

MECSCAN

Fields of Application

The MECSCAN is a display unit with monochrome digital display which is able to evaluate all data of the CAN protocol and of four analogous individual presentation.

The MECSCAN is developed for a voltage range of 9 – 36 volts and is excellently appropriate for the the consequent modification of the Diesel engines with CAN bus inputs and displays them in an application in:

- Construction machines
- Agricultural vehicles
- Light industrial vehicles
- Special vehicles
- Municipal vehicles
- Stationary engines Stationary and mobile processing machines



Description

The MECSCAN is equipped with an independently programmable dot matrix which controls 128 x 128 pixels. This version is available in monochrome design with background illumination by green LEDs. The CAN protocols can be read and displayed in various types of appearance. The range of display options is from the digital display to quasi analogous display and finally to bargraph presentation. All presentations can be displayed either simultaneously or on different pages. All CAN data can be presented on the display, such as vehicle speed, engine speed, voltage, oil pressure, oil temperature, cooling water temperature, etc. and also four analogous inputs. For this reason, the MECSCAN allows for the simultaneous presentation of more than one information on the display. For example, four quasi analogous information or bargraphs can be presented simultaneously without problems and in good legibility. The programming and the presentation themselves can be set in an easy process by MECS or by the manufacturer of the machines according to customer specifications.

Input Signals

The MECSCAN can evaluate the protocols of the CAN V2.0-Part B (ISO 11898-24 V) and is equipped additionally with four analogous inputs (0 – 10 kor 4 – 20 mA) which can be assigned individually. This allows for the connection of the universal instrument with CAN protocols from all control devices, but also with conventional sensors which can be, e.g. cheap tank and temperature sensors.

Output Signals

The MECSCAN has two individually programmable outputs (max. 700 mA;
Type: open collector, resistant to short circuit), which can be applied as control signals for numerous applications.



MECS CAN

Mechanical System

Rectangular instrument with the installation dimensions: 120 mm x 106 mm, installation depth 73 mm LC Display 128 x 128 pixels, monochrome, green background illumination Display cover "Luran" UL 94 V2, resistant to fracture Plastic housing "Lexan" UL 94 V2, resistant to inflammation 6 individually programmable navigation keys as operator guide.

Weight:	80 g
Protection type:	Front IP 65 Rear IP 50
Temperature range:	-20 °C to +70 °C – operating temperature -30 °C to +80 °C – storage temperature
Buzzer:	Frequency intermittent
Circuit board:	with paint coat against electromigration
Central plug:	„Deutsch“-plug DR15-12PA (12 pins)
Installation:	Front Mounting: 4 plastic brackets with screws (are fixed from behind)

Programming and Configuration

All presentations, displays and evaluations can be carried out by means of a conventional personal computer and a CAN board. The programming surface is offered by MECS in combination with a one-day training and instruction. The manufacturers of the vehicles will thus be enabled to generate customer-specific solutions independently and flexibly. This service can be carried out, of course, also by the MECS personnel. The presentation of the pictograms, bargraphs and analogous displays can be adopted and displayed as simple bitmaps. The programming can be carried out event-controlled on the available programming surface. This means that the definition of warning parameters can initiate the following responses: Individually programmable displays, circuit outputs, loudspeakers, error storage and timer. The warning signals which have been made perceivable in this way can be reset after the quit process by pressing the corresponding function keys. The excellent storage structure allows for the generation of more than 100 display pages.

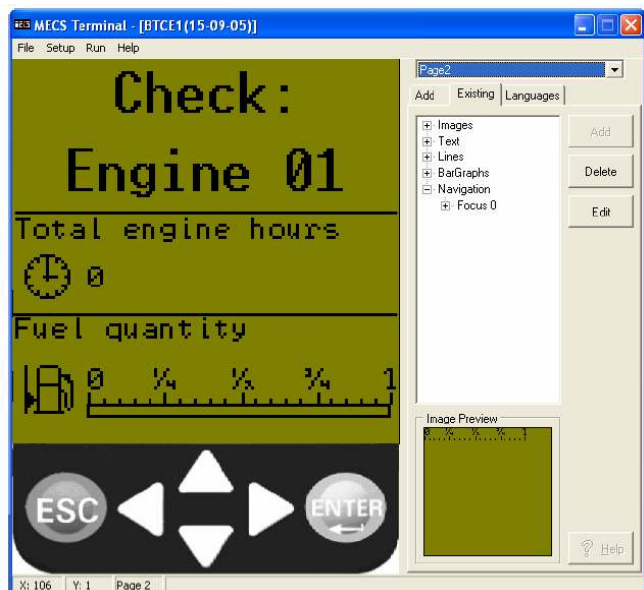
Electrical Specifications

Supply voltage range (Ub):	9 V to 36 V
Current consumption:	240 mA at 12 V 120 mA at 24 V

Terminal connection reliability of the voltage supply connections
Inputs short-circuit resistant against Ub and against other inputs of electrical connections, resistant to excessive voltage (inputs, supply lines, etc.)
CE conformity (mark on the device)

Evidence for the Electromagnetic Compatibility

EN 50081-2
EN 55022
EN 50082-2
EN 61000-4



MECS CAN

Evidence for the operating safety according to the following standards

DIN EN-500-1:	Mobile road construction machine safety Part 1: Common requirements
DIN EN 500-4:	Mobile road construction machine safety
DIN EN 60204-1:	Electrical equipment of machines Part 1: General requirements

Environmental Specifications

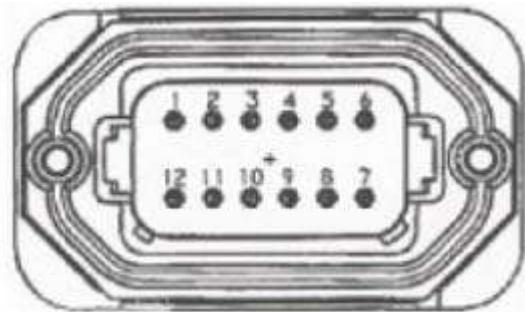
Temperature range:	Storage temperature: -30 to +80 °C Operating temperature: -20 to +70 °C
Shock resistance:	Dropping (in packaging) from a height of 1 m Vibration resistance: 5 g at 30 Hz to 50 Hz (permanent resistance) in all three directions in space
Resistance to climate conditions:	DIN 50016 +23 °C, rel. humidity 83 % +40 °C, rel. humidity 92 %
Resistance to tropic conditions:	DIN EN 60068-2-30 (humid heat)

Resistant to oils, hydraulic oils, grease, fuels, as well as to all standard biological oils and biological fuels. Permanent resistance to deformation, position effects, and aging against high UV radiation.

Graphical Presentations

Plug-in connection

Manufacturer:	Deutsch
Type:	DT15 - PA12
Pin number:	12
Contacts:	Copper with gold coating
Corrosion resistance:	Military standard 1344
Humidity resistance:	DIN 40050 IP6K9K
Current carrying capacity:	7,5 A at 125 °C
Insulation resistance:	1,000 MΩ
Environmental temperature:	-55 °C to +125 °C



Dimensions

