

CNV 508N4 SERIES

COUPLING/DECOUPLING NETWORKS FOR 4 PAIRS/8 LINES AS PER IEC 60255-22-1



FOR TESTS ACCORDING TO ...

> IEC 60255-22-1

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 60255-22-1. A capacitance of 0.5 μ F 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.

HIGHLIGHTS

- > Selection of all coupling modes as per IEC 60255-22-1
- > Remote controlled by the OCS 500N6
- > Coupling capacitor 0.5 μ F
- > 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 60255-22-1

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.

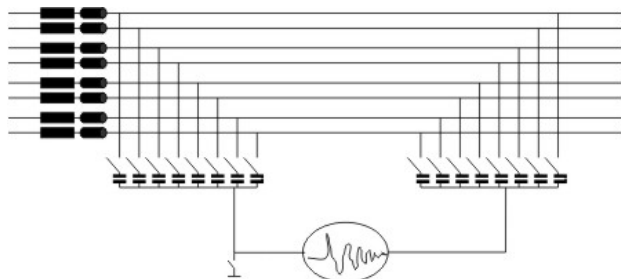
The test of measuring relays and protection equipment as outlined in IEC 60255-22-1 includes different coupling modes to test the DUT under different conditions. Each pair of lines is tested individually in differential mode. Common mode test is applied to each pair to ground and to each pair with the 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 60255-22-1. The coupling mode and the coupling of the lines are selected and controlled via the OCS 500N6.



TECHNICAL DETAILS

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

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 60255-22-1	
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 60255-22-1 TESTING	
OCS 500N6	Damped Oscillatory Wave generator, 100kHz and 1MHz
iec.control	Remote control and documentation software

COMPETENCE WHEREVER YOU ARE



CONTACT EM TEST DIRECTLY

Switzerland

EM TEST (Switzerland) GmbH > Sternenhofstraße 15 > 4153 Reinach > Switzerland
 Phone +41 (0)61/7179191 > Fax +41 (0)61/7179199
 Internet: www.emtest.ch > E-mail: sales.emtest@ametek.com

Germany

EM TEST GmbH > Lünener Straße 211 > 59174 Kamen > Deutschland
 Phone +49 (0)2307/26070-0 > Fax +49 (0)2307/17050
 Internet: www.emtest.com > E-mail: info.emtest@ametek.de

France

EM TEST FRANCE > Le Trident - Parc des Collines > Immeuble B1 - Etage 3 > 36, rue Paul Cézanne > 68200 Mulhouse > France
 Phone +33 (0)389 31 23 50 > Fax +33 (0)389 31 23 55
 Internet: www.emtest.fr > E-mail: info@emtest.fr

Poland

EM TEST Polska > ul. Ogrodowa 31/35, 00-893 Warszawa > Polska
 Phone +48 (0)518 64 35 12
 Internet: www.emtest.com/pl > E-mail: info_polska.emtest@ametek.de

USA / Canada

EM TEST USA > 9250 Brown Deer Road > San Diego > CA 92121
 Phone +1 (858) 699 1685 > Fax +1 (858) 458 0267
 Internet: www.emtest.com > E-mail: sales.emtest@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 > E-mail: 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 > E-mail: sales@emtest.co.kr

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