

RJ45 C-Bus™ Protection Device



C-Bus™ RJ45 Surge Protection

Novaris C-Bus™ RJ45 surge protection products are specifically designed for the protection of C-Bus™ RJ45 communications wiring.

Communications and Remote Override Protection

The Novaris C-Bus™ RJ45 network protector is designed with primary protection elements of the C-Bus™ network pairs and secondary protection elements to provide protection for the Remote Override pairs.

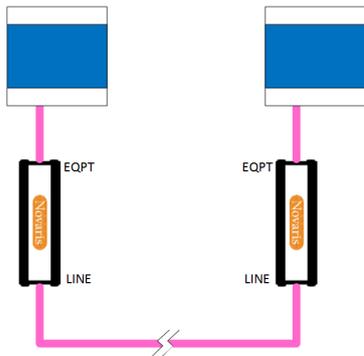
230V Earth Isolation

The Novaris C-Bus™ protector contains integrated 230V isolation to prevent equipment damage during power to earth faults but also provide efficient earth bonding during a surge event.

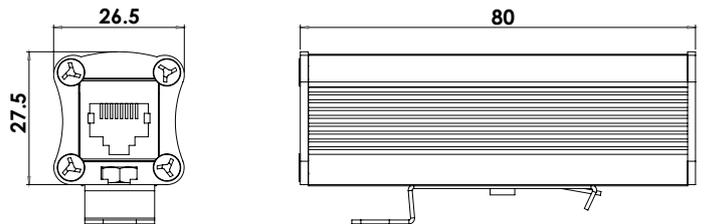
Simple Plug and Play Solution

Simply plugging the Novaris C-Bus™ in line protectors at either end of a C-Bus™ communication network provides excellent protection for your control and management system.

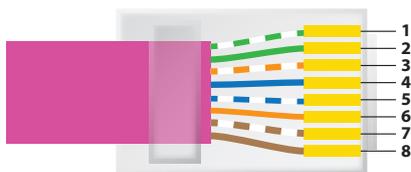
Installation



Dimensions



C-Bus Wiring



Connection	Pin Number
Remote Override On	1
Remote Override On	2
C-Bus Negative (-)	3
C-Bus Positive (+)	4
C-Bus Negative (-)	5
C-Bus Positive (+)	6
Remote Override Off	7
Remote Override Off	8

Note: C-Bus is a registered trademark of Schneider Electric (Australia) Pty Ltd.

Product Specifications

Model	RJ45-1CB	
Electrical Specifications		
Connection Type		Series
No of Lines		1 x RJ45 / 4 pairs & shield
Modes of protection		Transverse and Common Mode
Maximum continuous voltage (DC)	U_c	38 V
Maximum continuous voltage (AC)	U_c	30 V
Maximum discharge current (8/20 μ s)	I_{max}	2 kA per line (4 kA common mode)
Maximum discharge current (10/350 μ s)	I_{imp}	-
Maximum load current	I_L	1000 mA per common pair
L-L Voltage protection level @ 1kV/ μ s	U_p	80 V
L-L Voltage protection level @ 100 V/ s		60 V
L-PE Voltage protection level @ 1kV/ μ s		750 V
L-PE Voltage protection level @ 100 V/ s		650 V
Impulse durability		C2 10 x 1.0kA 8/20
AC durability		1A rms, 5 x 1 s
Overstressed fault mode		Mode 3 (Open Circuit)
Response time	t_A	< 5 ns
Line resistance		0.1 Ω
Line inductance		0.2 μ H
L-L capacitance		10 nF @ 1 MHz
L-PE capacitance		50 pF @ 1 MHz
Insertion loss @ 150 Ω		< 0.5 dB (< 20 kHz)
3dB Frequency @ 150 Ω	f_c	80 kHz
Mechanical Specifications		
Operating temperature		-40 to +70 $^{\circ}$ C
Humidity Range		5 to 95% non-condensing
Terminal capacity		RJ45 Socket
Terminal screw torque		-
Environmental		IP 20
Dimensional Drawing		see Dimensions
Mounting		Inline / TS35 DIN rail
Earthing		Cable / TS35 DIN rail
Enclosure / Colour		Metal / Black
Standards		
IEC 61643-21:2012		SPD connected to telecommunications and signalling networks - Cat C2
AS/NZS 1768:2007		Signalling/Telecommunications surge protection
UL 1449 3 rd edition & UL 497B		Protectors for data communications and fire-alarm circuits
ITU-T K.44: 2012		Resistibility tests for telecommunication equipment exposed to overvoltages and overcurrents
Shipping		
Weight		200g
Customs Tariff		85363000

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