

**High bending resistance shielded Cat5e LAN cable**

## **C5e (S-HFR) Series**

This is a high flexibility shielded cable which uses a special polymer and a special shield, realizing innovatively high bending resistance. It supports Gigabit Ethernet, and realizes 1 Gbps high-speed data transmission and also supports high-speed data transmission in industrial Ethernet, industrial machine vision, etc.



Raw cable



Standard shielded-type



Screw lock-type

### ■ Outline

High-speed camera image transmission formats that use Gigabit Ethernet are standardized.

Oki Electric cable offers the C5e (S-HFR) Series as the optimum high flexibility shielded cable for industrial applications which support these high camera image transmission formats.

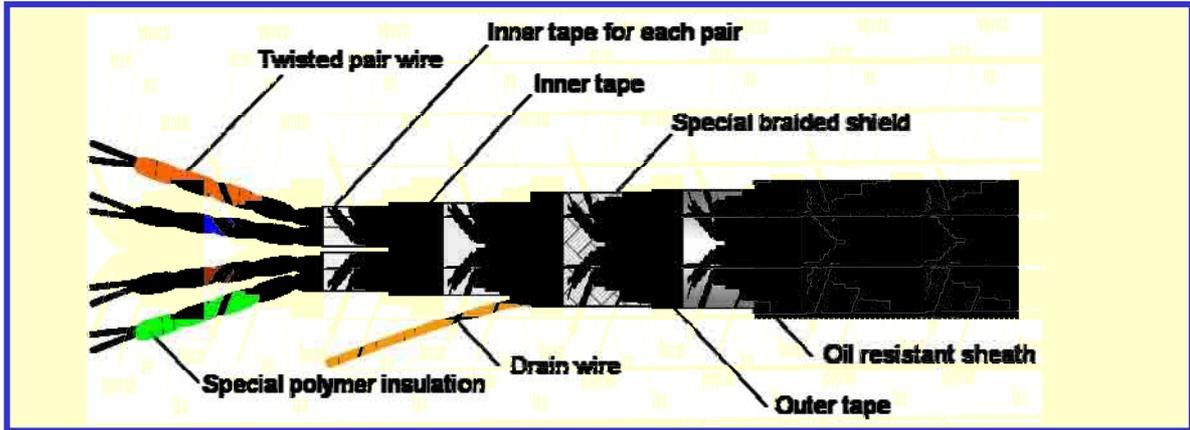
### ■ Applications

- ◆ Can be used as a LAN cable that supports the 1000BASE-T format (transmission speed 1 Gbps).
- ◆ Is suitable for applications such as robots and FA devices which require high bending resistance and sliding resistance.
- ◆ Can be used to connect industrial high-speed cameras to terminal equipment, particularly those that support Ethernet.
- ◆ This cable has an oil resistant sheath, enabling it to be used in severe environments such as those encountered in factories.

### ■ Features

- ◆ This cable is intended for movable applications. It uses high flexibility special polymer insulation and a special braided shield, resulting in high bending resistance and high sliding resistance, and can also withstand twisting motion.
- ◆ The special braided shield increases noise immunity.
- ◆ It supports industrial high-speed camera image transmission formats.
- ◆ It has an oil resistant sheath, making it suitable for use in factory environments, for example.
- ◆ It can be used with general shielded modular plugs.

## Cable construction

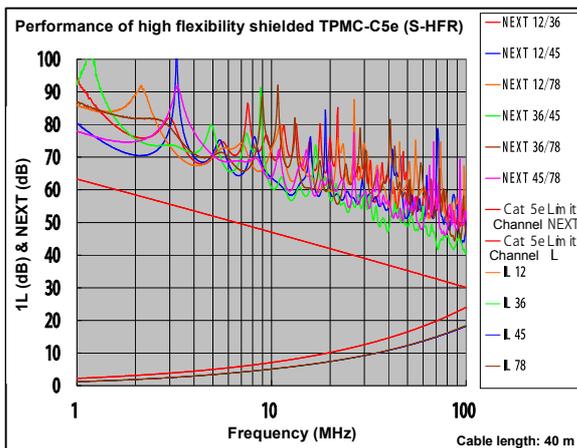


## Construction and performance

### ◆ C5e (S-HFR) Series cable

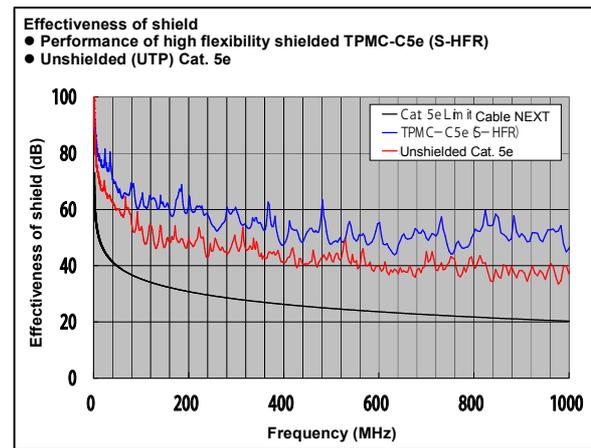
Item		Construction	Item		Construction
Conductor	O.D.	AWG26 twisted wire conductor	Shield	Type	Special braid
	Type	Special polymer		O.D.	5.4 mm
Insulation	O.D.	0.94 mm	Sheath	Type	Oil-resistant PVC
	Number of pairs	4 pairs		O.D.	6.8 mm
Item		Performance	Item		Performance
Max cable length		40 m	Rating		30 V 80°C UL-certified product
Characteristic impedance		100 ± 15Ω	Voltage withstand		AC500V-5 min
Loss		22 dB/40 m max (20°C)	Fire retardancy		UL VW-1
Near-end crosstalk loss		35 dB (@ 100 MHz) min	Oil resistance characteristics		JIS K6723
PSNEXT		32 dB (@ 100 MHz) min	Bending resistance	Sliding	3 million cycles (R50)
Return loss		20 dB (@ 100 MHz) min		Bending	0.3 million cycles (R20)
Conductor resistance		14.9 Ω/km max (20°C)		Twisting	5 million cycles (±180 °)

## Performance



- Has adequate performance margin for both crosstalk (NEXT) and loss (IL) with respect to the transmission standard for gigabit Ethernet.

- ◆ Please contact us regarding compatible modular plugs.
- ◆ The transmittable distance is the channel length.
- ◆ Please contact us for details of the bending resistance. The above data is based on our condition which is not guaranteed figures.



- The shielding effect of the high flexibility shielded C5e (S-HFR) Series cable is about 10 dB compared to the unshielded (UTP) Cat. 5e cable.

The colors shown in this catalog may differ slightly from those of the actual product due to the printing process. The contents of this catalog are applicable as of Dec. 2008. Please note that the specifications, etc., may be changed without prior notification.

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