



OBSERVATOR
instruments

OMC-140 Multifunctional TFT Display

Wherever you need to visualize your critical measurement information on a dedicated instrument the OMC-140 can be applied. Whether it is presenting wind information (wind speed and –direction, gust and variation, true or relative) or indication of other meteorological parameters, such like temperature, humidity, barometric pressure, visibility and cloud base, the OMC-140 is the ideal instrument. Because of the multifunctional character of the OMC-140, the unit may also be supplied for other purposes, such like GPS and Gyro display, inclination indicator, etc.

On a 8.5" (long-life; low powered) LED backlight, industrial grade, LCD screen your data will be indicated with a true viewing angel of 170°.

Due to its modular design, the OMC-140 may also act as an intelligent signal converter (see I/O within the specifications). Further the unit is provided with a memory card slot, in case the OMC-140 should act as a basic data logger as well. The unit is also provided with a LAN interface in order to have your information available within your network.

Features

- 8,5" Super Wide Viewing Angle 170° LCD with long life and low power LED backlight
- Touch screen display
- Power supply between 90 and 250 Vac
- DC version (18..32 Vdc) to be ordered as OMC-140-24
- 2 RS422 NMEA inputs, status LED available
- 2 pcs power supply for connected sensors, status LED available
- 1 pce NMEA output, status LED available
- Alarm handling, high and high-high, audible and visible, acceptance possible
- Three option slots available for additional I/O and functionality
- Memory card facility, logger functionality (MESCAQ requirement)
- RJ45 LAN connection
- Suitable for 144x144 instrument replacement (portrait or landscape)
- DNV-GL Type approval certificate: TAA00001B5



Touch Screen Display



Setting page



OMC-140 Reinvention of indication

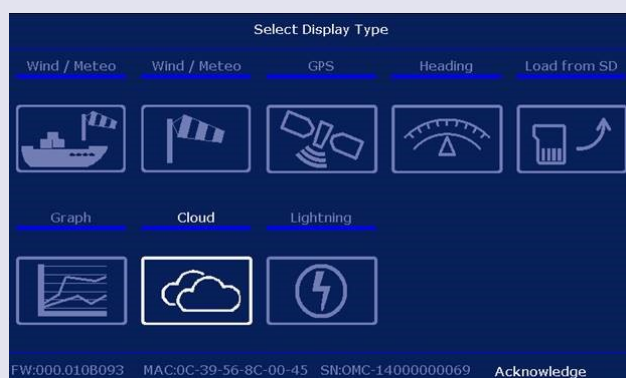
General

After market introductions of good TFT displays a new era was opened for manufacturers of indicators. Not limited to dimensions, colors and intensity of LEDs, or limitations of mechanical pointers a wide variety of indication possibilities became available. Adding a touch screen into the design, Observator was able to develop a single successor of her current display-line.

The OMC-140 was primarily developed as wind & meteorological display. As such a display, the OMC-140 is the culmination of years of technology advances and invaluable customer feedback. From a single relative wind indicator up to a true and relative wind indicator with advanced alarm capability and a possibility of data storage. From a meteorological display for wind, temperature, humidity, dew-point and QFE/QNH indication up to graphical visibility and cloud base display, indication beyond imagination!

Software version 1.0

As the OMC-140 is bridging the gap between dedicated displays and PC-read outs, lots of applications and set-ups belong to the possibilities. A couple of them are being studied upon at this moment and sure after the market release of this (true) Multifunctional TFT display more requests will follow. However it was decided to put the OMC-140 to market with this first software version.



Start screen after FIRST power up

While powering up the OMC-140 for the first time, the user may now select: shipborne wind/meteo; land based meteo; GPS; Gyro or copy display and settings from SD card. Pre-set configurations will be available on the SD card, while during exchange system and user settings and VER info like connected sensors and run times will still be available.

Later software version will have more start-up icons. Updates will be published on the Observator web site(s).

Total flexibility

After selection on the type of the display the user is free to define his/her own display. Dependent on which parameters are offered to the OMC-140 within the selection 'front' a user defined display may be created. Obviously this possibility is password protected.

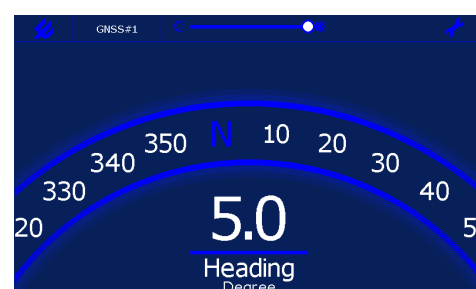


Ships position may be changed (depending on where the display is installed) by tapping the wind rose, within the 'Front setting'

Resulting in following possibilities:



GPS display



Heading display

OMC-140 General Specifications

The Option modules

In order to create a true multi-functional display the OMC-140 is provided with three option slots, for which a variety of option modules are/will be available.



Available(*) and soon to be released modules:

OMC-140-01 12..24 Vdc (back-up) power supply option module (*)

This unit is only required in case the unit is powered by means of AC power and should auto switch to DC in case of emergency power

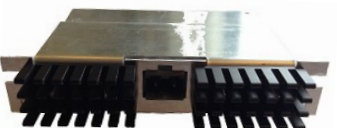
OMC-140-02 Remote control (including panel) & relay output module (*)

OMC-140-03 RS422 output module (3 pcs)

For multiple NMEA messages **MeteoLink** can be used.



OMC-140-02
Remote control & relay output module
OMC-140-02-P
(right) Remote control panel.



OMC-140-01 12..24 Vdc power supply module

INPUTS/OUTPUTS

- 2 NMEA0183 inputs
 - 1 NMEA0183 output
 - Micro USB (programming purposes)
 - RJ45 LAN connector (Q4-2016)
- More I/O possible through the option boards

TFT TOUCH SCREEN

- 8,5" Super Wide Viewing Angle 170° LCD with long life and low power LED backlight
- Active display area 184.8 x 110.9 mm
- Resolution WVGA 800x480

ELECTRICAL

- 100..240 Vac, 50/60 Hz, max 50 VA
- DC version (18..32 Vdc) to be ordered as OMC-140-24
- Sensor 1 and 2 power output 15..16.5 Vdc max 1.5 W
- Connections, pluggable screw terminals for max 2.5 mm²

ENVIRONMENTAL SPECIFICATIONS

- Operating temperature -15°C..+55°C
- Storage temperature -30°C..+80°C
- Humidity 10..93 %RH
- Vibration IEC 60068-2-6 test Fc
- EMC IEC 60945; IEC 61326-1
- IP rating IP22

DIMMING POSSIBILITIES

- From 0,5..700 cd/m2
- Day and night pallet selectable
- Manual by means of 'slider bar'
- Automatic by means of ambient light sensor
- Central by means of NMEA DDC input

DIMENSIONS (see drawings on following page)

- Packing 30 x 30 x 40 cm
- Weight 1.2 kgs (excl packing)
- Weight 3 kgs (incl packing, CD & mounting materials)

ALARMS

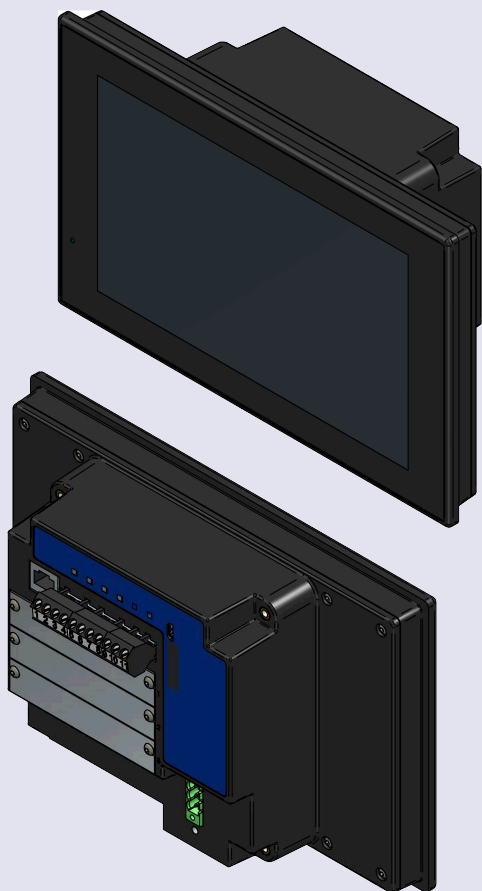
- Build-in alarms on parameters and system functioning
- Outputs, potential free relay outputs through OMC-140-2

IN ACCORDANCE WITH

- DNV Standard for Certification No. 2.4; Type approval certificate: TAA00001B5
- EMC Directive 2014/30/EU
- LV Directive 2014/35/EU
- RoHS Directive 2011/65/EU
- EMC: ESD IEC 61000-4-2; Radiated Immunity IEC 61000-4-3; Conducted Immunity IEC 61000-4-6; Fast Transients IEC 61000-4-4; Surge IEC 61000-4-5
- Electrical safety: IEC 61010:2010
- NMEA 0183 version 4.10 / IEC 61162-1:2010
- IEC 62288:2008 Draft IEC 62288:2012
- All relevant IMO resolutions
- WMO / ICAO / CAP

OMC-140

Dimensions and options



Other available options:

- OMC-140-20 Bracket for wall/ceiling mounting
- OMC-140-21 Spacer for 144x144 cut-out (retrofit)
- OMC-140-22 Cable relief clamps
- OMC-140-50 Mini USB cable (programming purposes)
- OMC-140-51 Interconnection display bus cable
- OMC-140-99 Cleaning kit

The unit is standard supplied as AC-version (90..250 Vdc).
A DC unit (18..32 Vdc) should be ordered as OMC-140-24

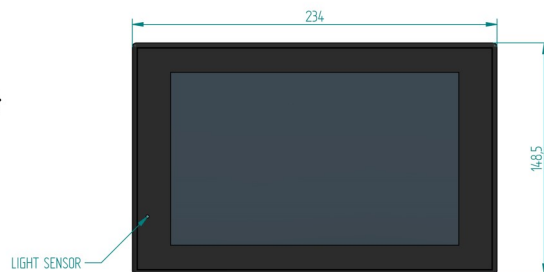
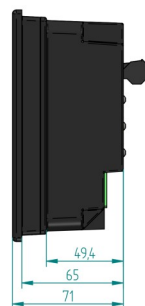
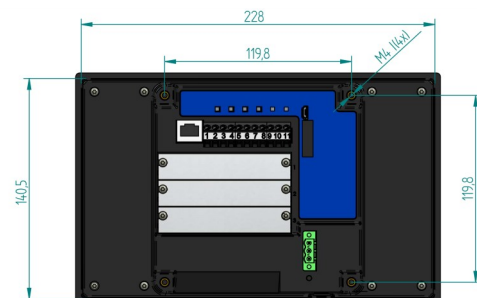
OEM layout upon request

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Spacer advised to be used in case of retrofitting a 144x144

