

# TRANSIENT EMISSION SET

## AUTOMOTIVE TRANSIENT EMISSION MEASUREMENTS AS PER ISO 7637-2



FOR TESTS ACCORDING TO ...

› ISO 7637-2:2011

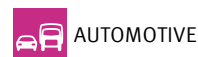
### TEST SET FOR THE MEASUREMENT OF AUTOMOTIVE TRANSIENT EMISSIONS AS PER ISO 7637

The measurement of automotive transient emissions as per ISO 7637 requires an electronic switch, a mechanical switch and an artificial network. (The electronic switch is used to generate slow transients while the mechanical switch, a typical relay used in the vehicle, generates the fast transients. The artificial network represents the typical impedance of the wiring harness). The AN 20100N is designed for ISO 7637, CISPR 25 and CISPR 16 and can be switched accordingly.

#### HIGHLIGHTS

- › **BS 200N100 - Electronic switch, 60V DC/100A:**
- › - Volt.Drop <math>\lt; 1.2V@100A, \lt; 0.2V@25V</math>
- › - Peak voltage max. 1,000V
- › - Reverse-polarity/short-circuit protected
- › **BSM 200N40 - Mechanical switch, 16V DC/40A**
- › **AN 200N100 - ISO 7637, CISPR 25, CISPR 16:**
- › - Frequency range 100kHz - 125MHz
- › - 1,000V DC, 250V AC (up to 1kHz)
- › - Current max. 100A AC/DC cont.

#### APPLICATION AREAS



## TECHNICAL DETAILS

## BS 200N100 - ELECTRONIC SWITCH

## SPECIFICATION

Operation voltage	Max. 60V DC
Operation current	Max. 100A continuous
Peak voltage	Max. 1,000V
Voltage drop	< 1.2V at 100A < 0.2V at 25A
Overtoltage protection	By varistors
Overload protection	Short-circuit protected Reverse-polarity protected

## SWITCH CHARACTERISTICS

Switching time	300ns +/- 20% into test load 50uH/0.6ohm
On/Off time	10ms to 500ms, continuously selectable via potentiometer
Operation mode	Indicated by LED

## TRIGGER

Manual	Manual trigger of a single event
Auto	Automatic trigger with min. 0.1Hz to max. 1Hz repetition, continuously selectable by potentiometer
External	External trigger, negative going edge 0V, BNC input

## MEASUREMENT

Voltage monitor	BNC output; divider 1:200 +/-5%
CRO trigger	BNC output; negative going edge 0V

## GENERAL DATA

Dimensions, weight	90mm x 125mm x 120mm (LxWxH) (without connecting sockets) approx. 1kg
Supply voltage	24V DC via mains supply adapter

## AN 200N100 - ARTIFICIAL NETWORK

## TECHNICAL DATA

as per	ISO 7637, CISPR 25, CISPR 16, switchable
Frequency range	0.1 to 125MHz
Operation voltage	1,000V DC/250V AC up to 1kHz
Operation current	100A AC/DC continuous
Impedance	50ohm // 5uH + 1ohm
Insertion loss	less than 3dB DUT to receiver output
Inductance	5uH +/-10% air-core coil
Coupling capacitor	0.1uF

## MEASUREMENT

Power supply/DUT connection	High-current connectors up to 100A 4mm safety lab connectors up to 32A
Test output	BNC-connection

## GENERAL DATA

Dimensions	318 x 126 x 122 mm (L x W x H) (without connecting sockets)
Weight	approx. 3.5kg

## TECHNICAL DETAILS

## BSM 200N40 - MECHANICAL SWITCH

## SPECIFICATIONS

Operation voltage	Max. 16V DC
Operation current	Max. 40A DC continuous, resistive load
Contact	high purity silver contacts, no suppression across relay contact, insulated from the coil circuit

## TRIGGER

Manual	Manual trigger of a single event
Auto	Automatic trigger with min. 0.1Hz to max. 1Hz repetition, continuously selectable by potentiometer
External	External trigger negative going edge 0V, BNC input
Operation	Indicated by LED

## MEASUREMENT

CRO trigger	BNC output, negative going edge 0V
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## GENERAL DATA

Dimensions, weight	90mm x 105mm x 104mm (LxWxH) (without connecting sockets) approx. 1kg
Supply voltage	24V DC via mains supply adapter

## OPTIONS

CA BS 200N	Calibration load 0.6ohm and 50uH for the verification of the electronic switch characteristic
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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. Technical data subject to change without further notice.