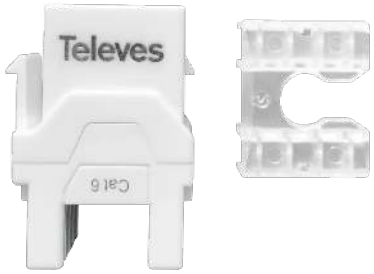
RJ45 female connector UTP Cat 6 for data cables



RJ45 UTP Cat 6 female connector, reusable and easy to connect. Assembly using a specific tool is recommended to guarantee a perfect finish.

Recommended for PoE and PoE+.

Ref.	209901
Logical ref.	CAT6B-U
EAN13	8424450162828

Other features	
Colour	White
Supply method	Plastic box (15 units)
Connection type	Female

Packaging info	
Plastic box	15 pcs.

Physical data	
Net weight	6.00 g
Gross volume	0.03 dm^3
Gross weight	9.00 g
Width	22.00 mm
Height	30.00 mm
Depth	16.00 mm
Main product weight	6.00 g

Highlights

- Self-crimpable connector, although the use of a termination and cutting tool is recommended to optimize connections (ref.209811)
- Reusable: can be removed and reinstalled without deteriorating or losing functionality
- Technically compatible with PoE/PoE+/PoE++ (Power over Ethernet) technology, allowing the cable to power network devices
- Multiple-connection guaranteed without losses
- Compatible with Cat 6 or below
- Front (180º) or angled (90º) cable input
- Connection table (A or B) on the connector

- 50 microns gold-plated pins

Discover

What is the RJ45?

The RJ45 is a connector commonly used in structured cable networks. With up to 8 connection pins, it is adequate both for data networks (8 pairs), as well as telephone networks (2 pairs). It is usually used in networks compliant with standards TIA/EIA-568-B.

Compatibility of RJ45 connectors with Televes data cables:

Reference		CAT 6							CAT 6A				CAT 7	CAT 7A
		212201	212330	2123	212302	212305	212310	212101	219302	219312	219322	219332	219102	219202
Female connectors	209901/209907	OK	OK	OK	OK	OK	OK	X	X	X	X	X	X	X
	209905	OK	OK	OK	OK	OK	OK	X	X	X	X	X	X	X
	209921/209925	OK	OK	OK	OK	OK	OK	X	X	OK	X	OK	X	X
	209926	OK	OK	OK	OK	OK	OK	X	X	OK	X	OK	X	X
	209903	OK*	OK*	OK*	OK*	OK*	OK*	OK	X	X	X	X	X	X
	209923	OK*	OK*	OK*	OK*	OK*	OK*	OK	OK	OK*	OK	OK*	**	**
	209929/209501	OK*	OK*	OK*	OK*	OK*	OK*	OK	OK	OK*	OK	OK*	**	**
Male connectors	209902	OK	OK	OK	OK	OK	OK	X	X	X	X	X	X	X
	209961/209962	OK	OK	OK	OK	OK	OK	X	X	X	X	X	X	X
	209904	OK*	OK*	OK*	OK*	OK*	OK*	OK	X	X	X	X	X	X
	209906	OK	OK	OK	OK	OK	OK	X	X	X	X	X	X	X
	209965/209966	OK	OK	OK	OK	OK	OK	X	X	X	X	X	X	X
	209922	OK*	OK*	OK*	OK*	OK*	OK*	X	X	OK	X	OK	X	X
	209924	OK*	OK*	OK*	OK*	OK*	OK*	OK*	OK	OK*	OK	OK	**	**

OK Compatible
OK* Compatible, but there are better choices
X Incompatible
** Mechanical compatibility

What is the PoE technology?

PoE (Power over Ethernet) technology enables the simultaneous transmission of power and data over the same Ethernet network cable, eliminating the need for separate power supplies. Currently, there are three main standards: IEEE 802.3af (PoE), IEEE 802.3at (PoE+), and IEEE 802.3bt (PoE++/4PPoE).
The latter defines two additional types (Type 3 and Type 4) with higher power levels, making four PoE levels in total.
The three aspects that differentiate the different types of PoE are:

- Maximum PSE (Power Sourcing Equipment) Power: Indicates the maximum amount of electrical power that can be supplied by an equipment over the Ethernet cable.

- Power for the PD (Powered Device): This is the electrical power that can be received by the device powered by the cable.
- Number of Twisted Pairs Used: Refers to how many twisted pairs in the Ethernet cable are used to deliver electrical power.

Standard	Type of PoE		Maximum PSE Power	Power for the PD	No. of Pairs Used
IEEE 802.3af	Type 1	PoE	15.4W	12.95W	2
IEEE 802.3at	Type 2	PoE+	30W	25.5W	2
IEEE 802.3bt	Type 3	PoE++	60W	51W	4
	Type 4	4PPoE	90-100W	71W	4

Recommended uses according to PoE type:

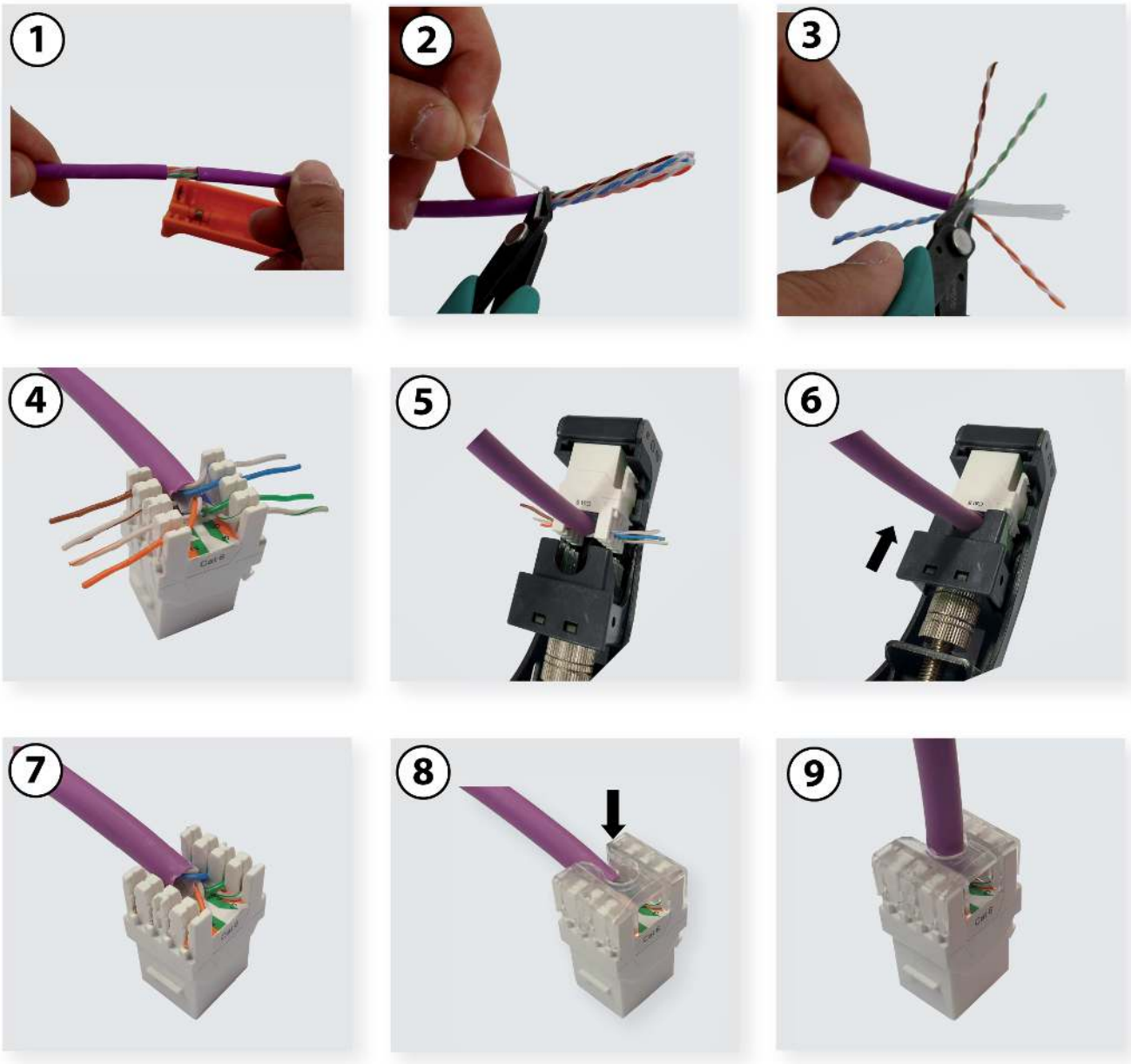
- Type 1: IP phones, basic IP cameras. low-demand Wi-Fi access points, sensors or simple IoT devices.
- Type 2: Dual band Wi-Fi access points, IP motion cameras (PTZ), IP video phones, alarm systems.
- Type 3: Wi-Fi 6 / Wi-Fi 6E access points, heated PTZ cameras, multimedia terminals, video conferencing equipment.
- Type 4: Monitors or touch screens, desktops, high-performance network equipment.

Devices compatible with a specific type of PoE can also be powered using a higher type, which provides greater versatility and scalability in installations.
The recommended data cables and connectors for Types 3 and 4 are CAT6A and above with shielding. This recommendation is based on their better ability to dissipate the heat generated during the transmission of electrical power.
CAT6A UTP cables and connectors are technically compatible with PoE++ technology, but they may present limitations over distances greater than 55 m. Since they lack shielding, thermal dissipation is less efficient, which can cause voltage drops along the run and affect the proper operation of the powered device. This also happens with CAT5e and CAT6; they are compatible with PoE++ but not recommended for distances over 55 m.
Main advantages of PoE technology in installations:

- Quick and cost-effective installation by using the same cable for power and data transmission.
- Greater installation flexibility as there is no need to rely on auxiliary power sockets.
- More efficient management and optimised maintenance thanks to the monitoring and administration of the power supply of all equipment from a single point.
- Cost reduction by avoiding electrical conduits and external power supplies.
- Increased safety by minimising electrical risks in the installation, thanks to the use of low voltage.

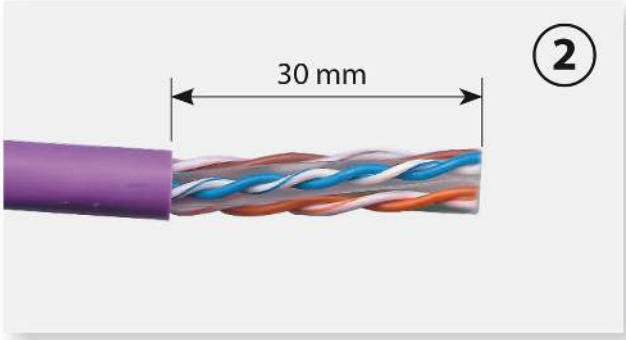
Mounting details

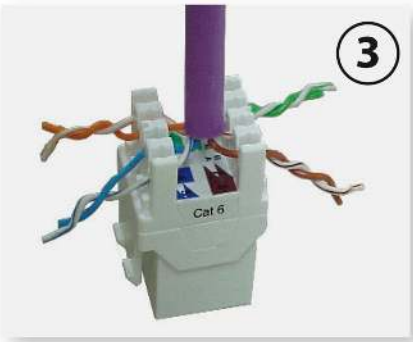
Assembly with tool

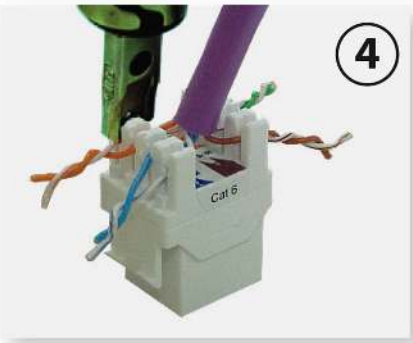


Assembly without tool


1
2
1
B
A
7
8
3
6
B
A
4
5


2
30 mm


3
Cat 6


4
Cat 6


5

Technical specifications

Ref. 209901

Data connector model		Female
Data connector type		RJ45
Categorie		Cat 6
Transfer rate		1Gbps
Shielding type		UTP
Housing material		Polycarbonate
Voltage max.	Vac	150
Max. current	A	1.5
Contact resistance	mΩ	100
Insulation resistance	MΩ	500
Dielectric strength (60Hz/1min)	Vac	1000
Conductor type AWG		26 ... 23
Special tool required		Recommended
Durability (connection cycles)		1500
Reusable		Yes
Cable output		90º-180º