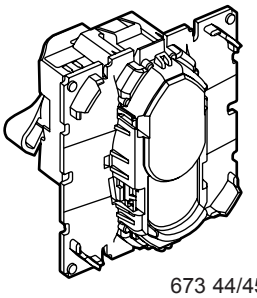
87045 LIMOGES Cedex
Telephone: +33 (0)5 55 06 87 87 – Fax: +33 (0)5 55 06 88 88

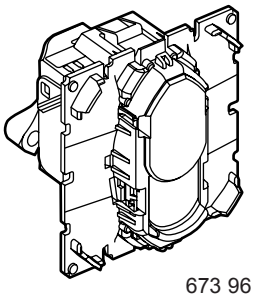
## Céliane™

# LCS² Cat. 6 RJ45 socket

**Catalogue number(s): 673 44/45/96**



673 44/45



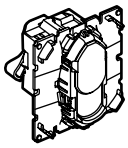
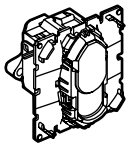
673 96

**CONTENTS** Page

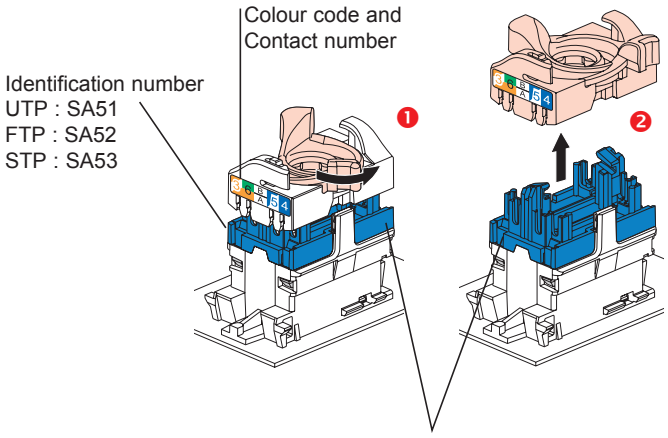
1. General characteristics. . . . . 1
2. Presentation . . . . . 1
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4. Technical characteristics . . . . . 1
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## 1. GENERAL CHARACTERISTICS

Category 6 RJ45 socket.
Enables high speed data transmission (Gigabit Ethernet).

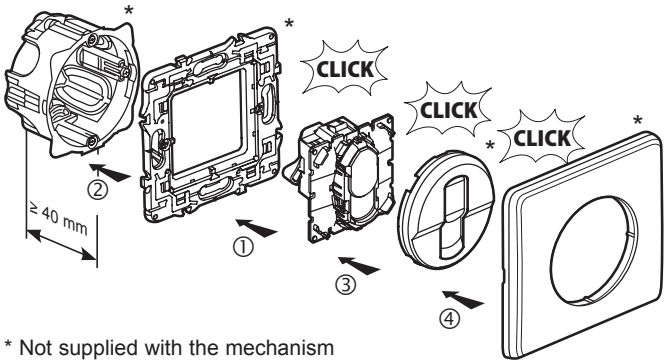
| | Designation | UTP | FTP | STP | Weight (g) |
|---|---|---|---|---|---|
|  | Cat. 6 UTP RJ45 Socket | 673 44 | | | 13 |
| | Cat. 6 UTP RJ45 socket | | 673 45 | | 13 |
|  | Cat. 6 STP RJ45 Socket | | | 673 96 | 29 |

## 2. PRESENTATION




Category colour code: Cat. 6 blue

## 3. INSTALLATION

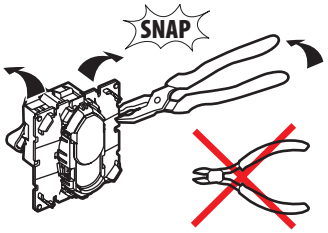



* Not supplied with the mechanism

1 - Clip the mechanism onto the support frame from the front.
2 - Screw the mechanism/support frame assembly to the flush-mounting box.
3 - Clip the cover plate onto the mechanism.
4 - Clip the plate onto the support frame.

Can be fitted with all Céliane finishes.
Multi-gang horizontal and vertical mounting.

Can be double-mounted after breaking off fins.




## 4. TECHNICAL CHARACTERISTICS

### 4.1 Material characteristics

Contacts: gold/nickel, thickness of gold > 0.8 µm min.
Metal parts: bronze, nickel, platinum, gold
PBT polycarbonate
For STP products the body and the separator are made of metal alloy with a copper/nickel coating.

### 4.2 Electrical characteristics

Breakdown voltage ≥ 1000 V.
Contact resistance ≤ 20 mΩ.
Insulation resistance ≥ 500 MΩ at 100 V DC.
Connector tested and guaranteed to support POE signals, standard IEEE 802.3af and POE+, draft standards 802.3at, up to 2500 connections and disconnections with load.

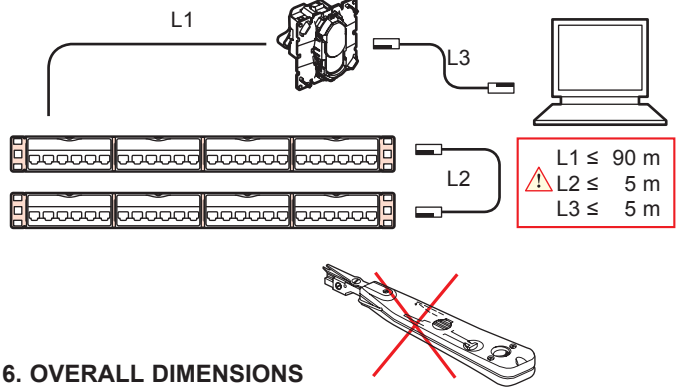
Tests are carried out with 2 simultaneous POE+ circuits producing a minimum total power of 50W.

## 4. TECHNICAL CHARACTERISTICS *(cont.)*

**4.3 Mechanical characteristics**
Max. number of connections and disconnections: 5 without refreshing the cable
Endurance: 2500 movements (plug insertion/withdrawal)
IK03

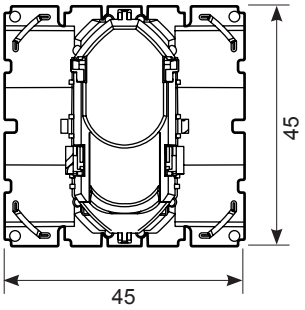
**4.4 Climatic characteristics**
Operating temperature: - 40°C to + 70°C
Humid heat cycle 21 days

## 5. CONNECTION

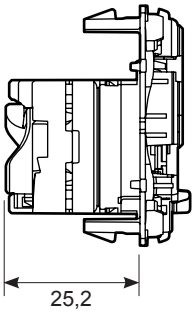



## 6. OVERALL DIMENSIONS

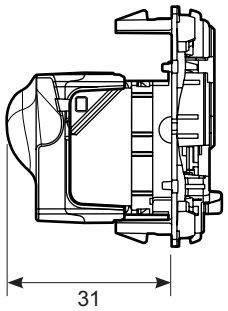
Front view:
**673 44/45/96**




Side view:
**673 44/45**



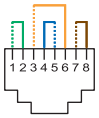

**673 96**



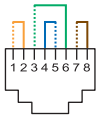

## 7. USUAL CONNECTION OF RJ45 SOCKETS

Accepts the following cable connectors:
RJ11 (4 contacts), RJ12 (6 contacts), RJ45 (9 contacts).

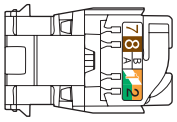
Double colour code EIA - TIA 568 A and B on terminals:
- UTP 8 contacts
- FTP 9 contacts
- STP 9 contacts with 360° shield

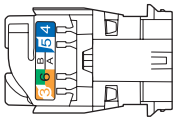



**EIA 568 A**




**EIA 568 B**

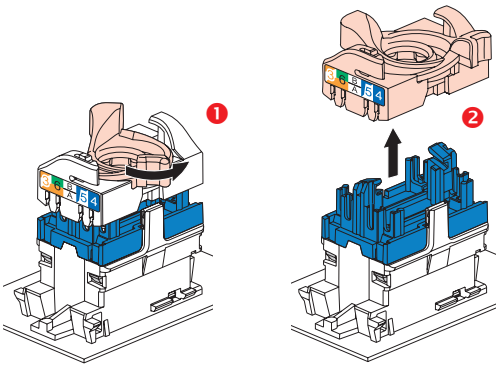




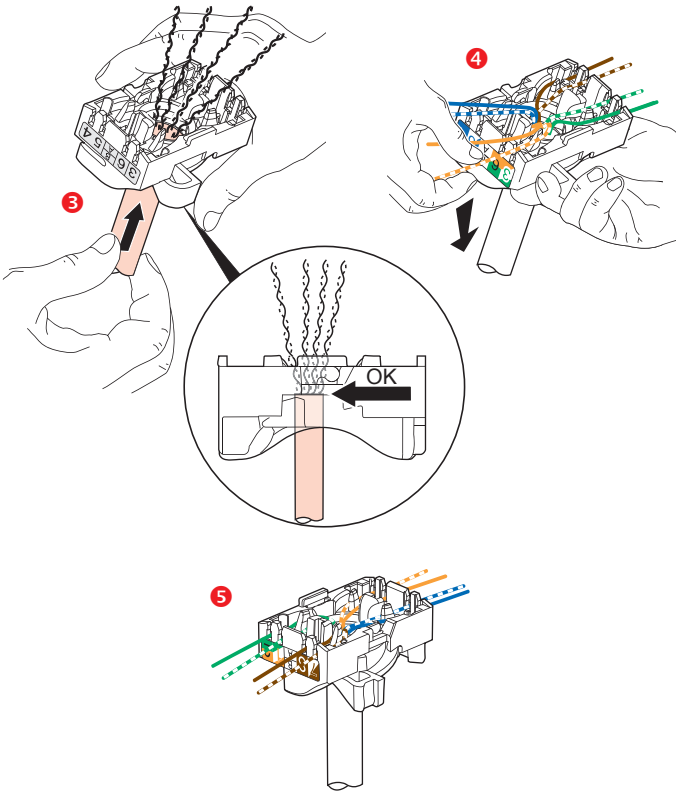
## 7. USUAL CONNECTION OF RJ45 SOCKETS *(cont.)*

Conductors supported:
- Single-strand: 0.5 to 0.65 mm, AWG 22 to 25
- Multi-strand: AWG 26
- Polyethylene conductor insulation: max. Ø with insulation 1.58 mm

The RJ45 connectors are equipped with a rotating locking system that does not require special tools and enables rewiring in the event of error.




This system allows the wire pairs to be spread easily before attaching them to the connector.




Spreading the wires ensures that pairs are separated by the required 13 mm.
Spreading the pairs at 90° in relation to the cable ensures the best performance levels.

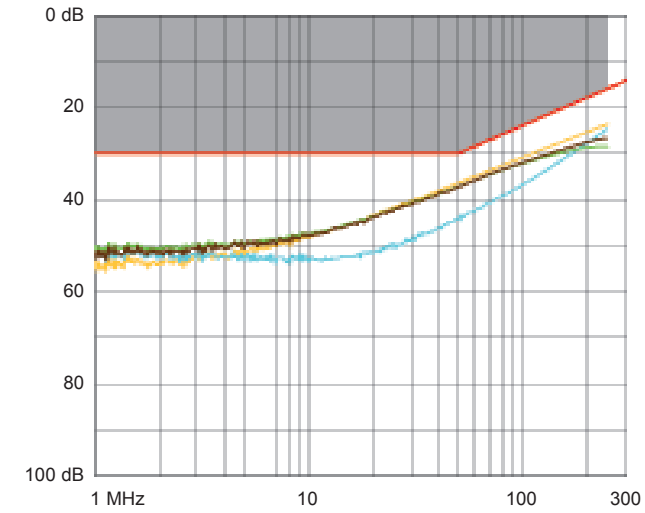
## 8. STANDARDS AND APPROVALS

Conforms to standards: ISO/IEC 11801 Edition 2
CENELEC EN 50173-1 2007
ANSI/EIA/TIA 568-B.2-1
IEC series 60603-7

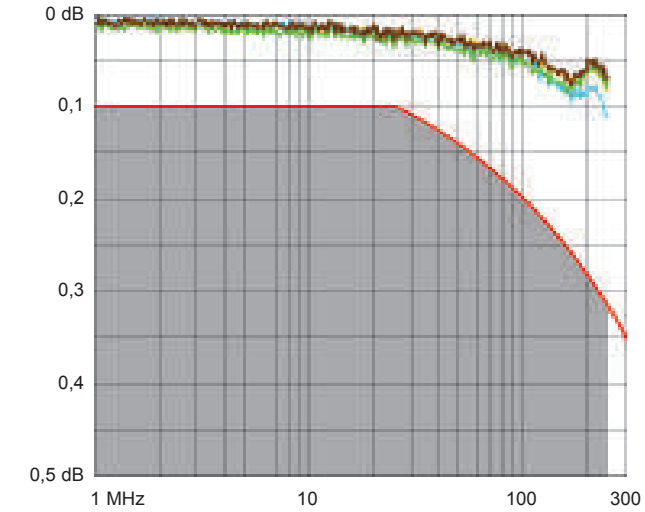
## 9. PERFORMANCE

### 9.1 Component performance (RJ45 connectors)

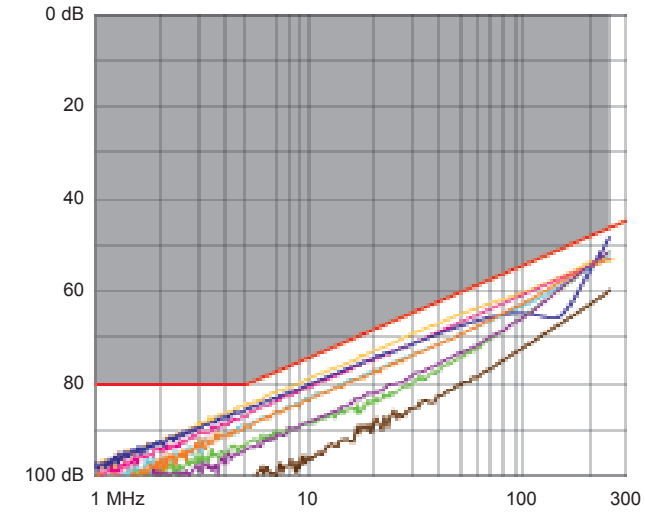
Return loss




Attenuation



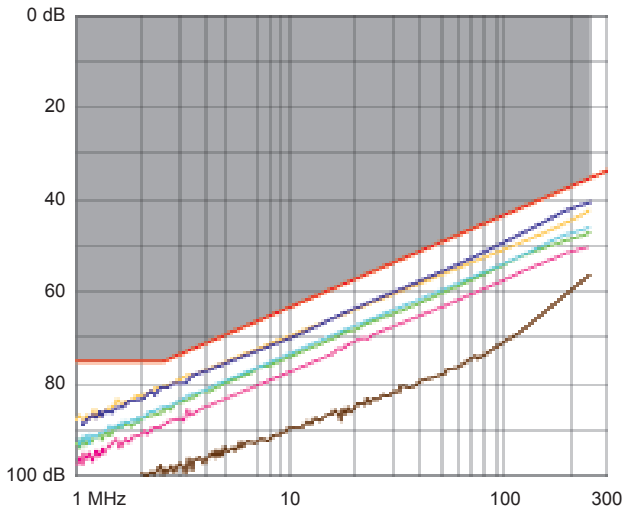

NEXT (Near end Crosstalk Attenuation)




## 9. PERFORMANCE *(cont.)*

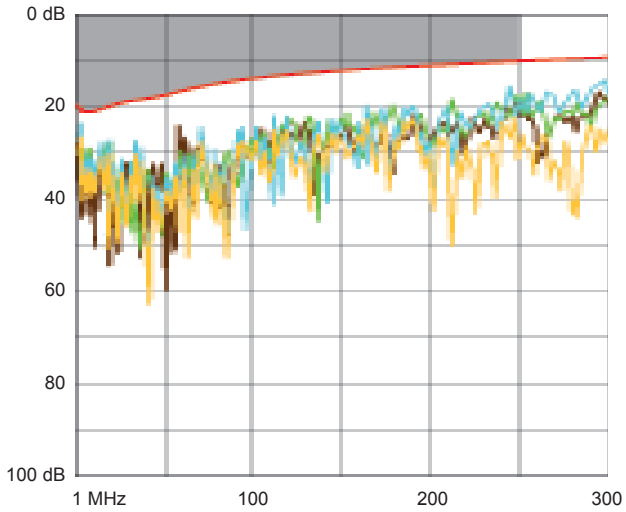
### 9.1 Component performance (RJ45 connectors) *(cont.)*

FEXT (Far end Crosstalk Attenuation)

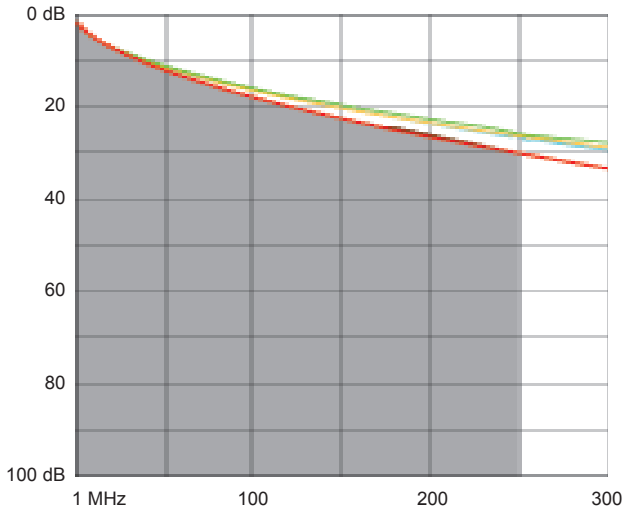



### 9.2 Permanent link performance with F/UTP cable

Return loss



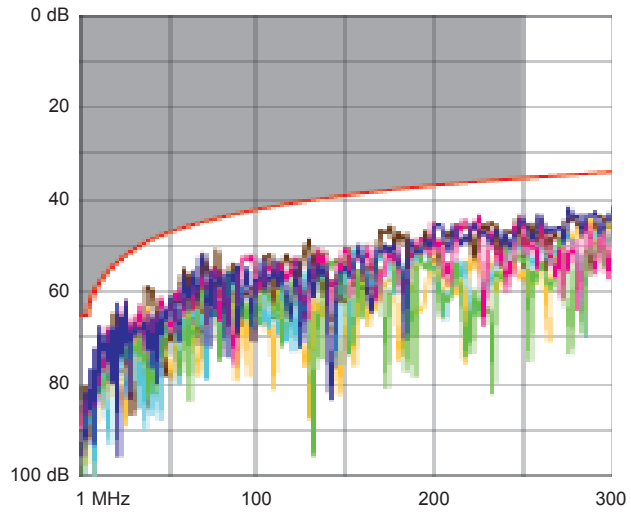

Attenuation



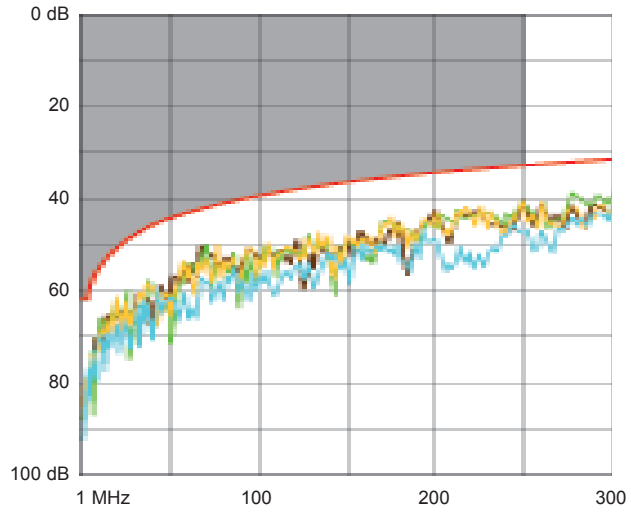
## 9. PERFORMANCE *(cont.)*

**9.2 Permanent link performance with F/UTP cable** *(cont.)*

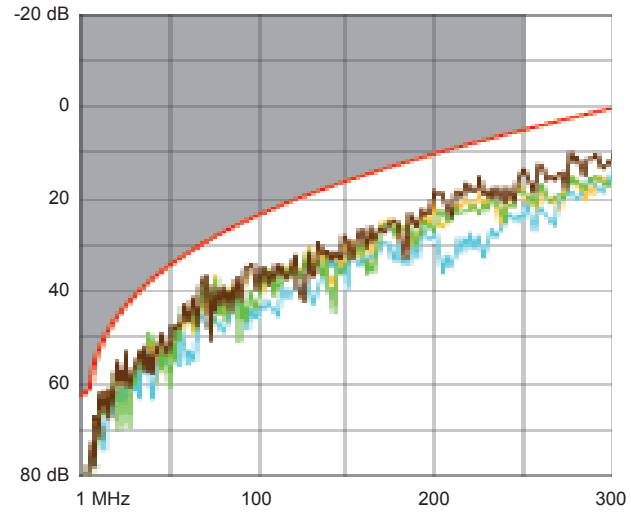
NEXT (Near end Crosstalk Attenuation)




PS NEXT (Power Sum NEXT)



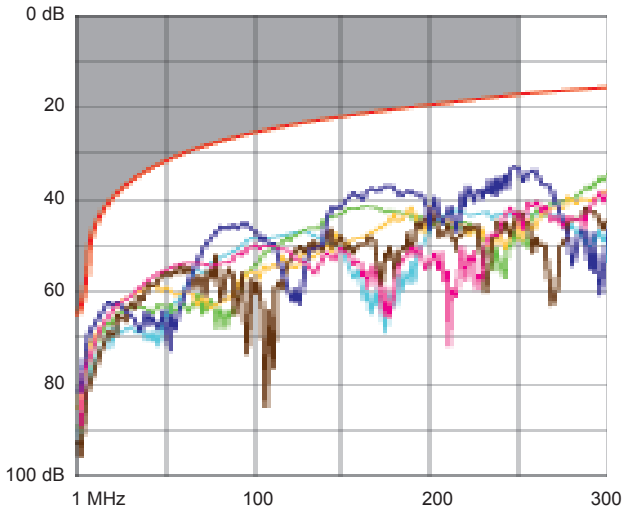

ACR (Attenuation to Crosstalk Ratio)




## 9. PERFORMANCE *(cont.)*

**9.2 Permanent link performance with F/UTP cable** *(cont.)*

ELFEXT (Equal Level End Crosstalk Attenuation)




Delay skew

