



# SINGLE PAIR ETHERNET



## ABOUT SINBON

SINBON now is a member of Single Pair Ethernet Partner Network, an equal association of companies that promotes Single Pair Ethernet technology as the basis for rapid and successful growth of the IIoT (Industrial Internet of Things). With our expertise in cable assemblies, we are able to offer a complete solution for the market applications where Single Pair Ethernet is required.

Any question, please contact

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In line with the recent trends, SINBON has been highly involved in research and development of faster and simpler solutions in Ethernet communication which includes SPE cables. Originally created for the automotive industry, SPE now depicts a perfect balance of speed, distance and power delivery for a wide variety of IIoT projects. Ethernet has already been the most popular communication protocol in LAN applications since the 1980s, and since then it has been persistently advancing into new fields of application. Ethernet has the fastest transmission of information via TCP/IP and has a wide application in various fields.



### Innovative

A key enabling technology for industry 4.0 and IIoT



### Cost-effective

Reduces total installation costs by 25%



### Lighter and Thinner

2 to 3 times smaller than 4-pair Ethernet cabling



### Fast Connection

Transmission characteristics of up to 1 GBit/s



### Cross-application

Can be used across various applications

## M8 HYBRID SPE CABLE ASSEMBLY

### Connector Specification

Connector Locking System	Bayonet
Type of Connector	Crimp
Rated Current	8A (Power Pin) & 4A (Signal Pin)
Rated Voltage	60V DC
Contact Material	Copper alloy, Gold plating
Overmolding Material	TPU

### Cable Specification

Cable Length	0.5m, 1m, 2m
Cable Structure	2*26 AWG + 2*18 AWG
Cable Outer Diameter	7.0 mm
Outer Jacket Material	PUR
Outer Jacket Color	Matte Black

### Signal Properties

Transmission Speed	1 Gbps
Bandwidth	600 MHz



## Mechanical Properties

IP Rating	IP67 (Mated) & IP65 (Unmated)
Mating Cycles	500 mating cycles
Anti-vibration	Yes

## Electrical Properties

Hi-pot Voltage	300 V DC
Contact Resistance	2 $\Omega$ Max.
Insulation Resistance	10 M $\Omega$ Min.



## Environmental Features

Flame Resistance	VW-1
Oil Resistance	UL 758
Chemical Resistance	UL 1581
Halogen-free	Yes
Silicone-free	Yes
RoHS Compliance	Yes

## Working Conditions

Operation Temperature	-40 °C to +80 °C
Storage/Transport Temperature	-25 °C to +80 °C

## Verification Standards

IEC 63171-6 Ed. 1.0
IEEE 802.3bu
IEEE 802.3bp (1000BASE-T1)
IEC 60512-6-3 Test 6c Shock Test
IEC 60512-6-4 Test 6d Vibration Test
IEC 60512-9-1 Test 9a Endurance Test
IEC 60332-1-2 Flame Resistant Test
EN 60811-404 Oil Immersion Test

