

# CNV 508N4 SERIES

## COUPLING/DECOUPLING NETWORKS FOR 4 PAIRS/8 LINES AS PER IEC 60255-26



### FOR TESTS ACCORDING TO ...

- > IEC 60255-22-1
- > IEC 60255-26

### COUPLING/DECOUPLING NETWORKS FOR TESTING MEASURING RELAYS AND PROTECTION EQUIPMENT

The CNV 508N4 series are special coupling/decoupling networks being used to perform "Electrical disturbance tests for measuring relays and protection equipment" in accordance to IEC 60255-26. A capacitance of 0.5uF is specified to couple the pulses on to the lines.

Each line has a decoupling inductor of >1.5mH to protect the auxiliary equipment from being subjected to the test pulse. The disturbance signal used for this test is a damped oscillatory pulse with a frequency of 1MHz, generated by the EM TEST OCS 500N6 or OCS 500N6F generators.

### HIGHLIGHTS

- > Selection of all coupling modes as per IEC 60255-26
- > Remote controlled by the OCS 500N6 / N6F
- > Coupling capacitor 0.5uF
- > Decoupling inductor >1.5mH per line
- > Nominal line voltage max. 250V AC/DC

### APPLICATION AREAS

-  COMPONENTS
-  INDUSTRY

**TECHNICAL DETAILS**

**BENEFITS**

**FULLY-AUTOMATIC COUPLING NETWORKS FOR IEC 60255-26**

Depending on the configuration of the DUT several different test set-up's are used to perform tests in differential mode (line-to-line of the same pair) or common mode (each pair to ground or one pair to all other pairs with these being grounded). The CNV 508N4 is automatically set by the OCS 500N6 selecting the desired coupling mode and lines to be coupled. The coupler offers capability to test up to 4 pairs/8 lines.

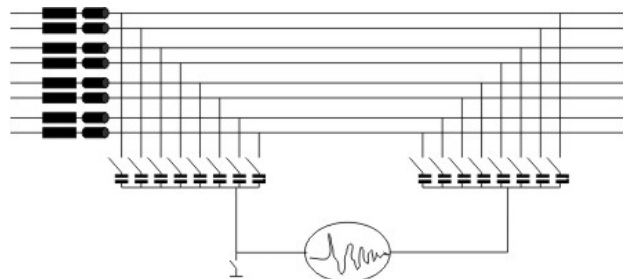
The test of measuring relays and protection equipment as outlined in IEC 60255-26 includes different coupling modes to test the DUT under different conditions. Each pair of lines is tested individually in differential mode. Common mode test is applied to each pair to ground and to each pair with the other pairs connected to ground.

The EM TEST CNV 508N4 series are a dedicated CDNs for these applications, fully automatic, remote controlled by the OCS 500N6 for the various coupling modes. This offers best user convenience and reliability that all couplings required are tested sequentially. The selected coupling mode and lines actually being tested are indicated by LEDs.

**ELECTRICAL DIAGRAM**

**THE COMPLETE SOLUTION**

The CNV 508N4 series includes the required 1.5mH decoupling inductors to decouple the auxiliary equipment as well as the coupling part via a 0.5uF capacitor for each line and the coupling relays to allow all possible settings for differential mode and common mode testing as per IEC 60255-26. The coupling mode and the coupling of the lines are selected and controlled via the OCS 500N6.



**OVERVIEW**

CNV 508N4 MODELS	
CNV 508N4	Coupling/decoupling network with 4A AC/DC per line
CNV 508N4.1	Coupling/decoupling network with 16A AC/DC per line

**TECHNICAL DETAILS**

CNV 508N4	
Nominal voltage	250V AC/DC per line
Nominal current	4A AC/DC per line
Max. test voltage	3kV peak for 1MHz damped oscillatory wave
Source impedance	200 Ohm

CNV 508N4.1	
Nominal voltage	250V AC/DC per line
Nominal current	16A AC/DC per line
Max. test voltage	3kV peak for 1MHz damped oscillatory wave
Source impedance	200 Ohm

## TECHNICAL DETAILS

### COMMON DATA (ALL MODELS)

#### OUTPUTS

DUT connectors	4mm safety lab connectors
Indications	LEDs to indicate selected coupling mode and lines to be tested

#### COUPLING MODES AS PER IEC 60255-26

Differential Mode	Line-to-line within one pair
Common Mode #1	Test between an individual port and all others (ports not coupled are floating)
Common Mode #2	Test between an individual port and all others (ports not coupled are connected to ground via capacitor)

#### GENERAL DATA

Dimensions, Weight	19", 3HU, approx. 10kg (CNV 508N4) approx. 25kg (CNV 508N4.1)
Supply voltage	115/230V +10/-15%, 50/60Hz
Fuses	2 x T2AT (230V) or 2 x T4AT (115V)
CN interface	CN interface, 15pin SubD, for remote control by the OCS 500N6

### RECOMMENDED ACCESSORIES

#### GENERATOR AND OPTIONS FOR IEC 60255-26 TESTING

OCS 500N6 series	Damped Oscillatory Wave generator, 100kHz and 1MHz
OCS 500N6F series	Fast Damped Oscillatory Wave generator with option, S-DOW/N6F, 100kHz and 1MHz
iec.control	Remote control and documentation software

# COMPETENCE WHEREVER YOU ARE



## CONTACT EM TEST DIRECTLY

### Switzerland

AMETEK CTS GmbH > Sternenhofstraße 15 > 4153 Reinach > Switzerland  
 Phone +41 (0)61 204 41 11 > Fax +41 (0)61 204 41 00  
 Internet: [www.ametek-cts.com](http://www.ametek-cts.com) > E-mail: [sales.conducted.cts@ametek.com](mailto:sales.conducted.cts@ametek.com)

### Germany

AMETEK CTS Europe GmbH > Customer Care Center EMEA > Lünener Straße 211  
 > 59174 Kamen > Germany  
 Phone +49 (0) 2307 26070-0 > Fax +49 (0) 2307 17050  
 Internet: [www.ametek-cts.com](http://www.ametek-cts.com) > E-mail: [info.cts.de@ametek.com](mailto:info.cts.de@ametek.com)

### Poland

AMETEK CTS Europe GmbH > Biuro w Polsce > ul. Twarda 44 > 00-831 Warsaw > Poland  
 Phone +48 (0) 518 643 12  
 Internet: [www.ametek-cts.com](http://www.ametek-cts.com) > E-mail: [Infopolska.cts@ametek.com](mailto:Infopolska.cts@ametek.com)

### USA / Canada

AMETEK CTS US > 52 Mayfield Ave > Edison > NJ 08837 > USA  
 Phone +1 732 417 0501  
 Internet: [www.ametek-cts.com](http://www.ametek-cts.com) > E-mail: [usasales.cts@ametek.com](mailto:usasales.cts@ametek.com)

### P.R. China

E & S Test Technology Limited > Rm 913, Leftbank >  
 No. 68 Bei Si Huan Xi Lu > Haidian District > Beijing 100080 > P.R. China  
 Phone +86 (0)10 82 67 60 27 > Fax +86 (0)10 82 67 62 38  
 Internet: [www.emtest.com](http://www.emtest.com) > E-mail: [info@emtest.com.cn](mailto:info@emtest.com.cn)

### Republic of Korea

EM TEST Korea Limited > #405 > WooYeon Plaza > #986-8 > YoungDeok-dong >  
 Giheung-gu > Yongin-si > Gyeonggi-do > Korea  
 Phone +82 (31) 216 8616 > Fax +82 (31) 216 8616  
 Internet: [www.emtest.co.kr](http://www.emtest.co.kr) > E-mail: [sales@emtest.co.kr](mailto:sales@emtest.co.kr)

### Singapore

AMETEK Singapore Pte. Ltd > No. 43 Changi South Avenue 2 > 04-01 Singapore  
 48164  
 Internet: [www.ametek-cts.com](http://www.ametek-cts.com) > E-mail: [singaporesales.cts@ametek.com](mailto:singaporesales.cts@ametek.com)

### Great Britain

AMETEK GB > 5 Ashville Way > Molly Millars Lane > Wokingham > Berkshire  
 RG41 2 PL > Great Britain  
 Phone +44 845 074 0660  
 Internet: [www.ametek-cts.com](http://www.ametek-cts.com)

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.