

OPUS Thor Technical Specifications



HOTLINE Every working day in Germany from **8:00** a.m. to **4:30** p.m. (**CET**)
Telephone **+49 6722 9965-640** or email to **support@wachendorff.de**

IMPLEMENTATION

- Programming** The OPUS Control Units can be programmed with our easy to use "Projektor-Tool". The graphic based programm is © Windows based (NT, 2000, XP) and enabled the integration of own bitmaps and logos. Linking variables to display objects enables dynamical behavior, triggered via CANbus.
- Free Training** A free training in Geisenheim is offered to you. The training lasts a whole day teaching the general principles of the OPUS Control Units and the Projektor-Tool. For further information, training dates or general information ring or email us.

TECHNICAL DATA

- Housing** Cast aluminium housing, powder-coated, Gore-Tex valve for pressure equalisation. tube bracket permits swivel mounting; Dimensions: 280 x 155 x 103,5 mm.
- Display** TFT - Color Display, 5,7", 320 x 240 Pixel, 16 colors, min. 250 cd/m2, contrast type 85:1, automatic adaptation to ambient light via sensor, landscape orientation.
- Keyboard** Membrane keypad with 6 soft keys.
- Encoder** 3 encoder with click, 30 incremental pulses per rev., Dynamic incremental input.
- Processor** 16-Bit-Processor C167CR, Speed 20 MHz.
- Memory** 1 MByte Flash for BIOS, 2 Mbyte Flash for User Interface Data, 1024 kByte SRAM, Serial EEPROM 32kByte.
- Interfaces** 2 x CANbus 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).

Beeper (optional)	Piezo. Output level minimum approx. 75 to 80 dBA in 1 m distance to frontside, beeper frequency: 3,7 kHz.
Real Time Clock	RTC buffered 2 weeks with Gold Cap.
Optional Video Input (color units only)	Video input acc. to CCITT Color coding models: PAL 50 Hz, Video input level: 1 Vpp @ 75 Ohms.
Power Supply	8 –36 VDC max. 2 A via switching regulator, non isolated. Protected against reverse polarity.
Temperatures	Operating temperature –25°C to +65°C.
Vibration	5g @ 57 – 300 Hz, 24 h per axis acc. to IEC 60068-2-6:1995.
Shock	30g, 11ms , 10 times each axis: acc. to IEC 60068-2-27:1987.
Protection	IP 6k5, DIN 40050 Part 9.
Immunity	Immunity acc. to Directive 204/104 EEC (200V/m stripline) for electrical/electronic subassemblies, Conducted Susceptability against disturbance by conduction an coupling acc. to ISO 7637-2 and ISO 7637-3, Immunity against ESD ±15KV air-discharge and ±8KV contact-discharge acc. to EN 61000-4-2. Without “e-mark”.
Emission	Radiation acc. to Directive 204/104 EEC for electrical/electronic subassemblies.
Projekting	Wachendorff ”Projektor-Tool” for ® Windows NT/2000/XP. ® Windows is a registered trademark of Microsoft Corporation in the United States and other countries.