FEDERAL SUPPLY CLASS
6145

RATIONALE

AS85485/12 IS BEING STABILIZED BECAUSE THE COMMITTEE DOES NOT ANTICIPATE FUTURE TECHNICAL CHANGES. FILTERLINE CABLES ARE CONSIDERED WELL-ESTABLISHED PRODUCTS. QUALIFIED SUPPLIERS ARE STILL MAINTAINED. REFERENCE CHANGES NOTED BY THE SUPPLIERS WHICH RESULTS IN A PRODUCT CHANGE WILL BE ADDRESSED BY A NEW REVISION.

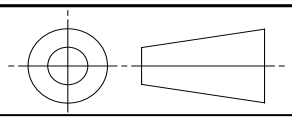
STABILIZED NOTICE

THIS DOCUMENT HAS BEEN DECLARED "STABILIZED" BY THE SAE AE-8D WIRE AND CABLE COMMITTEE AND WILL NO LONGER BE SUBJECTED TO PERIODIC REVIEWS FOR CURRENCY. USERS ARE RESPONSIBLE FOR VERIFYING REFERENCES AND CONTINUED SUITABILITY OF TECHNICAL REQUIREMENTS. NEWER TECHNOLOGY MAY EXIST.

ISSUED 2004-06 REVISED 2016-05 STABILIZED 2021-06

For more information on this standard, visit
https://www.sae.org/standards/content/AS85485/12B/

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8D

PROCUREMENT SPECIFICATION: AS85485

SAE INTERNATIONAL

AEROSPACE STANDARD

CABLE, ELECTRIC, FILTER LINE, SMALL DIAMETER WIRE, SHIELDED, JACKETED, RADIO FREQUENCY ABSORPTIVE, 150 °C, 600-VOLT

AS85485™/12

REV. B

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NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS85485.

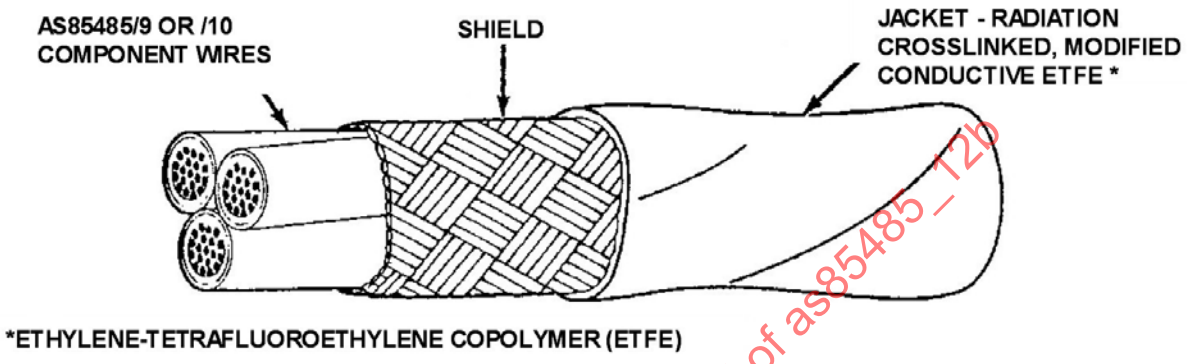

FIGURE 1 - TYPICAL AS85485/12 CABLE CONFIGURATION

TABLE 1 - CONSTRUCTION DETAILS

PART NO. M85485/12 1/	CONDUCTOR SIZE	NUMBER OF CONDUCTORS	JACKET THICKNESS (INCHES)		OUTSIDE DIAMETER (INCHES)		MAXIMUM WEIGHT (LB/1000 FT)
			(MIN)	(NOM)	(NOM)	(MAX)	
-24*1A	24	1	.0060	.008	.077	.084	7.3
-22*1A	22	1	.0060	.008	.083	.091	8.8
-20*1A	20	1	.0060	.008	.091	.099	11.2
-18*1A	18	1	.0060	.008	.102	.110	14.9
-16*1A	16	1	.0060	.008	.110	.119	18.0
-14*1A	14	1	.0060	.008	.127	.136	24.1
-12*1A	12	1	.0060	.008	.143	.153	33.2
-10*1A	10	1	.0060	.008	.169	.179	48.1
-24*2A	24	2	.0060	.008	.122	.131	13.0
-22*2A	22	2	.0060	.008	.134	.145	16.0
-20*2A	20	2	.0060	.008	.150	.161	20.5
-18*2A	18	2	.0060	.008	.172	.183	27.8
-16*2A	16	2	.0060	.008	.188	.201	34.0
-14*2A	14	2	.0070	.009	.224	.237	46.7
-24*3A	24	3	.0060	.008	.129	.139	17.0
-22*3A	22	3	.0060	.008	.142	.154	20.9
-20*3A	20	3	.0060	.008	.159	.171	27.6
-18*3A	18	3	.0060	.008	.183	.195	38.0
-16*3A	16	3	.0060	.008	.201	.214	47.0
-14*3A	14	3	.0070	.009	.239	.253	65.1
-24*4A	24	4	.0060	.008	.141	.165	21.3
-22*4A	22	4	.0060	.008	.155	.184	26.6
-20*4A	20	4	.0060	.008	.175	.206	35.4
-18*4A	18	4	.0060	.008	.201	.236	49.0
-16*4A	16	4	.0070	.009	.223	.263	61.4
-14*4A	14	4	.0070	.009	.264	.309	84.4
-24*5A	24	5	.0060	.008	.154	.178	25.4
-22*5A	22	5	.0060	.008	.170	.199	31.8
-20*5A	20	5	.0060	.008	.191	.223	42.6
-18*5A	18	5	.0070	.009	.223	.258	60.1
-16*5A	16	5	.0070	.009	.245	.285	74.6
-14*5A	14	5	.0070	.009	.291	.336	103.

1/ PART NO.: THE ASTERISKS IN THE PART NUMBER COLUMN SHALL BE REPLACED BY A COMBINED COMPONENT CONTRUCTION TYPE MATERIAL DESIGNATOR. SEE CABLE IDENTIFICATION MARKING.

REQUIREMENTS: ALL REQUIREMENTS SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS85485 (SEE AS85485/9 AND /10 FOR COMPONENT WIRE REQUIREMENTS).

1. CABLE CONFIGURATION AND MATERIAL

   CABLE CONFIGURATION AND MATERIAL SHALL BE IN ACCORDANCE WITH FIGURE 1 AND TABLE 1. CABLE INCLUDES ONE THROUGH FIVE AS85485/9 OR /10 WIRES (SEE TABLE 1).

   CABLING SHALL BE IN ACCORDANCE WITH AS85485.

   SHIELD SHALL BE IN ACCORDANCE WITH AS85485 (SEE PIN). SHIELD COVERAGE AND ANGLE SHALL BE 85% (MIN) COVERAGE WITH AN 18 DEGREE (MIN) AND 40 DEGREE (MAX) ANGLE. SHIELD STRAND SIZE SHALL BE 38 AWG ROUND WIRE STRANDS.

2. CABLE RATINGS:

   TEMPERATURE RATING: 150 °C (302 °F) MAXIMUM CONTINUOUS CONDUCTOR TEMPERATURE

   VOLTAGE RATING: IN ACCORDANCE WITH AS85485

3. CABLE BLOCKING: 200 °C ± 3 °C (392 °F ± 5 °F) FOR 6 HOURS

4. CABLE IDENTIFICATION MARKING:

PART IDENTIFICATION NUMBER (PIN) MARK SHALL BE APPLIED TO THE JACKET.

M85485 /12 -22 T 3 A
- A – COMPONENT WIRE MARKING DESIGNATION (SEE TABLE 2)
- 3 – NUMBER OF CABLE WIRES (1 THROUGH 5)
- T – CONSTRUCTION TYPE (T, M, U, V)
  - T – AS85485/9 WITH TIN COATED COPPER SHIELD
  - M – AS85485/10 WITH SILVER COATED HIGH STRENGTH COPPER ALLOY SHIELD
  - U – AS85485/10 WITH TIN COATED COPPER SHIELD
  - V – AS85485/10 WITH SILVER COATED COPPER SHIELD
- -22 – CONDUCTOR SIZE
- /12 – DETAIL SPECIFICATION NUMBER
- M85485 – PART NUMBER DESIGNATION "M" AND BASIC SPECIFICATION NUMBER

TABLE 2 – JACKET AND COMPONENT WIRE STRIPE COLORS AS DESIGNATED BY LETTER "A"

COMPONENT WIRE MARK (SEE APPLICATION NOTES) 1/	NUMBER OF CABLE WIRES 1/					CABLE JACKET COLOR
PIN MARK (NO STRIPE)	1 2/	2	3	4	5	BLACK
BLUE STRIPE						
ORANGE STRIPE						
GREEN STRIPE						
RED STRIPE						

1/ COMPONENT WIRE MARKING IS CONTROLLED BY THE NUMBER OF CABLE WIRES (SEE AS85485 FINISHED CABLE MARKING AND COMPONENT WIRE NUMBER COLOR DESIGNATION).
2/ COMPONENT WIRE PIN IS NOT REQUIRED, BUT IS PERMITTED.

CABLE JACKET PIN MARK DURABILITY: 125 CYCLES (250 STROKES) MINIMUM WITH 500 GRAMS WEIGHT

COMPONENT WIRE NUMBER AND STRIPE MARK DURABILITY: 125 CYCLES (250 STROKES) MINIMUM WITH 500 GRAMS WEIGHT. TO BE PERFORMED PRIOR TO CABLING (SEE AS85485/9 AND AS85485/10).

5. JACKET CHARACTERISTICS

CONCENTRICITY: 70% MINIMUM

ELONGATION: 50% MINIMUM

TENSILE STRENGTH: 3500 lbf/in^2 (MIN)

JACKET FLAWS: NOT APPLICABLE

6. CROSSLINKING PROOF TEST: 7 HOURS AT 300 °C ± 3 °C (572 °F ± 5 °F)

7. FLAMMABILITY: 3 SECONDS MAXIMUM AND 3 INCHES MAXIMUM

8. HUMIDITY: NOT REQUIRED FOR THE JACKET (SEE AS85485/9 AND /10)

9. IMMERSION: DIAMETER INCREASE 5% MAXIMUM; NO CRACKING OF JACKET

10. LIFE CYCLE: 168 HOURS AT 200 °C ± 3 °C (392 °F ± 5 °F)

11. LOW TEMPERATURE-COLD BEND: -65 °C ± 2 °C (-85 °F ± 4 °F) FOR 4 HOURS

12. SURFACE TRANSFER IMPEDANCE, EFFECTIVE: NOT REQUIRED (SEE APPLICATION NOTE)

13. THERMAL SHOCK RESISTANCE: OVEN TEMPERATURE, 150 °C ± 3 °C (302 °F ± 5 °F. MAXIMUM CHANGE IN MEASUREMENTS, .125 INCH