

Low Capacitance Fire Resistant RS-485

20AWG/0.50mm² Overall Screen & Shielded, HFFR/LSZH Sheath

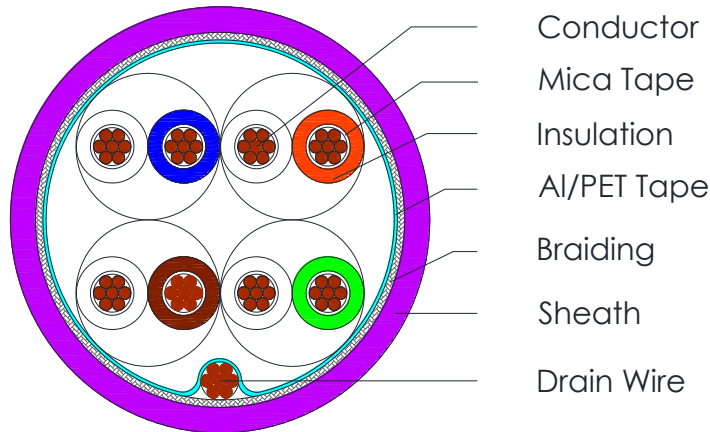


C5218, C5219, C5220, C5221

Applications

Designed for applications which are used for RS 232/422/485, CANBUS, and MODBUS communication protocols. Cable applications include motion oriented machine, machine control networks, temperature controllers, control panels, machine cutting tools, auxiliary equipment, SCADA communications, etc. These cables can also be used in emergency evacuation / shutdown systems in offshore, petrochemicals and railway applications and are fire resistant up to 90 minutes @ 750°C as per IEC 60331-23 & flame retardant as per IEC 60332-3-22 Category A.

Cross Section Drawing



Design

Unit	Properties
Conductor	Tinned Copper wire, flexible
Fire Protection Barrier	Mica Glass Tape (MGT) 100% Coverage
Insulation	Electron-Beam Cross-Linked Polyethylene (XLPE) Pair 1: WHITE + BLUE Pair 2: WHITE + ORANGE Pair 3: WHITE + GREEN Pair 4: WHITE + BROWN
Cabling	N Pairs twisted together
Screen	Aluminium/Polyester 115% Coverage
Drain Wire	Tinned Copper wire
Braid	Tinned Copper wire
Sheath Material	Halogen Free Flame Retardant (HFFR/LSZH) Standard colour: Purple
Standard Put Up Length	305 or 500 meters

*Other Colors, Put Up Lengths and structures can be manufactured upon request, please contact your local B3 International sales representative.

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Physical Characteristics

Part Number	C5218	C5219	C5220	C5221
Number of pairs	1	2	3	4
Conductor Gauge (AWG)	20			
Conductor configuration (mm)	7 x 0.30			
Drain Wire Size (AWG)	24(7 x 32)			
Nom. Overall Diameter (mm)	10.4	15.4	16.4	18.0
Operating Temperature (°C)	-40 / +90			
Min. Bend Radius (install) (mm)	124.8	184.8	196.8	216.0
Nominal Cable Weight (kg/km)	152	252	262	312

Electrical Characteristics

Part Number	C5218	C5219	C5220	C5221
No of pairs	1	2	3	4
Mom. DC Resistance Conductor (Ω /km)	41.6			
Nom. Impedance (Ω)	120			
Capacitance core to core (pF/m)	46			
Capacitance core to rest (pF/m)	82			
Nom. Attenuation at 1 MHz (dB/100m)	2.2			
Nom. Inductance to Resistance ratio (L/R) (μ H/ Ω)	25			
Nom. Delay (ns/m)	5.2			
Dielectric Strength (AC) for 5min (KV _{ac})	1.5			
Nom. Inductance @ 1KHz (mH/km)	1			
Voltage Test in Water (V _{ac}) for 4hours	450			
Min. Insulation Resistance (M Ω *KM)	3670			
Voltage Rating (V _{rms})	300 (150/250)			

Reference Standards

IEC 60092-376, IEC 60092-359, IEC 60092-351	IEC 60754-1, IEC 60754-2, IEC 61034-2
IEC 60228	ASTM D 2843, EN 50305, NF F63-305
IEC 60332-1-2, IEC 60332-3A, BS6387	RoHS & CE & REACH Directives
IEC 60331-23 (750°C for 90minutes)	UV/SUN Light Resistant UL1581
Oil Resistance ICEA S 73-532 IRM 902	