

Application

RS-485 2x2x0.20 PE UV is an RS-485 (EIA/TIA-485) data bus cable with a characteristic impedance of 120 Ω, for serial fieldbus communication between PLCs, drives, operator panels, meters and SCADA/RTU equipment. Two twisted pairs of stranded tinned-copper conductors with polyethylene (PE) 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 black PE sheath is UV-resistant, for routes exposed to sunlight.



CONSTRUCTION

Conductor	Stranded tinned copper, 7 × 0.19 mm (±0.008 mm), approx. 0.20 mm ² .
Insulation	Polyethylene (PE), nominal diameter 1.80 mm (±0.13 mm).
Pairs	Two twisted pairs; colours blue/white and white/blue, orange/white and white/orange.
Screen	Overall aluminium/polyester (Al/PET) foil with a stranded tinned-copper drain wire, 7 × 0.19 mm.
Braid	Tinned copper, 112 × 0.12 mm, coverage 90 %.
Sheath	Polyethylene (PE), UV-resistant, black.
Cross-reference	Comparable to Belden 9842 (RS-485, 2 pairs). Differs in outer diameter (6.80 mm instead of 8.64 mm), sheath (UV-resistant PE instead of PVC) and conductor (7 × 0.19 mm instead of 7 × 0.20 mm).

ELECTRICAL & TRANSMISSION PROPERTIES

Rated voltage	300 V.
Characteristic impedance	120 Ω.
Mutual capacitance	42 pF/m (conductor to conductor).
Conductor resistance	max. 96 Ω/km at 20 °C.
Temperature range	-30 °C to +80 °C.
Compliance	RoHS (EU 2015/863) and REACH.
Reaction to fire (CPR)	Fca (EN 50575).

KEY FIGURES

Pairs	2 × 2 × 0.20 mm ²
Outer diameter	6.80 mm (±0.20 mm)
Characteristic impedance	120 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.