



The R&Mfreenet Cat.6 connection modules, part of the Freenet cabling system, are ideal for voice, fast data transmissions and high bandwidth applications. This high performance Cat.6 module is perfect for use in 1 Gigabit Ethernet (1GBASE-T) up to 250MHz and in shielded version up to 10 Gigabit Ethernet for applications up to 500MHz.

Features of Cat.6 Modules

- Exceeds the Cat.6 component specification (for the entire re-embedded plug range as specified by the standards ISO/IEC 11801, EN 50173, TIA 568.2-D, IEC 60603-7-4/5 and 60603-7)
- Exceeding the IEEE 802.3 and minimum requirements for 1GBASE-T performance
- Achieves best transmission characteristics with R&Mfreenet Cat.6 patch cables
- Gold-plated contact area and tin-plated insulation displacement contact area
- Capacitive and inductive compensation
- Compatible with Cat.6 standard patch cords and cables
- Full mechanical and electrical backward compatibility with Cat 5e
- RJ-11 compatible
- Fits into 3rd party outlets and patchpanel using specific adapters
- Tool-free (w/o special tools) connection of installation cables of AWG 22-26 plus stranded cables of AWG 22/7 – 26/7
- Allows connection of cable with larger or smaller AWG with use of the Screw Clip (R35293)
- Wiring option according to TIA 568 A and B with parallel termination of the pairs without splitting of pair 3,6
- Label with color wiring chart, integrated production date for quality tracking
- Halogen-free materials, ROHS II
- 360° shield coverage with shielded module
- Supports PoE (IEEE 802.3af), PoEP (IEEE 802.3at), 4Ppoe (IEEE 802.3bt) and is compatible to IEC 60512-99-001/002
- 3P and UL certified
- Shielded version DNV-GL certified

Standards

IEC 60603-7-4/5
ISO/IEC 11801
EN 50173-1



Technical Data

Criteria	Date / value
Operating temperature range	-10°C to +60°C
Storage temperature range	-40°C to +70°C
Humidity	95% (non-condensing)
Contact material	CuSn
Contact surface	>0,76 µm gold over >1,2 µm nickel
Housing material	Polycarbonate (UL-94-V0) plus CuSn (tin-plated) for shielded version
Number of IDC connections	8 / jack
IDC contact material	CuSn, tin-plated
Admissible wire Ø	0.4 mm (AWG26) – 0.65 mm (AWG22)
Admissible strand Ø	AWG26/7 – AWG22/7
Admissible insulation Ø	0.8 mm – 1.6 mm
Wire strain relief	Through labyrinth in IDC block
Cable strain relief	Through cable tie
Shield contact on plug	2 contact pins for flat-head plug 4.8 x 0.5mm (shielded version only)

IDC Insulation Displacement Contact

Description	Standard value	Relevant Standard	Typical value (at 20°C)
Mating cycles min.	> 750	ISO/IEC 11801	> 1000
IEC 60352-3*	≥ 20		

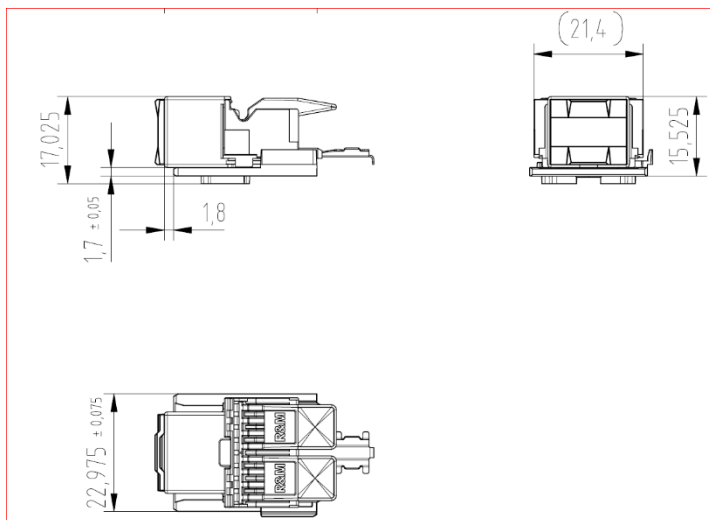
*Re-terminations may be performed with wire of either same or larger size than originally terminated.

Electrical Data

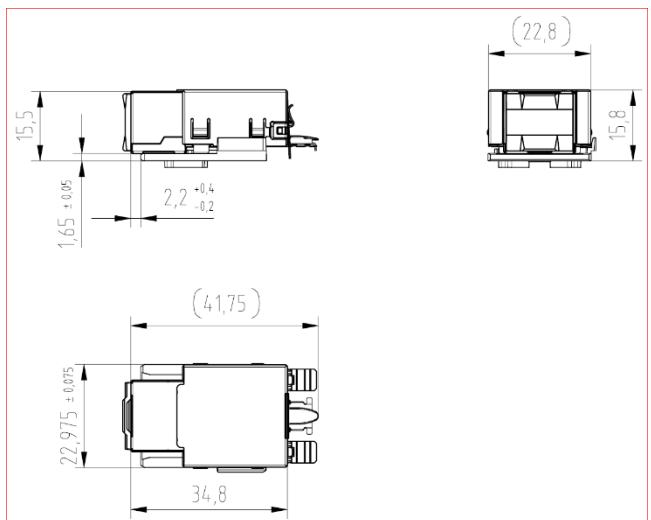
Description	Standard value	Relevant standard	Typical value (at 20°)
Electric strength	1000V DC or AC peak	IEC 60603-7	> 1000V DC
Insulation resistance	> 500MΩ (100V DC)	IEC 60603-7	> 500MΩ (100V DC)
Contact resistance	< 200mΩ	IEC 60603-7	< 50mΩ

Dimensions (Freenet)

Unshielded



Shielded



Available Versions

Freenet, Snap-In, Special, Keystone