R&M SafeLine Type C Network Isolator cable

14.12.2021 / V1.0 / RJK



The R&M SafeLine Type C Network Isolator is a high performance Cat. 6A galvanic isolation adapter suitable for medical applications according to the standard IEC 60601-1. It protects medical devices and patients as well as the users of these devices from overvoltage of up to 5kV AC. It allows for data transmissions with frequencies up to 500MHz according to ISO/IEC 11801 Class EA, and TIA/EIA 568 Category 6A.

Features of Cat.6A SafeLine Type C Network Isolator

- Meets the Cat. 6_A and TIA component specification as specified by the standards ISO/IEC 11801, EN 50173, TIA/EIA 568.2-D, IEC 60603-7-41 and 60603-7
- Designed, constructed and verified according to IEC 60601-1
- Achieves 10GB/s data transmission in the channel according to ISO/IEC
 11801 Classe EA as well as EIA/TIA 568.2-D Category 6A.
- Gold-plated contact area and tin-plated insulation displacement contact area on the plug
- Compatible with Cat.6A standard patch cords
- Full mechanical and electrical backward compatibility with category 5e and category 6
- Suitable for devices with a voltage supply of up to 400V AC
- Fits into 3rd party outlets and patchpanel with 4 different adapter
- Halogen-free materials, RoHS II
- UL recognized component
- 100% quality control

Standards

IEC 60601-1	
IEC 60603-7	
ISO/IEC 11801	
TIA/EIA 568.2-D	
EN 50173-1	



General Data

Criteria	Date / value
Color	white
Protection	IP40 (according to EN 60529)
Mean Time To Failure	3240 years @ 25°C / 77°F continuous operation

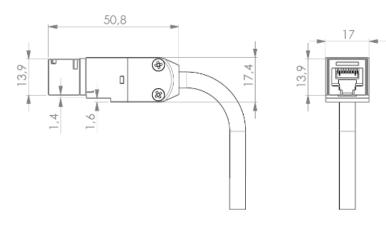
Technical Data

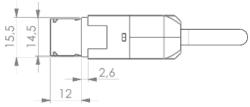
Criteria	Date / value
Operating temperature range	-10°C to +60°C (14°F to 140°F)
Air pressure operation	minimum 700 hPa, maximum 1060 hPa
Storage temperature range	-40°C to +70°C (-40°F to 158°F)
Air pressure storage	minimum 500 hPa, maximum 1060 hPa
Humidity	90% (non-condensing)
Max. allowed operation height	3200 meters / 10498 feet above sea level
Pollution degree	2 (according to IEC 61010)
Cable length	200mm / 7.8in (other lengths on request)
Bending radius	max. 25mm / 0.98in
Mating cycles	min. 750, typical 1000

Electrical Data

Criteria	Date / value
Dielectric strength AC	5kV AC @ 50Hz for 60 seconds
Dielectric strength DC	8.5kV DC for 60 seconds
Overvoltage category	III (according to IEC 60664-1)
Maximum operating voltage AC	400V AC (acc. IEC 60601-1, max. connection voltage of connected devices)
Maximum operating voltage DC	450V DC (acc. IEC 60601-1, max. connection voltage of connected devices)
Coupling capacity channel	15pF ± 25%
Coupling capacity total	60pF ± 25%
Leaking current	12μA typical, maximum 16μA / 275V AC @ 50Hz

Dimensions







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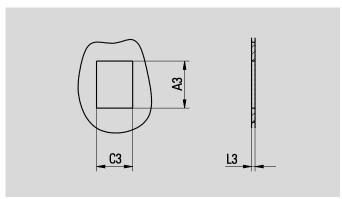
Available Adapters

Freenet, R513484	Keystone IEC, R837033	Adapter No.1, R832197	Snap-In, R316946
	A3: 19.3 – 19.7mm		
	L3: 1.20 – 1.95mm		
	Keystone LARGE 20.3mm,		
	R848274		
	A3: 20.1 – 20.9mm		
	L3: 1.20 – 1.95mm		

IEC Keystone cut-out

The keystone adapter ensures that the module will fit in keystone cut-outs as defined in IEC60603-7 ed. 3 Annex D.

Dimensions IEC Keystone



IEC standard values			Adapter capabilities
Letter	Maximum (mm)	Minimum (mm)	UTP (mm)
А3	19.61	19.30	19.3 - 19.7
C3	15.04	14.78	n.a.
L3	1.54	1.22	1.20 – 1.95



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