

RS-485 APPLICATIONS

Balanced digital circuit. Medium speed fieldbus interfaces. Maximum transmission speed 35 Mbit/second (normal use 1 or 0.5 Mbit/sec). Max. transmission distance is 1200 metres, 32 nodes per bus. Cables used have mainly 24AWG conductors, one twisted pair or multi-pair and impedance of 120 Ohm

RAMCRO BMS

CONSTRUCTION

Formation:

Tinned copper wire, Stranded

Insulation:

Polyolefine base - PO

Foam Polyethylene - FPE

Wrapping:

at least 1 layer of plastic tape 0,023 mm

Collective Screen:

0,026 mm Aluminium / PETP tape over tinne copper drain wire

Braiding:

Tinned copper wire braid

Outer Sheath:

Polyvinyl Chloride - PVC

Thermoplastic low smoke, Halogen free - LSZH(FRNC)

Colour Outer Sheath:

Grey - PVC

Violet - LSZH(FRNC)

STANDARD REFERENCES

- (BS) EN 50290-2
- IEC 60228
- IEC 60332-1 for PVC sheath
- IEC 60332-3-24 for LSZH(FRNC) sheath
- IEC 60754-1&2 for LSZH(FRNC) sheath
- IEC 61034 for LSZH(FRNC) sheath

IDENTIFICATION OF CORES

1 pair: 

2 pair: 

3 pair: 

4 pair: 

TEMPERATURE RANGE

During Operation:

-30° C up to +80°C

During Installation:

-5° C up to +50°C



CABLE PRINTING

RAMCRO ITALY - R_____ - DATA LAN CABLE - RS 485 - 1PR

24AWG SCREENED PVC

300 V 75 C IEC 60332-1/UL 1581 - RAMCRO CODE - "PROD.

WEEK/YEAR" - MADE IN ITALY + BATCH + METER MARKING

ELECTRICAL DATA

Insulation Resistance @ 20°C: >200 MOhm*Km

Test Voltage Core-Core: 2000 V

Test Voltage Core-Screen: 2000 V

Mutual Capacitance: < 150 nF/km

Inductance: < 1 mH/km

Operating Voltage: 300 V

CHARACTERISTICS

Min. Bending Radius

8 x cable diameter



Put up lenght 305 mt



RS-485 APPLICATIONS

4AWG conductors, one twisted pair or multi-pair and impedance of 120 Ohm

Cable with 24AWG CONDUCTORS - FOAM PE/SCREEN (CAM+TCWB)/PVC

RAMCRO CODE	PART N°	FORMATION [n° x AWG]	NOM. OUTER DIAMETER [mm]	NOM WEIGHT [kg/km]	MAX RESISTANCE AT 20°C [Ohm/km]	NOM. CAPACIT. [pF/m]
MAR0108HBADX-T-RB	R1189	1x2x24AWG	5.7	38	15.46	41.0
MAR0208HBADX-T-RB	R1190	2x2x24AWG	8.4	60	15.46	41.0
MAR0308HBADX-T-RB	R1191	3x2x24AWG	8.9	73	15.46	41.0
MAR0408HBADX-T-RB	R1192	4x2x24AWG	9.7	87	15.46	41.0

Cable with 24AWG CONDUCTORS - SOLID PO/SCREEN (CAM+TCWB)/LSZH(FRNC)

RAMCRO CODE	PART N°	FORMATION [n° x AWG]	NOM. OUTER DIAMETER [mm]	NOM WEIGHT [kg/km]	MAX RESISTANCE AT 20°C [Ohm/km]	NOM. CAPACIT. [pF/m]
MAR0108HXEDX-T-RB	R1318	1x2x24AWG	5.6	36	15.46	41.0
MAR0208HXEDX-T-RB	R1319	2x2x24AWG	8.2	57	15.46	42.0
MAR0308HXEDX-T-RB	R1320	3x2x24AWG	8.7	69	15.46	42.0
MAR0408HXEDX-T-RB	R1321	4x2x24AWG	9.5	83	15.46	42.0

Cable with 22AWG CONDUCTORS - FOAM PE/SCREEN (CAM+TCWB)/PVC

RAMCRO CODE	PART N°	FORMATION [n° x AWG]	NOM. OUTER DIAMETER [mm]	NOM WEIGHT [kg/km]	MAX RESISTANCE AT 20°C [Ohm/km]	NOM. CAPACIT. [pF/m]
MAR0107HBADX-T-RB	R1080	1x2x22AWG	6.4	48	73.1	36.0
MAR0207HBADX-T-RB	R1295	2x2x22AWG	9.8	76	73.1	37.0
MAR0307HBADX-T-RB	R1296	3x2x22AWG	10.4	93	73.1	38.0
MAR0407HBADX-T-RB	R1297	4x2x22AWG	11.4	113	73.1	38.0

Cable with 22AWG CONDUCTORS - SOLID PO/SCREEN (CAM+TCWB)/LSZH(FRNC)

RAMCRO CODE	PART N°	FORMATION [n° x AWG]	NOM. OUTER DIAMETER [mm]	NOM WEIGHT [kg/km]	MAX RESISTANCE AT 20°C [Ohm/km]	NOM. CAPACIT. [pF/m]
MAR0107HXEDX-T-RB	R1401	1x2x22AWG	6.0	40	73.1	36.0
MAR0207HXEDX-T-RB	R1402	2x2x22AWG	9.1	66	73.1	37.0
MAR0307HXEDX-T-RB	R1403	3x2x22AWG	10.1	83	73.1	38.0
MAR0407HXEDX-T-RB	R1404	4x2x22AWG	11.0	100	73.1	38.0

Cable with 18AWG CONDUCTORS - SOLID PE/SCREEN (CAM+TCWB)/LSZH(FRNC)

RAMCRO CODE	PART N°	FORMATION [n° x AWG]	NOM. OUTER DIAMETER [mm]	NOM WEIGHT [kg/km]	MAX RESISTANCE AT 20°C [Ohm/km]	NOM. CAPACIT. [pF/m]
MAR0105HXEDX-T-RB	R1405	1x2x18AWG	8.9	75	90.0	32.0
MAR0205HXEDX-T-RB	R1406	2x2x18AWG	11.5	111	90.0	35.0
MAR0305HXEDX-T-RB	R1407	3x2x18AWG	13.5	138	90.0	38.0
MAR0405HXEDX-T-RB	R1408	4x2x18AWG	14.8	194	90.0	38.0