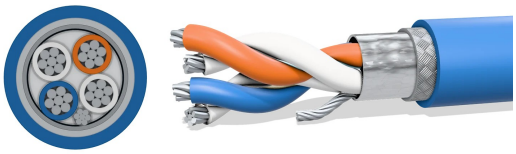
RS-485 2x2x0.22 LSZH B2ca

RS-485 bus cable, 2 pairs 0.22 mm2, foil and TC braid, blue LSZH sheath, B2ca-s1a,d0,a1

CU/PE/CAM/TCWB/LSZH

Application



RS-485 2x2x0.22 LSZH B2ca is an RS-485 (EIA/TIA-485) data bus cable with a characteristic impedance of 110 Ω, for serial fieldbus communication between PLCs, drives, operator panels, meters and SCADA/RTU equipment. Two twisted pairs of stranded tinned-copper conductors with high-density polyethylene (HDPE) insulation are enclosed by an overall screen of aluminium/polyester (Al/PET) foil with a tinned-copper drain wire and a tinned-copper braid, which keeps the bus reliable in electrically noisy installations and over long distances. The blue sheath is a UV-resistant, low-smoke zero-halogen (LSZH) compound, for installations that call for a high reaction-to-fire class.

CONSTRUCTION

Conductor	Stranded tinned copper, 7 × 0.20 mm, approx. 0.22 mm^2.
Insulation	High-density polyethylene (HDPE), nominal diameter 1.73 mm.
Pairs	Two twisted pairs; colours blue with white stripe and white with blue stripe, orange with white stripe and white with orange stripe.
Screen	Overall aluminium/polyester (Al/PET) foil with a stranded tinned-copper drain wire, 7 × 0.20 mm.
Braid	Tinned copper, 0.11 mm wires, 16 carriers of 8 wires.
Sheath	Low-smoke zero-halogen (LSZH) compound, UV-resistant, blue.
Cross-reference	Comparable in construction to Belden 9842 (RS-485, 2 pairs). Differs in characteristic impedance (110 Ω instead of 120 Ω), rated voltage (600 V instead of 300 V), outer diameter (8.00 mm instead of 8.64 mm) and sheath (LSZH, B2ca).

ELECTRICAL & TRANSMISSION PROPERTIES

Rated voltage	600 V.
Characteristic impedance	110 Ω ±15 Ω.
Capacitance	45 ±15 pF/m core to core; 75 ±15 pF/m core to screen.
Conductor resistance	83 Ω/km at 20 °C.
Temperature range	-30 °C to +70 °C.
Compliance	RoHS (EU 2015/863) and REACH.

FIRE PERFORMANCE

Flame propagation	EN 60332-1-2.
Reaction-to-fire test	EN 50399.
Smoke density	EN 61034-2.
Halogen acid gas	IEC 60754-1.
Corrosive gases	IEC 60754-2.
Reaction to fire (CPR)	B2ca-s1a,d0,a1 (EN 50575:2014+A1:2016, AVCP system 1+).

KEY FIGURES

Pairs	2 × 2 × 0.22 mm^2
Outer diameter	8.00 mm
Characteristic impedance	110 Ω ±15 Ω

Values are the manufacturer's nominal values for this construction; tolerances as stated. Weight and minimum bending radius on request. All values are indicative and non-binding. Belden is a trademark of Belden Inc.; the name is used for identification only.

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