



ABN 43 064 478 842

231 Osborne Avenue Clayton South, VIC 3169  
PO Box 1548, Clayton South, VIC 3169  
t 03 9265 7400 f 03 9558 0875  
freecall 1800 680 680  
www.tmgtestequipment.com.au

## Test & Measurement

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## Complimentary Reference Material

This PDF has been made available as a complimentary service for you to assist in evaluating this model for your testing requirements.

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TMG will assist if you are unsure whether this model will suit your requirements.

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# DEC 5

## Decoupling Network for Symmetrical Data and Control Lines

■ The **DEC 5** is used for decoupling auxiliary equipment from an EUT tested with either 1,2/50 $\mu$ s - 8/20 $\mu$ s combination wave impulses or 10/700 $\mu$ s impulses up to 6.6kV peak. It is used to decouple unshielded symmetrical data and signal lines according standards IEC 61000-4-5 Edition 1 and 2 and ITU K.44. Up to 4 wires can be tested simultaneously.

**To obtain maximum flexibility** only decoupling and protection elements are included in the DEC 5. Coupling circuits, which depends on the EUT to be tested, can be placed separately in the test setup.

**Manual coupling selection of the protection elements** for best protection of the auxiliary equipment.

**Default protection elements** are gas arrestors and breakdown avalanche diodes. With such elements the capacitive load to the EUT lines is small. The decoupling elements can be selected easily. It is also possible to test without any protection elements.

The DEC 5 can be used together with the coupling networks PCD 120, PCD 121, PCD 122, PCD 800, PCD 900 and IP6.2. These provide all the coupling elements as required to perform IEC, ANSI and EN testing.

With a 100 year history of innovation, service centers on three continents and a full staff development and support engineers, Haefely is the clear choice for all your transient immunity test needs.



### ■ Features

- ☑ **Inductors 20mH** compensated
- ☑ Combination wave **1,2/50 $\mu$ s - 8/20 $\mu$ s** impulses
- ☑ **10/700 $\mu$ s** telecom impulses
- ☑ Breakdown avalanche **diodes** and gas **arrestors** as protection elements
- ☑ Up to **4 wires** can be tested
- ☑ Signal **Bandwidth up to some 100kHz**

### ■ Benefits

**International application** – Specifically designed to meet and exceed the requirements of:

- IEC / EN 61000-4-5 Edition 1: Figure 12
- IEC / EN 61000-4-5 Edition 2: Figure 14
- IEC / EN 61000-4-12 Edition 2: Figure 12
- ITU K.44: 2003 Figures A.5-1, A.6.1-1 to A.6.1-5

**Safe and Easy** - All the sockets are safety banana plugs to ensure maximum safety to the user. The selected protection element can be seen at a glimpse.

**Sturdy and Reliable** – Careful component selection ensures that the DEC 5 will continue to operate under the most strenuous testing regimen.

**Report Generation** - The unit controller can automatically generate test reports without a computer. Add WinFEAT&R control and reporting software on a host PC to collect and collate data in any format you like.

### ■ Applications

- ☑ Unshielded symmetrical data and signal lines
- ☑ Telecommunication equipment
- ☑ Other international requirements for surge testing symmetrical data- and control lines such as TIA-968-A (FCC part 68) and Telcordia (Bellcore) GR-1089-CORE.

## ■ Technical Specifications

Impulse shapes	1,2/50 $\mu$ s - 8/20 $\mu$ s 10/700 $\mu$ s - 5/320 $\mu$ s	
Impulse amplitude	max. 6.6kV	
Decoupling elements	20mH current compensated	two inductors with two coils each
Voltage on EUT lines	max. 72V <sub>DC</sub> or 50V <sub>AC,RMS</sub> max. 144V <sub>DC</sub> or 100V <sub>AC,RMS</sub>	with gas arrestors as protection elements with ABDs as protection elements
Current on EUT lines	max. 1A	
Signal bandwidth for the EUT signals	up to some 100kHz up to 100kbaud	

Other decoupling elements on request.

## ■ Weight and Dimensions

Weight	approx. 9 kg net	Dimensions	30 x 20 x 16 cm (w x h x d)
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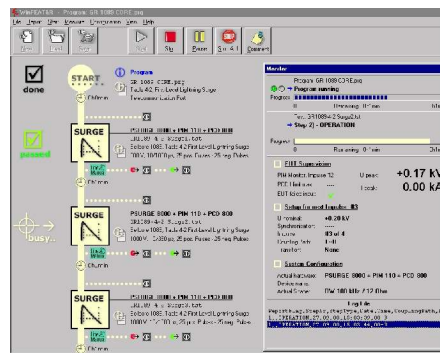
## ■ DEC 5 Art. No. 249014 Scope of Supply

- Qty. 1 DEC 5
- Qty. 1 Cable set
- Qty. 4 Short circuit bridges
- Qty. 1 Users Manual

## ■ Options and Accessories

- PCD 120 Automatic operated coupling unit according ITU K.44 and IEC 61000-4-5 (for 10/700 $\mu$ s only)
- PCD 121 Manual operated coupling unit according IEC 61000-4-5 (for combination wave 1,2/50 $\mu$ s-8/20 $\mu$ s only)
- PCD 122 Manual operated coupling unit according IEC 61000-4-5 and ITU K.44 (for 10/700 $\mu$ s only)
- PCD 800 Automatic operated coupling unit according TIA-968-A (FCC part 68)
- PCD 900 Automatic operated coupling unit according Telcordia (Bellcore) GR-1089-CORE.
- PSURGE 8000 Mainframe of the Surge Platform
- WinFEAT&R Control and reporting software. Runs under windows 98, NT, ME, 2000, XP

## WinFEAT&R Control Window



Headquarters  
**Haefely Test AG**  
 Lehenmattstrasse 353  
 CH-4052, Basel  
 Switzerland

+ 41 61 373 41 11  
 + 41 61 373 45 99  
[EMC-sales@haefely.com](mailto:EMC-sales@haefely.com)

Locate your local  
 sales representative at  
[www.haefelyEMC.com](http://www.haefelyEMC.com)



**HAEFELY** EMC  
 TECHNOLOGY

North American Office  
**Hipotronics Inc.**  
**Haefely EMC Division**  
 1650 Route 22  
 Brewster, NY 10509

++1 845 279 3644 x264  
 ++1 845 279 2467  
[EMCsales@hubbell-haefely.com](mailto:EMCsales@hubbell-haefely.com)