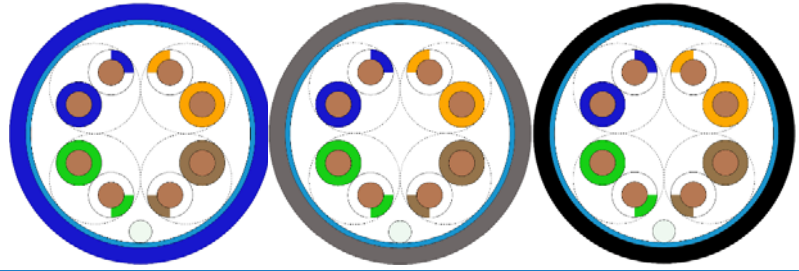


Technical Data Sheet

Industrial Category 5e Shielded Cable



Belden P/N 50105F
Industrial CAT 5e F/UTP

Applications

Industrial Ethernet cables used in interconnecting Industrial Ethernet Switches, IP controllers, media convertors, distributed control system, programmable logic controller and transmitting industrial protocol data signals. These cables are suitable for transmitting 1000BASE-TX Gigabit Ethernet, 100BASE-T Fast Ethernet, 100BaseVG ANYLAN, 155ATM, 622ATM, RS-422, 250MHz Category 5e, EtherCAT. These are highly durable & ruggedized cables for both indoor and outdoor.

General Reference Standards

- 11801 Category 5e, TIA/EIA 568C.2 Cat 5e
- IEC 60332-3-25, UL 1685, UL 1581, ICEA S 73-532, IEC 60332-1
- EU RoHS

Physical Characteristics	
Conductor Size	24 AWG
Conductor Material	Solid Bare Copper
Insulation Material	PO - Polyolefin
Number of Pairs	4 Pairs
Shielding	Aluminium Foil – Polyester Tape with TC drain wire
Jacket Material	PVC -Polyvinylchloride
Suitability	Indoor and Outdoor
UV/Sun Light Resistance	Yes
Oil Resistance	Yes
Flame Retardant	IEC 60332-3-25 &UL 1685 loading
UL Specification	CM
Other Specifications	ISO/IEC 11801 Class E TIA/EIA 568-C.2 Category 5e

Electrical Characteristics	
Max. Conductor DCR @ 20°C	9.5 Ω/100m
Characteristic Impedance	100 ± 15 Ω
Nom. Mutual Capacitance @ 1KHz	5.6 nF/100m
Max. Capacitance Unbalance	330 pF/100m
Nom. Velocity of Propagation	65%
Max. Intended Operating Voltage Rating - UL	300 V
Max. Delay @ 100MHz	538 ns/100m
Max. Delay Skew	45 ns/100m
DCR Unbalance @ 20°C	Max. 5%
Mechanical Characteristics	
Operating Temperature Range	-20°C To +75°C
Bulk Cable Weight	39 kg/km
Max. Recommended Pulling Tension	100 N
Min. Bending Radius (Install)	48 mm

Electrical Characteristic:

Frequency (MHz)	Max. Attenuation (dB/100m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. Return Loss (dB)	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	-	65.3	62.3	-	63.8	60.8
4	4.1	56.3	53.3	23.0	51.8	48.8
8	5.8	51.8	48.8	24.5	45.7	42.7
10	6.5	50.3	47.3	25.0	43.8	40.8
16	8.3	47.2	44.2	25.0	39.7	36.7
20	9.3	45.8	42.8	25.0	37.8	34.8
25	10.4	44.3	41.3	24.3	35.8	32.8
31.25	11.7	42.9	39.9	23.6	33.9	30.9
62.5	17.0	38.4	35.4	21.5	27.9	24.9
100	22.0	35.3	32.3	20.1	23.8	20.8

Put Ups & Colours:

Stock Code	Cable Description	Armor Type	Sheath Material/Colour	Nom. OD (mm)
50105F 006A305M	4P X 24 AWG PO/OS/PVC	Unarmored	PVC Blue	6.00
50105F 008A305M	4P X 24 AWG PO/OS/PVC	Unarmored	PVC Grey	6.00
50105F 010A305M	4P X 24 AWG PO/OS/PVC	Unarmored	PVC Black	6.00

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