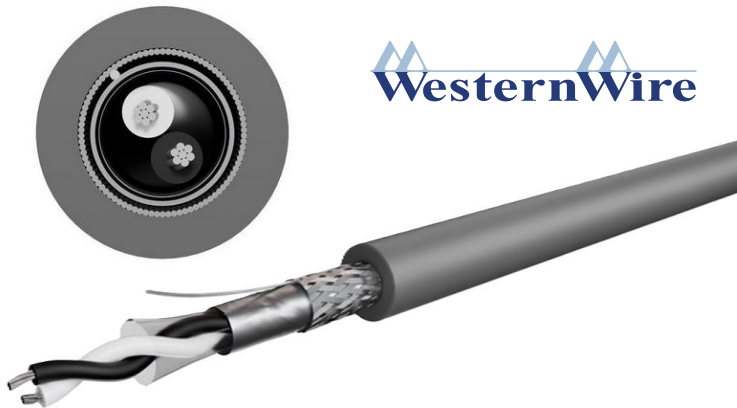


Digital Data Cable

Technical Specification

- Cable Type: 1x2x24# PE Insulated and PVC Jacketed Shielded LF Digital Data Cable
- Western Wire Part Number: EG102E92
- Revision: 01/25
- Date: 9 December 2025



WESTERN WIRE presents a high-performance 120-Ohm twin-axial communication cable, engineered to deliver reliable and stable digital signal transmission across a wide range of industrial and commercial applications.

The cable is constructed from a single flexible 24AWG twisted pair, enclosed within an overall foil and braid shield, ensuring superior protection against electromagnetic interference and maintaining signal integrity even in demanding environments.

Its durable flexible gray PVC outer jacket is optimized for indoor installations, offering ease of handling and excellent mechanical resilience. Fully compatible with EIA-485 (RS-485) digital interfaces, the cable is ideal for portable setups, control systems, automation networks, and any application requiring robust, low-noise data communication.

Physical Description

Conductors	Stranded 24# annealed tinned copper, 7x0.20 mm nom.
Insulation type	Solid PE compound, rated at -20 to +80°C
Insulation OD	1.80 mm nom.
Insulation color	■ Black □ White
Core arrangement	The 2 conductors are twisted together with 2 PE fillers for a round circular cross section
Core warp	Polyester-aluminum tape, foil face out, providing 100% coverage
Drain wire	Stranded 24# annealed tinned copper 7x0.20 mm nom.
Overall shield	Tinned copper braid, providing 85% coverage
Outer Jacket	Flexible FR-PVC compound, rated at -20 to +80°C
Outer Jacket color	■ Grey, RAL 7032
Outer Jacket Thickness	0.60 mm nom.
Cable OD.	6.4 mm nom.
Surface Marking	WESTERN WIRE EG102E92 1x2x24AWG SF/UTP 120 OHM DIGITAL DATA CABLE FR IEC 60332-1 CE 2011/65/EU (RoHS-2) [Month, Year] [Batch Number] [Sequential Meter Mark] METER
Notes	The jacket is easily removable. The cables jacket shall be produced in tubing extrusion maintaining minimum tightness (not pressure extrusion).

Mechanical Properties

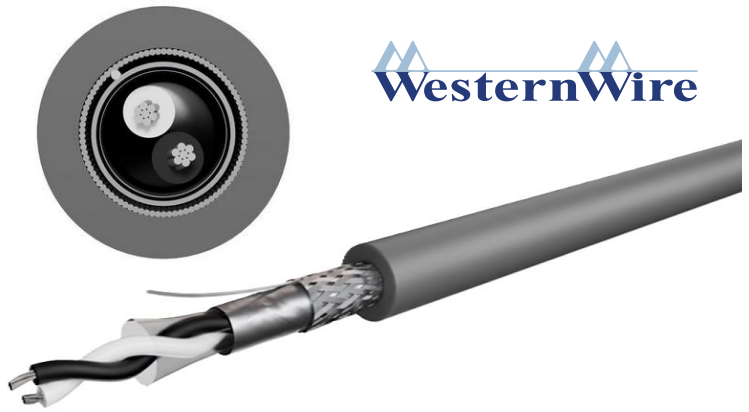
Minimum Bend Radius	5 x D
Storage temperature	-20 to +60°C
Operating temperature	-20 to +80°C
Pulling force	30N max.
Flame test	IEC 60332-1
Cable weight	45 kg/km nom.

This cable fully conforms to EU Directive 2011/65/EU (RoHS-2)

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WesternWire

Electrical & Transmission Properties @ 20°C

DC Resistance of conductors	96 Ohm/km max.
DC Resistance unbalance	3% max.
Insulation resistance	500 Mohm km min.
Velocity of propagation	67% nom. @ 1 kHz
Skew delay	45 nS/100m max. @ 1 MHz
Characteristic Impedance (Smoothed)	120±15 Ohm @ 1 MHz.
Capacitance	42 pF/m nom @ 1 kHz.
Capacitance unbalance (wire to ground)	15 pF/m max @ 1 kHz.
Screening attenuation	75 dB min. @ 1 MHz.
Dielectric strength (between conductors)	1000 V rms min/ 1 minute
Dielectric strength (between conductors & Shield)	700 V rms min/ 1 minute
Voltage rating	70 V rma max.

Attenuation @ 20°C

Frequency (MHz)	Max. Attenuation (dB/100m)
1	2.2
4	4.1
8	5.8
10	6.6
16	8.2
25	10.3
31.25	11.5
62.5	16.4
100	21.0