Televes

RJ45 female connector Wing nut type UTP Cat 6A for data cables

RJ45 UTP Cat 6A female connector, reusable and easy to connect since no specific tools are required. The connector allows self-crimping by rotating the wing nut built into the rear part.

Recommended for PoE and PoE+.

Ref.	209998
Logical ref.	CAT6AB-US80
EAN13	8424450332702

Other features

Colour	Black
Supply method	Bulk

Packaging info

Box	80 pcs.

Physical data

Net weight	7.00 g
Gross volume	0.03 dm³
Gross weight	7.00 g
Width	30.00 mm
Height	23.00 mm
Depth	16.00 mm
Main product weight	7.00 g

Highlights

- Wing nut-type connector: the rotation of the wing nut guarantees the necessary fixation and mechanical reliability

- No tools required: crimping is done by turning the wingnut with the fingers
- Reusable: can be removed and reinstalled without deteriorating or losing functionality
- Multiple-connection guaranteed without losses
- Technically compatible with PoE/PoE+/PoE++ (Power over Ethernet) technology, allowing the cable to power network devices
- Optimal for Cat 6A UTP, Cat 6 UTP, Cat 5e UTP and Cat 5 UTP
- Front (180º) cable input
- Labels with connection diagrams (A or B) are included 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++ 4PPoE	60W	51W	4
	Type 4		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.

Technical specifications : Ref. 209998

Data connector model		Female
Data connector type		RJ45
Categorie		Cat 6A
Shielding type		UTP
Housing material		Polycarbonate
Voltage max.	Vac	125
Max. current	mA	1.5
Contact resistance	mΩ	20
Insulation resistance	MΩ	1000
Dielectric strength (60Hz/1min)	Vac	750
Conductor type AWG		26 ... 23
Special tool required		No
Durability (connection cycles)		750
Reusable		Yes
Cable output		180º