Industrial data, fieldbus & RF cables

8138 120Ω RS-232/485 CL2

8138 120 Ohm 8-Pair 28 AWG RS-232/485 Shielded Data Cable

TIA/EIA-485 / UL AWM 2919 / NEC CL2 · 30 V / 300 V · −20…+80 °C · Min. bend 10 × OD

TIA/EIA-485 / UL AWM 2919 / NEC CL2 | 30 V AWM 2919 / 300 V CL2



Application

TIA/EIA-485, UL AWM Style 2919 (30 V) & NEC CL2 (300 V, 120 Ω, 12.8 pF/ft) 8-pair 28 AWG foil and 65% tinned copper braid shielded low-capacitance RS-232/485 data cable.

Typical uses: Industrial automation & control cabinets, Inverter-fed motor drive systems, Process instrumentation & oil/gas skids, Machine tools & robotic cells, Data centers, stadiums & broadcast facilities

Construction





Cross-section, not to scale

1	8 Twisted Pairs (28 AWG Tinned Copper)	7×36 AWG Stranded Tinned Copper (16 Conductors)
2	Foam Polyethylene (FPE) Core Insulation	Low-Capacitance 12.8 pF/ft Color-Coded FPE
3	100% Aluminum/Polyester Foil + Drain Wire	Overall Foil Tape Shield + 24 AWG Tinned Cu Drain
4	65% Tinned Copper Wire Braid Shield	Overall Braided Tinned Copper EMI Screen
5	Chrome Grey Industrial PVC Outer Jacket	UL AWM Style 2919 (30V) / NEC CL2 (300V) Sheath (6.65 mm OD)

Technical data

Typical values

Nominal / reference voltage	30 V AWM 2919 / 300 V CL2	Conductor & core insulation	7×36 AWG Stranded Tinned Copper (16 Conductors) · Low-Capacitance 12.8 pF/ft Color-Coded FPE
Routine dielectric / continuity test	100% factory drum spark & continuity verified	Operating temperature range	−20…+80 °C
Short-circuit / peak thermal limit	+160 °C to +250 °C (5 s conductor thermal limit)	Flame & fire performance	TIA/EIA-485 / UL AWM 2919 / NEC CL2
Minimum bending radius	10 × OD	Screening / armour architecture	Overall Foil Tape Shield + 24 AWG Tinned Cu Drain · Overall Braided Tinned Copper EMI Screen
Outer sheath material & colour	UL AWM Style 2919 (30V) / NEC CL2 (300V) Sheath (6.65 mm OD)	Standards	TIA/EIA-485 / TIA/EIA-232 / UL AWM Style 2919 (30V) / NEC CL2 (300V) / UL 1685

Sizes

3 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Part designation	Configuration	Conductor & shield	Insulation / wall	Outer sheath	Outer diameter mm	Min. bend radius mm	Max. conductor resistance @ 20 °C Ω/km	Copper weight kg/km	Cable weight kg/km	Key electrical / optical rating
8138 120Ω RS-232/485 CL2 3 sizes										
☐ 8138 8 Pairs × 28 AWG (120 Ω)	8 × 2 × 28 AWG (0.089 mm²)	7×36 AWG Tinned Cu + FPE + Foil/65% TCWB	Low-Capacitance 12.8 pF/ft Color-Coded FPE	Industrial PVC	6.7	67	213.00	24.5	58	120 Ω · 42.0 pF/m (12.8 pF/ft) · 78% VP
☐ 8135 5 Pairs × 28 AWG (120 Ω)	5 × 2 × 28 AWG (0.089 mm²)	7×36 AWG Tinned Cu + FPE + Foil/65% TCWB	Low-Capacitance 12.8 pF/ft Color-Coded FPE	Industrial PVC	5.8	58	213.00	18.2	45	120 Ω · 42.0 pF/m (12.8 pF/ft) · 78% VP
☐ 8142 12 Pairs × 28 AWG (120 Ω)	12 × 2 × 28 AWG (0.089 mm²)	7×36 AWG Tinned Cu + FPE + Foil/65% TCWB	Low-Capacitance 12.8 pF/ft Color-Coded FPE	Industrial PVC	7.7	77	213.00	33.8	79	120 Ω · 42.0 pF/m (12.8 pF/ft) · 78% VP

– Dimensions and weights are nominal manufacturing targets subject to standard production tolerances.

Standards and approvals

- ✓ TIA/EIA-485 / UL AWM 2919 / NEC CL2 Compliant
- ✓ EN 10204 3.1 Factory Test Certificate
- ✓ CE, RoHS 2 (2011/65/EU) & REACH

Certifications

Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone **+86 185 9591 3361**

Email **info@tebaoflex.com**

Web **tebaoflex.com/cables/8138-120-ohm-low-capacitance-8-pair-28-awg-rs-232-485-data-cable**

Typical values for this cable type, based on Reference specification per TIA/EIA-485 / UL AWM 2919 / NEC CL2 (8138 120Ω RS-232/485 CL2). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.