brown & blue) conductors and 12-glass fillers over 1. 3 3/4"-4 1/4" left hand lay.
3. Tape, Buttlap-1/16" overlap, .75 wide x .001 thick adhesive backed mylar.

CURRENT DESIGN ACTIVITY CAGE CODE 97424

**AMETEK**  
AEROSPACE WILMINGTON, MA.

PART NO.  
590504-00

REVERE NO. 700-006A

DRAWN <i>RM</i>		CHECKED <i>RL</i>	APPROVED <i>RL</i>	RE-APPROVED Dino Colagrosso
7-7-77		7-7-77	7-7-77	7-26-00
UNLESS OTHERWISE SPECIFIED				
NEXT ASSY.		USED ON	BREAK SHARP EDGES .008 - .010	SURFACE ROUGHNESS per ANSI B46.1
APPLICATION		ALL DIMENSIONS APPLICABLE AFTER SURFACE TREATMENT		
THREADS PER HANDBOOK H-28 AND MIL - STD - 9		DIMENSIONING & TOLERANCING per ANSI Y14.5		
ALLOWABLE TOLERANCES				
DO NOT SCALE DRAWING		FRACTIONS ±	DECIMALS 2PL ± .003 3PL ± .005	ANGLES ± 1°
MATERIAL SPEC.		FINISH SPEC.		HEAT TREAT
<b>CABLE-17 CONDUCTORS</b>				
SCALE	SIZE	CODE IDENT. NO.	DRAWING NO.	
	<b>A</b>	<b>50625</b>	<b>590504</b>	
CONTRACT NO.		WORKT	SHT. 1 OF 1	

AMETEK Property; 01/27/04; ISSUED FOR PRODUCTION  
#EC's Released/Required: -NONE-





PR0000082251  
PR0000082399

QDR #: RM 0316  
Unit Code: \_\_\_\_\_ F/C: \_\_\_\_\_  
Plant Area: V/C 072821

**QUALITY DEFECT REPORT**

(Ref: QOP 8.001.587)

Originator: W. D. Nelson Date: 08-20-03 MRB Qty: 285 FT.  
Drawing #: 590504-00  
Rev Ltr: A Oper #: N/A  
Part Name: Cable-17 conductors # of occurrences in past 12 months: 0

**DEFECT DESCRIPTION:** Neoprene jacket ID should be .453", actual is .468".

**MATERIAL REVIEW BOARD DISPOSITION**

	QTY	Customer Approval Required?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
<input type="checkbox"/> REPAIR	<input type="checkbox"/>	Quality/Prod Eng	<u>J. Zuyk</u>	Date <u>8/21/03</u>
<input type="checkbox"/> USE AS IS	<input type="checkbox"/>	Design Engineer	<u>QDR</u>	Date <u>8/21/03</u>
<input checked="" type="checkbox"/> WAIVER/DEVIATION	<u>285</u>			

**CAUSE OF DEFECT:** Cable manufacturer processed a lot (285 feet) with a standard jacket .468" ID X .062" wall that was .015" oversized ID; and does not meet the drawing requirement. This unauthorized deviation was not approved; as the manufacturer used the standard jacket for ease of assembly believing it would not influence the form, fit or function.

**CORRECTIVE ACTION:** The cable manufacturers have been informed that deviations from drawing dimensions without prior written approval will not be accepted. Colonial has highlighted their inspection routine with a more detail inspection to prevent recurrence of this issue. Any future orders will require a drawing be available for the manufacturer's review at the time of the order.

OCAR # N/A Assigned to N/A Implementation Date N/A

**ENGINEERING RATIONALE:**

O/S condition has only slight affect on manufacturing process but once completed has no affect on form/fit/function. *ChR 8/21/03*

**DISPOSITION INSTRUCTIONS:** Use As Is. No affect on form, fit or function.

**CUSTOMER CONCURRENCE/APPROVAL:** N/A Date \_\_\_\_\_

**CORRECTIVE WORK:** Inspector Pay #: \_\_\_\_\_ Date \_\_\_\_\_ "Acceptance Stamp"

Qty Inspected: \_\_\_\_\_ Qty Accepted: \_\_\_\_\_ Qty Rejected: \_\_\_\_\_

**QDR CLOSE OUT:** Authorized by Michael J. Rudman Date 8-21-03

Distribution: Original - MRB Master File

**SHEET 1 OF 1**

Copies: Shop Operations (Prod Control), Quality/Prod Eng, Customer (if applicable), and with Material

Form A-8-779 (8/95)