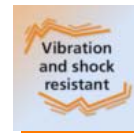


# XL dialogue module PDM360 NG-12 for mobile machines



12.1" TFT display with 1024 x 768 pixels and optional touch screen

- TFT display with "optical bonding" enables optimum readability
- Backlit function keys and navigation keys with tactile feedback
- Internal mass storage, USB interface, interfaces for analogue cameras
- 4 CAN interfaces with CANopen and SAE J1939 protocol
- Programmable to IEC 61131-3 with CODESYS



## PDM360 NG-12 dialogue module

In almost all mobile machines, there is an increasing demand for large powerful process and dialogue modules for operation and visualisation. With its high-resolution graphic display, the powerful 32-bit controller and the flexible programming according to IEC 61131-3, the PDM360 NG-12 is such a user interface.

State-of-the-art display technology with optical bonding and the optional resistive touch function enable readability even under adverse conditions. Thanks to the robust housing with IP 65 / IP 67 protection, the device can be used inside or outside the cabin, for surface or panel mounting.

The CAN interfaces, Ethernet, USB and the video inputs serve for networking and communication with other vehicle components.



### Functions and advantages

#### • High-resolution display

Protected by a scratch-resistant glass pane, the modern display, which can even be read in sunlight, provides a resolution of 1024 x 768 pixels with an aspect ratio of 4:3. The modern "optical bonding" technology eliminates the clearance between front glass and display and so prevents condensation under adverse operating conditions.

In addition, it improves readability of the display under different viewing angles.

#### • Mechanical design

The PDM360 NG-12 has an extremely flat and fully sealed diecast aluminium housing with IP 65 / IP 67 protection and integrated M12 connectors.

It can be used as surface mount devices using the tried-and-tested RAM<sup>®</sup> mount system or can be mounted in a wall. The service lid on the back allows the exchange of the battery for the real-time clock as well as access to the USB 2.0 service interface.

#### • Powerful electronics

The integrated 32-bit controller and the operating system Embedded Linux are the basis for the visualisation of the high-resolution graphics, the processing of the application program and the unit functions. Furthermore, it provides many opportunities with regard to communication and networking with other systems and networks.

#### • Programming according to IEC 61131-3

The CoDeSys software enables a clear and easy creation of the application software for the user. Function libraries are available for the special functions of the device.

#### • Communication interfaces

The PDM360 NG-12 is equipped with four CAN interfaces to ISO 11898. Among others, they support CANopen and the J1939 protocol.

The integrated USB 2.0 interfaces provide easy data exchange with modern storage media.

The Ethernet interface cannot only be used for programming but also for communication with other network participants.

Two inputs for analogue cameras are available in each module for monitoring of the environment.

#### Applications:

**Complex construction machines, agricultural machines, municipal vehicles, vehicles and systems for mining**

### The products

| Description  | Order no. |
|--|-----------|
| PDM360 NG-12 with navigation keys, special function key, 12 function keys and video inputs               | CR1200    |
| PDM360 NG-12 touch display with navigation keys, special function key, 12 function keys and video inputs | CR1201    |
| USB adapter cable, M12 plug / RJ45 socket, 1.5 m   | EC2099    |
| Ethernet, cross-over patch cable, 2 m, PVC cable, M12 plug / RJ45 plug                                   | E11898    |
| Programming software CoDeSys, German version   | CP9006    |
| Programming software CoDeSys, English version  | CP9008    |

### Technical data

| PDM360 NG-12                                    |  |
|---|--|
| Housing   | closed, diecast aluminium                        |
| Device connection                               | M12 connector                                    |
| Protection                                      | IP 67, IP 65                                     |
| Operating voltage [V DC]                        | 10...32  |
| Current consumption [mA]                        | ≤ 800  |
| Temperature range                               | Operation [°C]<br>Storage [°C]                   |
|   | -30...65<br>-30...80                             |
| 12.1" TFT LCD colour display<br>Optical Bonding | 1024 x 768 pixels<br>18-bit colour depth         |
| Touch screen (only CR1201)                      | 5-wire, resistive                                |
| Indications                                     | RGB LED  |
| Processor                                       | MPC5121 / PPC,<br>400 MHz                        |
| Data memory Flash / RAM [MB]                    | 128 / 256  |
| Internal mass storage [GB]                      | 1  |
| Data memory (retain) [kB]                       | 32   |
| <b>Backlit operating elements</b>               |  |
| Function keys                                   | 12   |
| Special function key                            | 1  |
| Navigation keys                                 | 1  |
| Inputs  | 1 x digital / analogue                           |
| Outputs   | 1 x digital, 1 x buzzer                          |
| Interfaces                                      | 4 x CAN<br>1 x Ethernet 100 Mbits<br>2 x USB 2.0 |
| Camera interfaces                               | 2 x video input for analogue camera              |
| Supported CAN protocols                         | CANopen (DS 301 V4)<br>SAE J 1939                |
| Programming software                            | CODESYS  |
| Standards and tests (extract)                   | CE,<br>E1 (UN-ECE R10),<br>EN 50 155             |