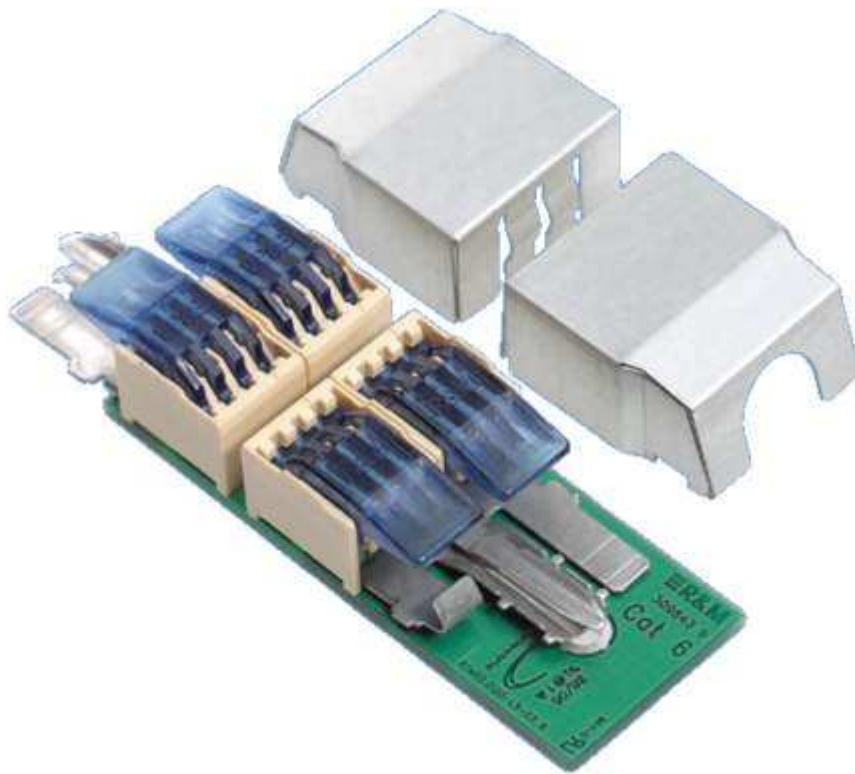


Technical Datasheet



R&M Cable Coupler Cat 6 Shielded

Cable Coupler, Cat 6

The Cable Coupler, from the R&Mfreenet cabling system, is ideal for extending or moving a cable or terminal outlet with a minimum of effort and cost. Other applications include cable sharing or removing a section of damaged cable. The well-known and proven technology ensures smooth and fast termination of the cable – without the need for any special tools. The Cable Coupler can be used for transmission frequencies of up to 250 MHz.

Cable Coupler Features

Exceeds the Cat 6 specification as specified by the standards (ISO/IEC 11801, EN 50173 and TIA/EIA 568B)

Achieves best transmission characteristics with R&Mfreenet Cat 6 cables

Tool-free connection of installation cables of AWG 22-30, plus stranded cables of AWG 24/7 – 26/7

Fast and easy shield termination with patented shield contact and integrated cable strain relief

360° shield coverage

Tin-plated insulation displacement contact area

IDC block labyrinth holds wires securely providing vibration resistance

Fits into R&Mfreenet patch panels which use the R&M mounting plate footprint, e.g. Global Patch Panel, 16-Port Patch Panel, etc., the Compact Box 6x1 port, the DESKbox using the Module Holder, or in applications using the universal module holder

Straight-through wiring

Halogen-free materials

Standards

IEC 60603-7: Electrical Characteristics of the Telecommunication Outlets

IEC 60512-99-001, POE and POE+ compatible

ISO/IEC 11801, Second Edition: September 2002

EN50173-1: May 2007

Mechanical Data

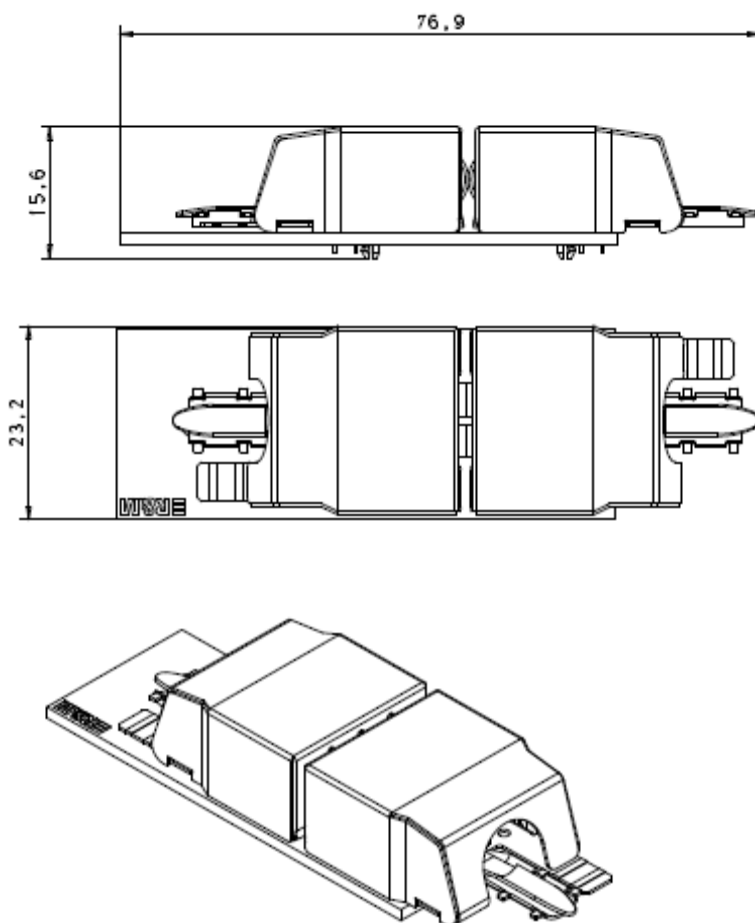
Number of PK94 terminal blocks	4
Number of IDC* connections	4/terminal block, 8/side
Operating temperature range	-10°C to 60°C
Storage temperature range	-40°C to 70°C
Humidity	95% (non-condensing)
Housing material	Polycarbonate (UL-94-V0)
IDC contact material	CuSn, tin-plated
Admissible wire Ø	0.25 mm (AWG30) – 0.65 mm (AWG22)
Admissible strand Ø	AWG26/7 – AWG24/7
Admissible insulation Ø	0.7 mm – 1.5 mm
Wire strain relief	Through labyrinth in IDC block
Cable strain relief	Through cable tie

*IDC: Insulation Displacement Contact

Description	Standard value	Relevant Standard	Typical value (at 20°C)
Insertion cycles installation cables**	> 20	ISO/IEC 11801 2 nd Ed.	> 20

** Wire diameter for subsequent insertions must be the same or larger than previous insertion.

Dimensions



Electrical Data

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

Transfer impedance	EN-51073 value	Typical value (at 20°C)
1 MHz	< 100 mΩ	< 18 mΩ
10 MHz	< 200 mΩ	< 115 mΩ
30 MHz	< 600 mΩ	< 318 mΩ
80 MHz	< 1600 mΩ	< 903 mΩ
100 MHz	< (2000 mΩ)	< 1100 mΩ

Frequency (MHz)	Attenuation (20°C) [dB]	NEXT (20°C) [dB]	Return Loss (20°C) [dB]
1.0	0.03	97.6	37.7
4.0	0.02	86.1	37.9
10.0	0.02	77.8	37.2
16.0	0.02	73.7	36.2
20.0	0.02	71.8	35.6
31.25	0.03	67.9	33.7
62.5	0.04	61.8	29.5
100.0	0.05	57.8	26.3
125.0	0.07	55.9	24.6
155.0	0.08	54.2	22.5
175.0	0.08	53.2	21.4
200.0	0.09	52.2	20.6
250.0	0.13	50.8	19.5

