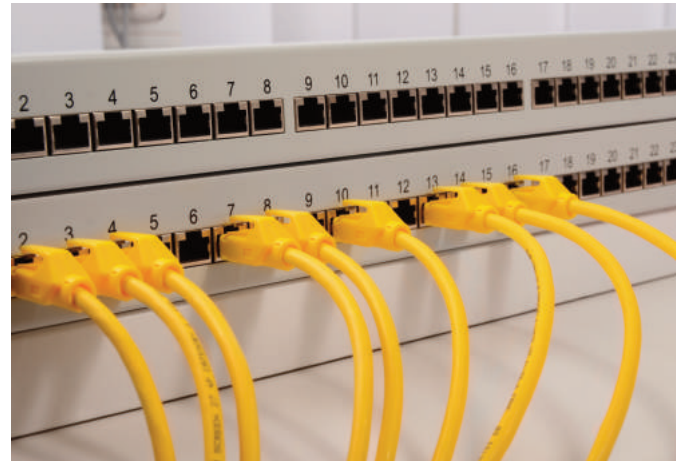
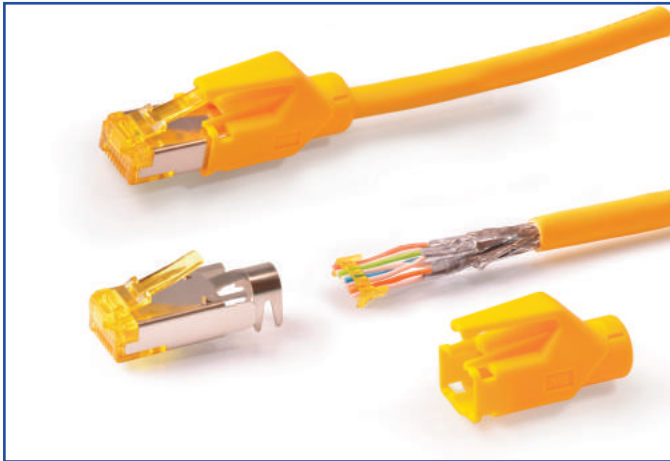


# Modular Plug Connectors compliant to Cat.6<sub>A</sub> Standard

## TM31P Series



### ■ Features

#### 1. Support High-Speed LAN transmission

Improved performance by two row contact arrangement. Conforms to Cat.6<sub>A</sub> requirements of ISO/IEC 11801, confirmed by GHMT. The product is suitable for the use in 10G-Ethernet applications.

#### 2. EMI protection

360° coverage of the engagement area with a metal shield assures protection against electromagnetic interference. When mated with corresponding connector the shield surfaces are securely connected to provide continuous circuit.

#### 3. Protected latch tab

Flexible case extends over the release tab preventing the possibility of breaking-off during handling of the complete cable assembly.

#### 4. Termination of conductors

Self located AWG 24-27 stranded conductors are terminated against pre-inserted contacts using simple tooling.

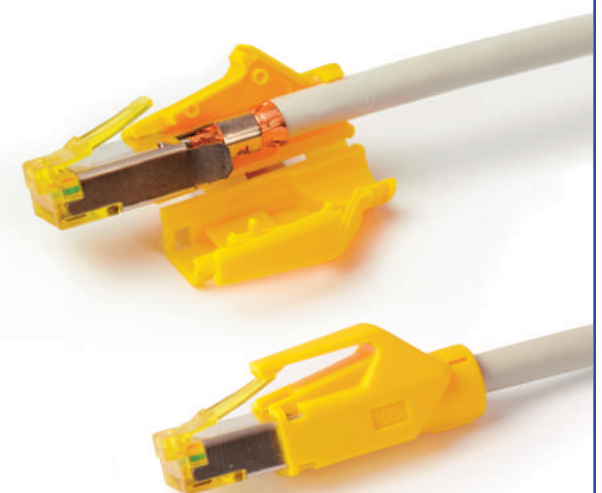
#### 5. Simplified termination (cover)

Removable one piece covers allows easy access to the termination areas.

### Protected latch tab



### Cover Installation Procedure



## Product Specifications

Rating	Current Rating: 1.0A	Operating temperature range: -55°C to +85°C (note)
	Voltage Rating: 125V AC	
Item	Specifications	Conditions
1. Insulation resistance	100MΩ min.	100V DC
2. Proof voltage (between adjacent contacts)	No flashover or breakdown	500V AC for 1min.
3. Proof voltage (between contact and shield)	No flashover or breakdown	500V AC for 1min.
4. Contact resistance	50mΩ max. (without bulk resistance of cable)	100mA (DC or 1000Hz AC)
5. Vibration	1) No electrical discontinuity of 1μs 2) Contact resistance: 70mΩ max. (without bulk resistance of cable)	Frequency 10 to 55Hz, Single Amplitude 0.75mm, at 2h for 3 axial directions
6. Shock	3) No damage, crack and looseness of parts	
7. Durability	Contact resistance: 70mΩ max.	750 mating/unmating cycles
8. Temperature cycle	1) Contact resistance: 70mΩ max. (without bulk resistance of cable) 2) Insulation resistance: 100mΩ min. 3) No damage, crack and looseness of parts	Temperature: - 55 → 15 to 35 → 85 → 15 to 35°C; Time: 30 → 2 to 3 → 30 → 2 to 3 minutes 5 cycles
9. Humidity	1) Contact resistance: 70mΩ max. 2) No damage, crack and looseness of parts	90% to 95% RH, at 40°C
10. Salt Spray	1) Contact resistance: 70mΩ max. (without bulk resistance of cable) 2) No damage, crack and looseness of parts	Exposed in 5% Salt Water Spray for 48h

Note: includes temperature rise caused by current flow

## Materials

Part	Material	Finish	Remarks
Insulator	Polycarbonate	Color: Yellow	UL94V-2
Contacts	Copper alloy	Contact area: Gold plating	-
Shield	Stainless steel	Nickel plating	-
Conductor holding tray	Polycarbonate	Color: Yellow	UL94V-2
Cover	Polyamide	Color: see page 4	UL94V-2

## Ordering information

### ● Plugs - shielded



**TM31P - TM - 8 8P (61)**

①

② ③

① Series name: TM31P
② Size: 8: For 8 contacts
③ Inserted contacts: 8P: 8

Packing unit: 4.000pcs

### ● Guide Plate



**TM31P - TM - 88P (62)**

Packing unit: 1.000pcs

### ● Covers



**TM21P - 88P (#)**

①

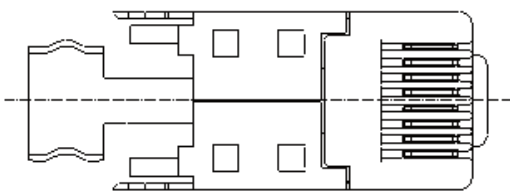
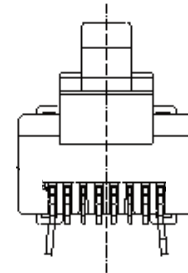
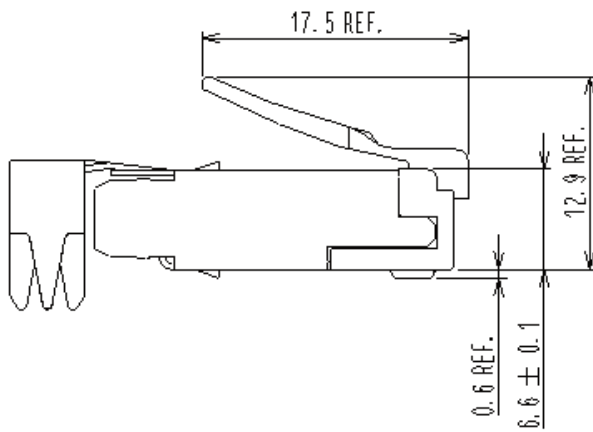
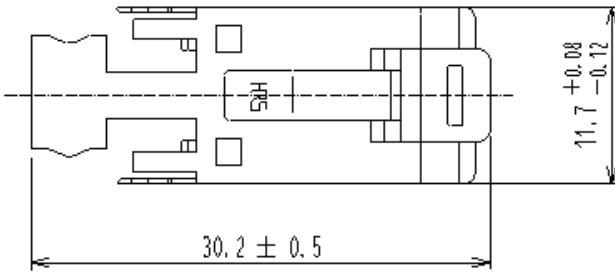
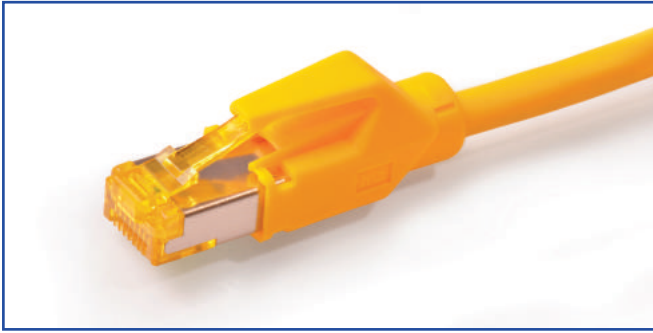
②

① Series name: TM21P(*)
② Color code: see table page 4

(\*) This cover is applicable for TM21P and TM31P

Packing unit: 50pcs

## ■ Plug connectors Specification



(\*) Dimensions in mm.

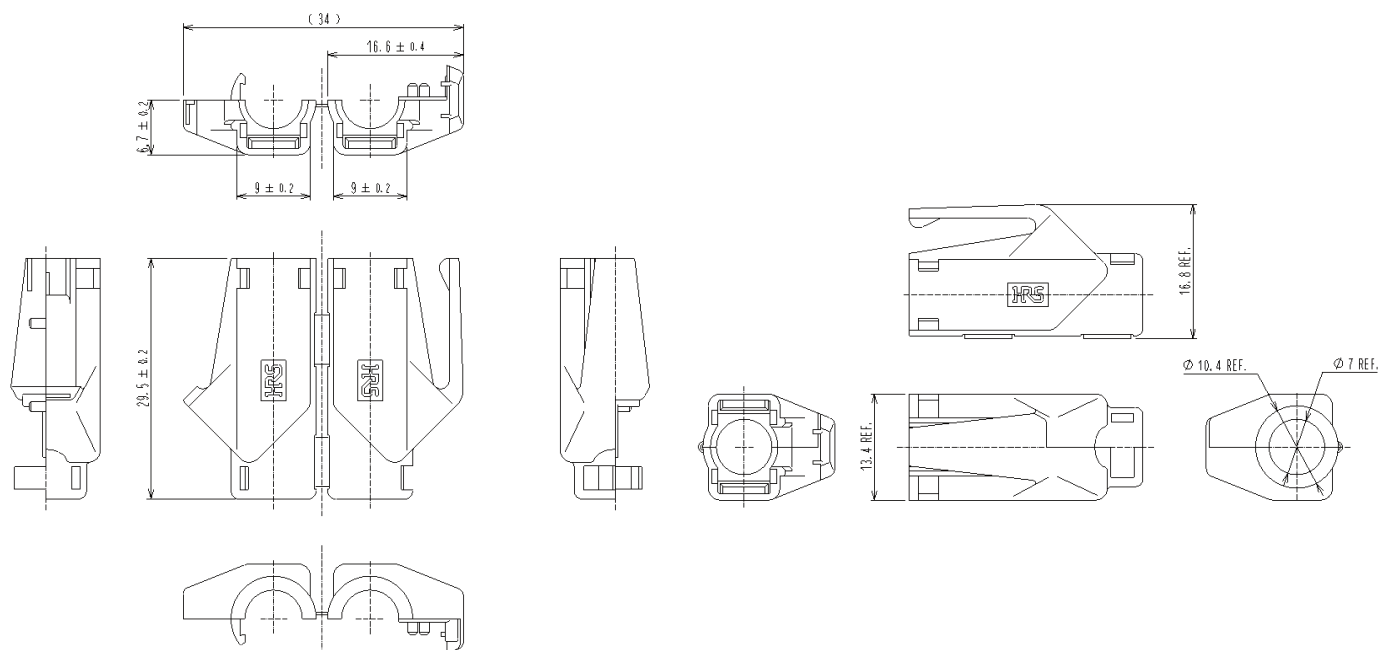
## ■ Plug covers



Foldable cover with protected latch tab

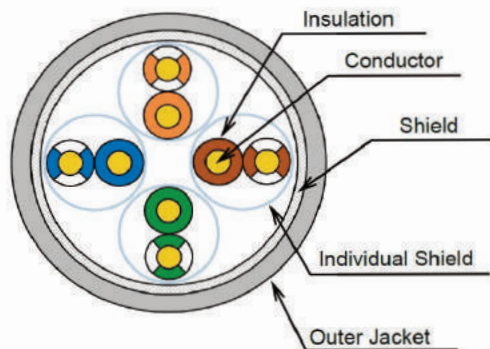
Part No. for cover	Color
TM21P-88P (11)	Light beige
TM21P-88P (12)	Medium gray
TM21P-88P (13)	Black
TM21P-88P (14)	Natural light gray
TM21P-88P (15)	Red
TM21P-88P (16)	Green
TM21P-88P (17)	Blue
TM21P-88P (18)	Yellow
TM21P-88P (19)	Orange

Note: Cover of TM21P series are used for TM31P series



(\* Dimensions in mm.

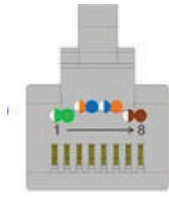
## ■ Applicable Shielded Cable Specifications



Specifications	
Conductor	Stranded copper conductor: AWG 24-27 x 7
Individual conductor insulation dia.	0.9 - 1.0mm
Overall jacket dia.	5.8 - 6.0mm

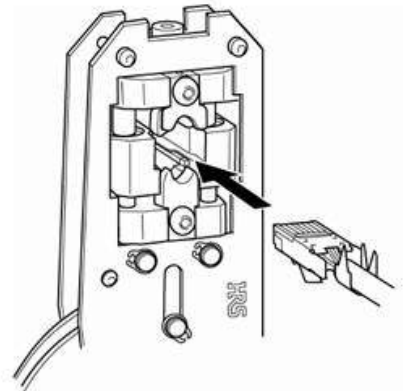
Note: For cable termination procedures, please contact Hirose representative

## ■ Contact Arrangement



Contact arrangement in two rows results in improved performance (Contacts No. 3, 4, 5 and 6 are isolated from contacts No. 1, 2, 7 and 8).

## ■ Hand tool



Part number	CL No.	Applicable Connector Series
HT601 / TM21P-88P	FB-TM21	TM31P TM21P TM11P