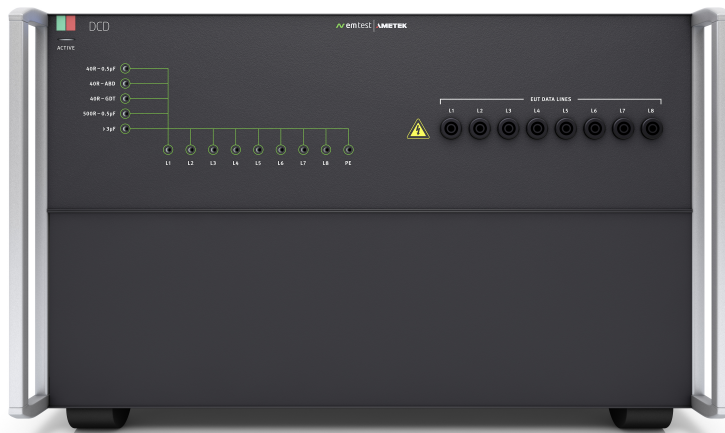


DCD 5-A SR 8-4

COUPLING/DECOUPLING NETWORKS FOR UNSHIELDED UNSYMMETRICAL INTERCONNECTION LINES



FOR TESTS ACCORDING TO ...

- > EN 61000-4-12
- > EN 61000-4-5
- > IEC 61000-4-12
- > IEC 61000-4-5

DCD 5-A SR 8-4 - COUPLING/DECOUPLING NETWORK FOR SIGNAL/DATA LINES

Surge pulses or Ring wave pulses are applied to unshielded unsymmetrical interconnection lines (signal/data lines) by means of standalone coupling/decoupling networks. For such testing AMETEK CTS offers the DCD 5-A sr 8-4 for 8 signal/data lines and automatic / programmable selection of the couple-path. According to IEC/EN 61000-4-5 resp. IEC/EN 61000-4-12 the pulses are coupled via different coupling elements such as capacitors or gas arrestors depending on the characteristics of the data line signals.

HIGHLIGHTS

- > Coupling/decoupling networks according to IEC/EN 61000-4-5 and IEC/EN 61000-4-12
- > Interchangeable AE port protection modules
- > Test voltage up to 5 kV
- > Automatic coupling
- > Line voltage 50 V, 250 V / 4 A
- > Differential mode or Common mode coupling
- > 20 mH decoupling inductor per line

APPLICATION AREAS

-  INDUSTRY
-  MEDICAL
-  RESIDENTIAL

TECHNICAL DETAILS

SURGE APPLICATION

DCD 5-A SR 8-4 - MULTIFUNCTIONAL COUPLING/DECOUPLING NETWORKS

The DCD 5-A sr 8-4 is a multifunctional coupling/decoupling network for the application of Surge and Ringwave pulses onto signal/data lines.

The DCD 5-A sr 8-4 - model combine several different applications; coupling of Surge pulses via capacitor, gas arrester, gas discharge tube or avalanche breaking diode and coupling of Ring wave pulses via capacitor being required by the relevant standards. The required coupling mode can easily be selected.

The DCD 5-A sr 8-4 also has the required decoupling inductors (20 mH) for each line. To protect the measuring system, an interchangeable, pluggable voltage protection module with overvoltage protection for 50 VDC is included in the delivery at the signal/data line inputs on the AE port. Each module protects 4 lines, so that coupling networks with 8 lines require two modules.



COUPLING

MULTIFUNCTIONAL COUPLING FOR SURGE AND RINGWAVE

The DCD 5-A sr 8-4 coupling/decoupling network is a multifunctional CDN for the application of Surge and Ringwave pulses onto signal/data lines.

Surge as per IEC 61000-4-5 Ed.3, Figure 9

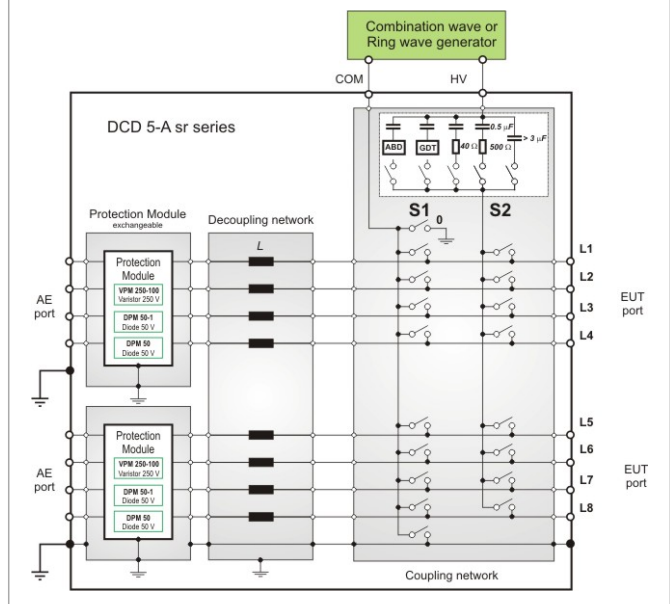
- Capacitor 0.5 µF with 40 Ohm
- GDT gas arrester with 40 Ohm

Additional

- ABD breaking diode with 40 Ohm
- Capacitor 0.5 µF with 500 Ohm

Ringwave as per IEC 61000-4-12 Ed.3, Figure 8

- Capacitor $\geq 3 \mu\text{F}$



TECHNICAL DETAILS

DCD 5-A SR 8-4 FOR 8 UNSHIELDED UNSYMMETRICAL INTERCONNECTION LINES

5 KV MODEL, 8 LINES

DCD 5-A sr 8-4	5 kV coupling/decoupling network max. line current 4 A
Line voltage	Depends on AE protection module max. 50 V / 250 V
General data	
Surge coupling	as per Fig. 9 IEC 61000-4-5 Ed.3, - 0.5 μ F capacitor via 40 Ohm - GDT gas arrestor via 40 Ohm - 0.5 μ F capacitor via 500 Ohm - ABD breaking diode via 40 Ohm
Ringwave coupling	as per Fig. 8 IEC 61000-4-12 Ed.3, - capacitor \geq 3 μ F

AE PROTECTION MODULE

DPM 50-1	2 modules with 4 lines included, the modules can be plugged in manually. Diode Protection Module 50 V, bidirectional diodes, Impedance to GND: 1 kOhm
	Diode Protection Module 50 V, bidirectional diodes, Impedance to GND: 1 kOhm
Line voltage	Vmax: 35 VAC, 50 VDC
Other models	other AE protection, see options

ACCESSORIES FOR 5 KV DCD WITH 8 LINES

AE Protection	2 x DPM 50-1 2 modules with 4 lines
HVS - Banana - Banana	HV cable 1.0 m for connection Generator - DCD 1 x red (HV) 1 x black (COM)
Earth cable Art. 10945	1 x 0.6 m yellow-green 2 x M4 screws with toothed washer

GENERAL

DECOUPLING

Decoupling inductance	20 mH, each line
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ENVIRONMENT

Temperature	10 °C to 40 °C
Humidity	10 % to 80 %, non condensing
Atmospheric pressure	86 kPa (860 mbar) to 106 kPa (1,060 mbar)

TECHNICAL DETAILS

GENERAL

DIMENSION AND WEIGHTS

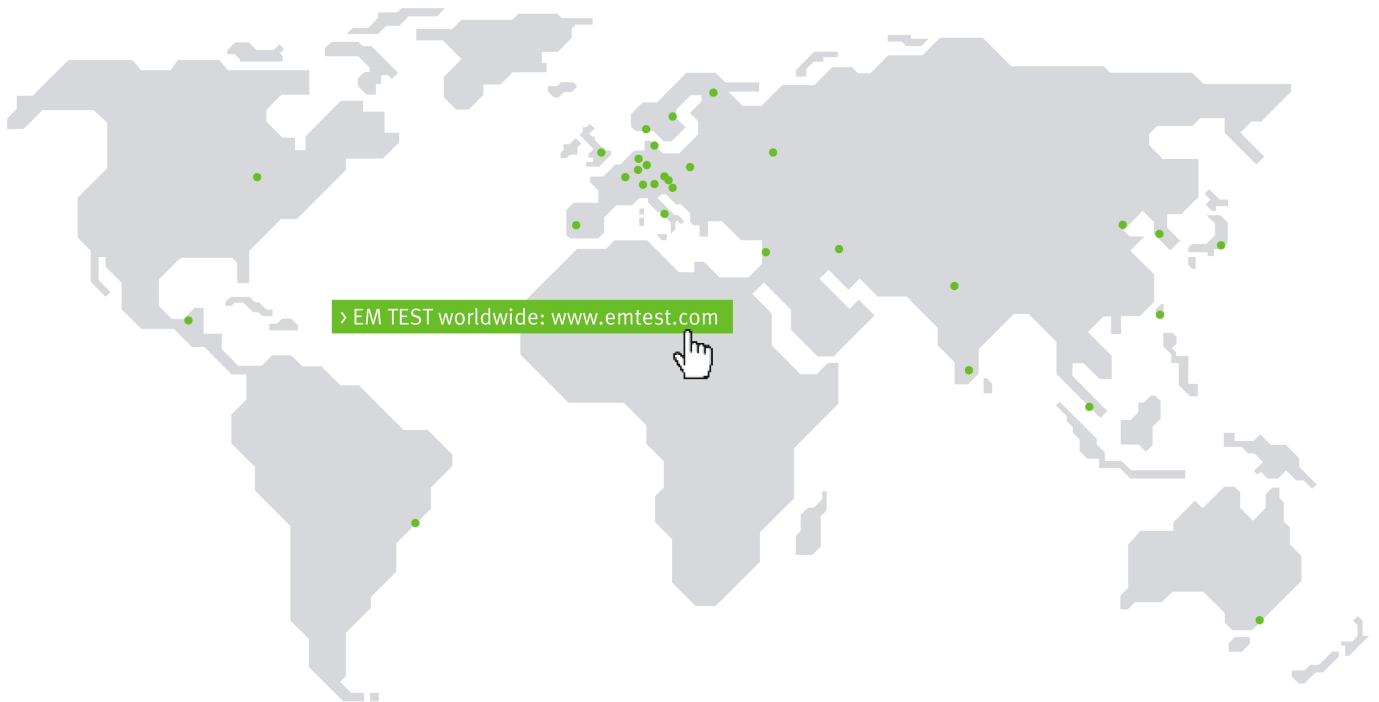
Model	dimension (W x D x H), weight
DCD 5-A sr 8-4	19" 6 HU, 447 x 500 x 286 mm, approx. 20 kg

OTHER DCD MODELS WITH AUTOMATIC COUPLING

DCD 5-A MODELS FOR UNSHIELDED UNSYMMETRICAL INTERCONNECTION LINES

DCD 5-A-b-8-4	5 kV coupling/decoupling network, 8 unshielded unsymmetrical signal lines for EFT / Burst, Automatic coupling, EUT max. 300 VAC / 420 VDC, 4A, limited by AE port protection
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COMPETENCE WHEREVER YOU ARE



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Information about scope of delivery, visual design and technical data correspond with the state of development at time of release. Subject to change without further notice.