

SPECIFICATION OPUS 46	Art:	Doc
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OPUS 46 Terminal

OPUS46M0CANB0, OPUS46M0COPB0, OPUS46C0CANB0,
OPUS46CVCANB0, OPUS46C0COPB0, OPUS46CVCOPB0

Housing	Plastic moulded housing: Panel mount, dimensions approx. 224 x 134 x 70 mm (excl. connectors), Color NCS 3502 G, Surface structure VDI 3400 Ref 33. Portrait orientated. Antireflective glass window in front of displayback side flange
Ambient Operating temperature	-25 °C ... +65 °C
Storage temperature	-30 °C ... +85 °C
Vibration	10 mm @ 4 - 11 Hz 0,35 mm @ 11 Hz – 50 Hz 5g @ 50 – 300 Hz, 2 h per axis, 100 sweeps
Shock	30g, 11ms, 10 times each axis
Protection	IP 6k5, similar NEMA 4 from all sides
Immunity	RF: Complete unit 100 V/m in Stripeline (Limit IV) (150 mm Stripe Line), 200 V/m (150 mm Stripe Line) electronic system without Display disturbances ESD: air discharge 15kV Conducted Immunity: acc to ISO7637
Radiation	(ISO/EN 14982) 75/322/EWG (only component test without „e“-approval), Limit curve A.5 (broad band) and A.6 (narrow band)
Display	FSTN-monochrome Display transmissive 5,6“, 320 x 240 Pixels with 16 levels of grey, CCFL-Backlight with max. 220 cd/m ² , automatic adaptation to ambient light via sensor. Contrast: typ. 10, user adjustable, viewing angle: +-45° horizontal, -40..+20° vertical, viewing direction 12'clock, max. response time 310 ms, Portrait orientation or TFT - Color Display, 5,6“, 240 x 320 Pixel, 16 colors (ISO+Grund+nd+Transp.), min. 400 cd/m ² , contrast typ. 300, automatic adaptation to ambient light via sensor, Portrait orientation.
Keyboard	11 Keys silicon keypad, Touchable click, Night design with green LEDs, Force>3 N (max. value 20 N)

Processor	16-Bit-Processor C167CR-LM, Speed 20 MHz
Memory	1 MByte Flash for BIOS 4 Mbyte Flash for User Interface Data 1024 kByte SRAM Serial EEPROM 32 kBit
Interfaces	1) CAN bus acc. to ISO 11896 CAN 2.0 B active, EMC-optimized for 250 kBit/s, with 82C251 transceiver, non isolated, short circuit protected against GND and VCC (protection limited to max. +36 VDC @ Supply voltage of +12 VDC) 2) RS-232 serial interface (RXD, TXD only), EIA-level, non isolated, short circuit protected against GND and VCC (protection limited to max. +50 VDC @ Supply voltage of +12 VDC) 3) up to 3 digital inputs for indicators 1 to 5, active high min 8V, Vin low max 3 V, non isolated, short circuit protected against GND and VCC (protection limited to max. +38 VDC @ Supply voltage of +12 VDC)
Real Time Clock	RTC buffered 2 weeks with Gold Cap, average accuracy over temperature range: +/- 30 seconds/month
Power Supply	8 – 50 VDC (nominal 12 VDC), max. 1 A with switched power supply, non isolated. Protected against reverse polarity up to –60 VDC. Electronic system function (without Display) at low power > 8V.

Connectors

Deutsch rectangular connector, DT15-12 with 12 Pins

Pin	Signal
1	Indicator A input
2	Rxd RS 232
3	CAN 1 Hi
4	CAN 1 Lo
5	Txd RS 232
6	RS Ground
7	Indicator B input
8	+ Ignition input (Clamp 15)
9	+ Battery input (Clamp 30)
10	Battery GND
11	Indicator C input
12	Vehicle chassis ground

Operating System

Projector tool-based Operating System for easy design of screen pages of the user interface. Access to CAN-Bus on various supported CAN protocols

Dimensions:
