Gigabit Ethernet cable

High-grade bending, shielded, enhanced category 5 LAN cable

C5E (S-HFR) series

RoHS compliant

With special polymers and special shielding, this shielded LAN cable provides unprecedented high-grade bending characteristics. This cable supports Gigabit Ethernet and enables transmission speed of 1 Gbps. Also supports industrial Ethernet and other high-speed image transmission methods.

Features

- Strong flexibility and extreme elasticity.
- Special polymer insulation and special braided shielding with excellent bending characteristics provide high-grade bending and sliding characteristics. This cable also handles twisting motions.
- Supports industrial high-speed image transmission methods.
- The special braided shielding increases the noise-proof properties of this cable.
- The oil-proof sheath enables use in factories and other similar environments.
- A standard shielded modular plug (RJ-45) can be used. Furthermore, we offer screw-lock connectors for machine vision and other uses.
- Environmentally friendly. Compliant with the RoHS directive.

Name

We sell standalone cables and harness items individually.

Manufacturing shape	Model no.
Standalone cable (standard length: 200 m bundle)	AWG26 4P TPMC-C5E (S-HFR) K
Double-ended RJ45 with harness	C5E (S-HFR) (K) - (1)
Screw-lock RJ45 with harness Note 1	C5E (S-HFR) (K) - HSL - (1)

(1): Cable length (m)
Symbol examples: 1 m : 1
2.5 m: 2.5
40 m: 40

Note 1. Single-ended screw-lock type.

Specifications

Cable	UL	UL 758 Style 20276
	Rated temp./volt.	80˚C / 30 V
	Conductor size	AWG26 pair twist wire conductor
	Insulator material	Special polymer
	Shielding	Special braided shielding
	Sheath material	Oil-proof PVC
	Color	Black
	Outer diameter	Standard 6.8 mm
Complete product	Cable length	Max. 40 m
	Connector type	RJ45 or screw-lock RJ45
	Connector color	Black (boot, mold color)

Performance

Transmission distance		Max. length 40 m
Transmission speed [Gbps]		1
Attenuation [dB/40 m](20˚C)		24 or less (100 MHz)
Near-end crosstalk attenuation [dB]		30 or more (100 MHz)
PSNEXT [dB]		27 or more (100 MHz)
Return loss [dB]		10 or more (100 MHz)
Delay time [ns/40 m]		555 (10 MHz)
Withstand voltage [V/1 minute interval]		AC 350
Mobility	Sliding bending	3 million times or more Note 2 Bend radius R: 50 mm
	Swinging bending	300 thousand times or more Note 2 Bend radius R: 20 mm
	Torsion	5 million times or more Note 2 Torsion angle: ±180°

Note 2. Under Oki test conditions and methods. For details, see page 3.
Furthermore, these values are for reference only and are not guaranteed values.

Usage environment

Operation temperature range	-10 to 60˚C
Application location	Fixed or moving part
Minimum bend radius (Recommended value) Note 3	Fixed: 30 mm or more Mobile: 50 mm or more

Note 3. The minimum bend radius is the recommended value for stable use.