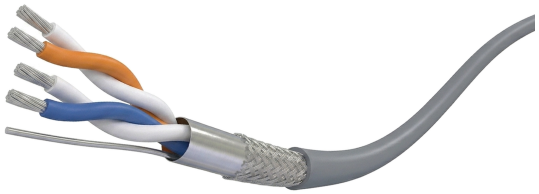
BUS RS-485 FD

-40°C to +80°C, 300V



Construction
Conductor: Tinned Copper · Flexible Stranded
Core Insulation: Foamed · Foam PE
Cabling: Twisted
Core Identification: Pair 1: White/Blue Stripe & Blue/White Stripe; Pair 2: White/Orange Stripe & Orange/White Stripe; Pair 3: White/Green Stripe & Green/White Stripe; Pair 4: White/Brown Stripe & Brown/White Stripe
Shield: Foil · Aluminum/polyester (Al/PET) foil
Drain Wire: Stranded Tinned Copper
Shield: Braid · Tinned copper braid
Jacket: Extruded · PUR/TPU

Thermal Characteristics
Operating Temperature: -40°C to +80°C
Continuous Flexing Temperature: -30°C to +70°C

Electrical Characteristics
Operating Voltage: 300V
Test Voltage: 1500V
Characteristic Impedance: 120 Ω ± 12 Ω (at 1 MHz)
Mutual Capacitance: Approx. 42 nF/km (conductor to conductor at 1 kHz)
Velocity of Propagation: Approx. 78%

Application
Cable Carriers and Moving Machinery: For dynamic signal and control routing in drag chains, gantries, linear axes and automated handling equipment.
Fieldbus and Serial Data Networks: For differential serial and fieldbus communication links between programmable controllers, distributed I/O modules, drives and field devices.

General Characteristics
Continuous-Flex Durability: Designed to withstand repeated bending cycles in cable carriers and continuously moving machinery.
Oil Resistance: Resistant to oil exposure, helping maintain the integrity of the cable covering in oily environments.
Abrasion Resistance: Resistant to abrasion, helping protect the cable surface against wear caused by rubbing and handling.
EMC Interference Shielding: Metallic shielding helps suppress electromagnetic interference and maintain signal integrity in electrically noisy environments.

Standards & Approvals
TIA/EIA-485-A: Balanced differential serial data interface.
Halogen-Free: IEC 60754-1

Fire Performance
Fire Retardant: FT2

RoHS COMPLIANT REACH COMPLIANT

CASMO Part No.	Conductor			Insulation		Min. Braid Coverage (%)	Cable		Max. DCR @20°C (Ω/km)
	Conductor Size (AWG)	No. Of Strands	Nom. Strand Dia. (mm)	Nom. Ins. Thickness (mm)	Nom. Core O.D. (mm)		Nom. Jkt. Thickness (mm)	Nom. O.D. (mm)	
12300624/19-1P-TS-GY	1P×24	19	0.13	0.55	1.75	80	0.95	6.2	84.0
12300624/19-2P-TS-GY	2P×24	19	0.13	0.55	1.75	80	1.10	8.8	84.0
12300624/19-3P-TS-GY	3P×24	19	0.13	0.55	1.75	80	1.15	9.5	84.0
12300624/19-4P-TS-GY	4P×24	19	0.13	0.55	1.75	80	1.20	10.4	84.0
12300622/19-1P-TS-GY	1P×22	19	0.16	0.65	2.10	80	1.05	7.4	55.5
12300622/19-2P-TS-GY	2P×22	19	0.16	0.65	2.10	80	1.15	9.6	55.5
12300622/19-3P-TS-GY	3P×22	19	0.16	0.65	2.10	80	1.20	10.4	55.5
12300622/19-4P-TS-GY	4P×22	19	0.16	0.65	2.10	80	1.25	11.4	55.5

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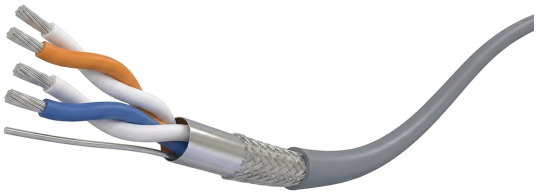

Table Notes

* "-TS-" = 19-strand flexible tinned copper conductor for drag-chain (FD) service; "-1P" to "-4P" = number of twisted pairs; "-GY" = grey PUR outer sheath (standard).

† Max. DCR @20°C is specified as guaranteed single-conductor maximum; maximum DC loop resistance equals 2 × single-conductor DCR (168.0 Ω/km for 24 AWG; 111.0 Ω/km for 22 AWG).

‡ Standard halogen-free PUR jacket meets FT2 flame rating; low-halogen VW-1 / FT1 jacket available upon request.

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