

Featuring twice the maximum transmission distance and enhanced noise resistance over conventional model !

USB3 Vision Active Optical Cables

Features

- New** ● **Maximum transmission distance of 40m^{*1}**
Doubled the transmission distance over conventional models.
- New** ● **Excellent noise resistance to harsh industrial environments**
Passed the EFT/B test level 4.^{*2} (Peak voltage: Greater than 2kV).
- New** ● **Smallest diameter in its class**
The outer diameter is just 4.8mm^{*1}. This allows easy wiring even in compact devices with limited wiring space.
- **No external power supply required**
Can be powered by the USB bus.
- **Sliding/bending performance : More than 1 million times^{*3}**
- **A screw lock to ensure highly reliable connection^{*4}**



Product name

USB3 – ○○○ – A – MBS – △△△
(1) (2) (3) (4)

- (1) ○○○ : Cable type symbol / High-performance : AVS / Standard : AV / Small diameter : AVT
- (2) A : Connector on board side (Standard A).
- (3) MBS : Connector symbol on camera side (Micro B with screw lock).
- (4) △△△ : Cable length e.g. 0.5m : 005, 1m : 010, 10m : 100



Specifications and performance

		Conventional product		Conventional product
Type		High-performance (AVS)	Standard (AV)	Small-diameter (AVT)
Cable	UL (Rating)	UL758 Style20276 (80°C/30V)		
	Jacket material (color)	Oil-resistant PVC (orange)		
	Outer diameter	Standard 4.8mm	Standard 7.0mm	Standard 5.8mm
Connector type		Standard A ↔ Micro B (with a screw lock)		
Power supply		5 ± 0.25V (Power is supplied from the USB3.0 port)		
Consumption current		200mA max.	100mA max.	
Transmission distance		Up to 20m ^{*5}	Standard 13m (Up to 20m)	Standard 8m (Up to 10m)
Noise resistance		2kV (EFT/B level 4) ^{*2}	0.2kV (FET/B level 1) ^{*2}	
Movability (Sliding / bending)		More than 1 million times ^{*3,6} (R=70mm)	More than 100 million times ^{*6} (R=70mm)	More than 50 million times ^{*6} (R=70mm)

*1. For the high-performance (AVS) type.

*2. EFT / B test : Electrical fast transient/burst immunity test Based on JIS C61000-4.4.

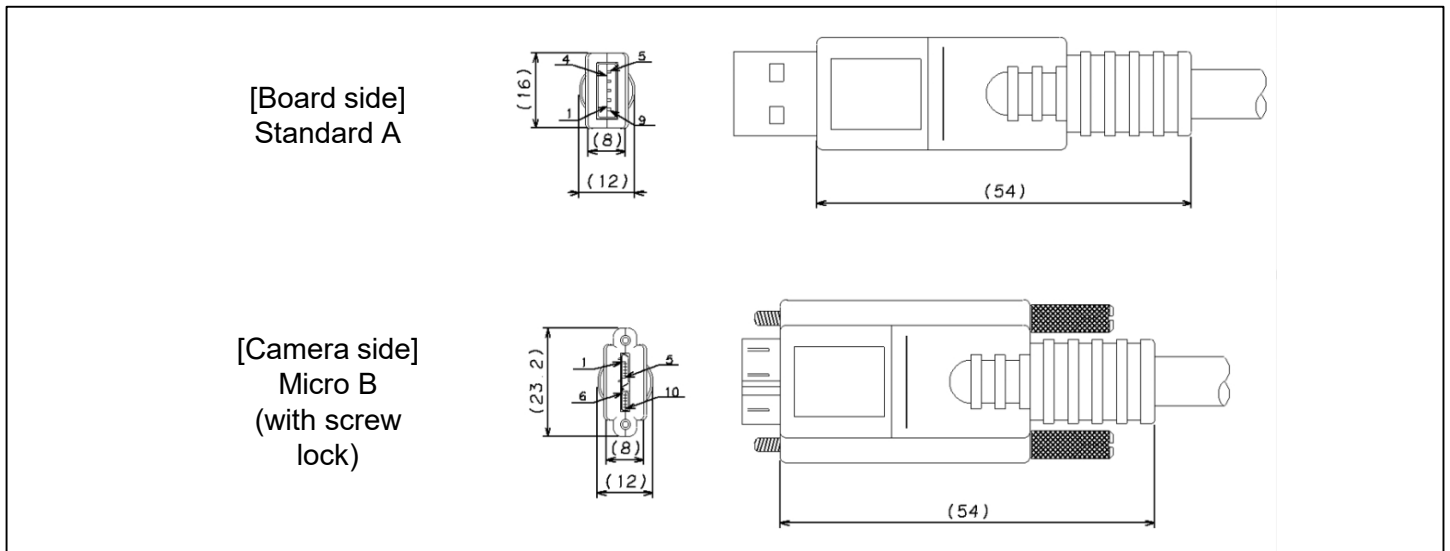
*3. Over 50 million times without taking noise resistance into account.

*4. Micro B connector only.

*5. Cannot be used with cameras with power consumption of 3.5W or higher.

*6. These are reference values based on in-house evaluation, not guaranteed values.

Connector dimensions



[Glossary of terms]

●Active optical cable

Also abbreviated AOC (which stands for Active Optical Cable), these electric-optic conversion cables enable high-speed and long-distance data transmission that is difficult to achieve with conventional cables using metallic conductors.

●Machine vision system

A machine vision system is designed to capture images with cameras replacing the human eye and perform processes such as positioning, classification, measurement and inspection. A machine vision system consists of digital cameras, image processing equipment, and so on. Machine vision systems are being rapidly adopted in manufacturing industries, replacing human inspectors in inspection processes for electronic components, semiconductor, automobiles, food pharmaceutical products, etc..

Applications such as in-vehicle cameras and security monitoring cameras that are parts of a traffic monitoring system such as highway monitoring and ITS (intelligent transport system) are also considered as machine vision systems.

●Sliding / bending

Repetitive reciprocating movement of the cable while bending it in a U-shape and sliding it linearly.

●EFT / B test (Electrical fast transient / burst immunity test)

This test checks the noise resistance when pulse noise enters power voltage or input signals. It is designed to assess the influence of noise that primarily occurs when contacts are opened/closed in switches or relays.

High-voltage pulse noise is applied on the cable to assess its influence on the data transmission. (JIS C61000-4.4).

Oki Electric Cable's Gunma and Okaya factories have acquired the ISO14001 environmental management system certification.

Oki Electric Cable Co., Ltd., has been certified by ISO9001 Quality Management System.

●Printed product colors may differ slightly from the actual product colors.

●Information in this document is as of May 2018 and may change without prior notice.

Available products	Robot cables, Machine Vision interface cables, PCF Optical cables / Cords / Components, eco-friendly cables, LAN cables / Components, Electronic cables (OKIFLEX), communication cables (intra-city, office, local, etc.), motor cables, Electric Discharge Machining wires, Flexible Printed Circuit, Rigid Flex Circuit
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Oki Electric Cable Co., Ltd.

Head office

2-12-8 Shimokodanaka, Nakahara-ku, Kawasaki-shi, Kanagawa 211-8585 Japan

<http://www.okidensen.co.jp/en/>

TEL : +81-44-754-4369

Email : oec-ovssales@oki.com