BUS CAN FD

-40°C to +80°C, 250V



Construction

Conductor: Bare Copper · Flexible Stranded
Core Insulation: Foamed · Foam PE
Cabling: Twisted
Core Identification: 1×2: White / Brown; 2×2: White / Brown, Green / Yellow (DIN 47100)
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: 250V
Test Voltage: 1500V
Characteristic Impedance: 120 Ω ± 12 Ω (at 1 MHz)
Mutual Capacitance: Approx. 40 nF/km (at 800 Hz)
Velocity of Propagation: Approx. 76%

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

ISO 11898-2: High-speed CAN and CAN FD physical layer (continuous-flex drag-chain design).
DIN 47100: Paired core color identification.
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 (mm²)	No. Of Strands	Nom. Strand Dia. (mm)	Nom. Ins. Thickness (mm)	Nom. Core O.D. (mm)		Nom. Jkt. Thickness (mm)	Nom. O.D. (mm)	
1230020.25/19-1P-AS-VT	1×2×0.25	19	0.13	0.55	1.75	80	0.95	6.4	79.8
1230020.25/19-2P-AS-VT	2×2×0.25	19	0.13	0.55	1.75	80	1.10	7.8	79.8
1230020.34/19-1P-AS-VT	1×2×0.34	19	0.15	0.62	2.00	80	1.00	6.9	61.0
1230020.34/19-2P-AS-VT	2×2×0.34	19	0.15	0.62	2.00	80	1.15	8.6	61.0
1230020.5/19-1P-AS-VT	1×2×0.5	19	0.18	0.75	2.40	80	1.10	8.0	40.5
1230020.5/19-2P-AS-VT	2×2×0.5	19	0.18	0.75	2.40	80	1.25	10.0	40.5

Table Notes

* "-AS-" = 19-strand flexible bare copper conductor for continuous-flex drag-chain (FD) service; "-1P" / "-2P" = number of twisted pairs; "-VT" = violet (RAL 4001) PUR outer sheath (standard).

† Max. DCR @20°C is specified per single conductor; maximum DC loop resistance equals 2 × single-conductor DCR (159.6 / 122.0 / 81.0 Ω/km for 0.25 / 0.34 / 0.5 mm²). Compatible with Classical CAN, CANopen, and CAN FD physical layers (ISO 11898-2).

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

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