

## CAN-Bus Tester 2

### Features:

- Bus systems:
  - CAN, CANopen, DeviceNet, SAE J1939
- Baud rates (5 kbit/s ... 1 Mbit/s)
- Measuring of the signal conditions:
  - General quality level (0 ... 100 %)
  - Disturbance-free voltage range, rising and falling edges
- Continuous monitoring
  - Bus status, bus traffic load, error frame counter
- User-friendly protocol monitor (CAN, CANopen)
- Online trigger (real-time monitoring of the bus for logical and physical errors)
- Testing of cables (Short-circuits, interruptions, loop resistances, cable length)
- Straightforward application software:
  - Management of measurements (measurement types, measuring points, measuring times)
  - Comprehensive test record, broad variety of export functions



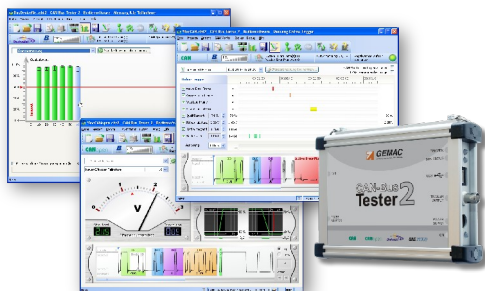
Figure similar

The CAN-Bus Tester 2 constitutes a universal measuring instrument for the commissioning, analysis, monitoring, troubleshooting and service/maintenance of CAN bus plants.

Typical problems which occur during the operation of CAN bus plants, such as node failures, faults in the communication or complete standstill of the plant, often have their origins in the physical bus characteristics. The CAN-Bus Tester 2 provides an overview of the signal conditions on the bus, which helps you locate and rectify frequently occurring error causes without unnecessary delay.

You can already ensure a correct bus cabling and verify its transmission properties when setting up the plant. You can also perform comparing measurements directly on the running plant over its lifetime and thus prevent down-times.

### Fields of Application:



- Commissioning of CAN bus plants
- Wiring test, module check
- Service/maintenance of CAN bus plants
- Troubleshooting and analysis of the bus characteristics
- Development of CAN modules
- Final testing in the production

## Technical Data\*:

| General Parameters and Overview of Functions |   |
|--|---|
| Use (CAN type)                               | CAN (ISO11898-2), CANopen (CiA301), DeviceNet (EN 50325-2), SAE J1939   |
| Baud rates                                   | All baud rates according to the particular CAN type; customized baud rates  |
| Quality level                                | Signal quality level (0 ... 100 %)  |
| Disturbance-free voltage range and edges     | 0 ... 4 V, resolution 50 mV, edge steepness (in 1/64th of the bit width)  |
| Oscilloscope with message frame analysis     | 64-fold sampling per bit, 10,240 sample points, zooming, adjustable trigger position, recording of complete message frames, decoding to used protocol   |
| Bus status                                   | Bus traffic detection (display: dominant, recessive, not defined, bus traffic)  |
| Bus traffic load                             | Permanent display of the bus traffic load (0 ... 100 %),  |
| Protokollmonitor                             | CAN: Reception of CAN message frames incl. filtering,<br>Transmission of CAN message frames and sequences (message lists)<br>CANopen: Interpretation of all CAN messages according to the CANopen spec as<br>SDOs, PDOs, NMT-, Heartbeat-, Emergency-, Sync- and Time stamp<br>(CiA301, CiA302, CiA305, CiA401, CiA402, CiA404, CiA406, CiA408,<br>CiA410, upgradeable) |
| Electrical Parameters                        |   |
| Power supply                                 | Via the supplied wide-range power supply pack (9 ... 36 V DC)   |
| Measuring of the differential voltage        | typ. -0.75 V ... 3.00 V   |
| Measuring of the loop resistances            | typ. 0 Ω ... 800 Ω  |
| Measuring of the cable length                | typ. 0 m ... 500 m  |
| Measuring of the CAN supply voltage          | 0 ... 36 V  |
| Mechanical Parameters                        |   |
| CAN connection                               | 2 x 9-pin D-Sub 9 connectors  |
| PC connection                                | Self-powered device to USB Specification 1.1, electrically isolated   |
| Trigger output for the oscilloscope          | BNC socket, electrically isolated   |
| Housing                                      | Aluminum plate housing, degree of protection: IP20  |
| Temperature range                            | Operation: 5 ... 40 °C, storage: -20 ... 60 °C  |
| Dimensions (Device / Case)                   | 170 mm x 134 mm x 40 mm / 504 mm x 354 mm x 119 mm  |
| Weight (Device / Case)                       | approx. 600 g / approx. 5000 g  |

\* For a complete description of all technical specifications, please refer to the User Manual ([www.gemac-chemnitz.de](http://www.gemac-chemnitz.de)).

## Ordering Information:

| Product                  | Description   | Article Number |
|--------------------------|---|----------------|
| CAN-Bus Tester 2         | CAN-Bus Tester 2, basic version, bus system: CAN          | PR-22517-10    |
| Bus system: CANopen      | License key for bus system CANopen                        | SW-22517-01    |
| Bus system: DeviceNet    | License key for bus system DeviceNet                      | SW-22517-02*   |
| Bus system: SAE J1939    | License key for bus system SAE J1939                      | SW-22517-03    |
| Protocol Monitor CAN     | License key for Protocol Monitor CAN (transmit / receive) | SW-22517-10    |
| Protocol Monitor CANopen | License key for Protocol Monitor CANopen (receive)        | SW-22517-11    |

\* On request