

CAN Newsletter Online

OPERATING PANEL SERIES

For commercial and special vehicles

At the Interschutz exhibition, Miunske presented its Pilot operating panel series available with display. Control via CANopen and CANFreestyle (proprietary protocol from Topcon) is possible. GSF Sonderfahrzeugbau was cooperation partner in the development project.



GSF Sonderfahrzeugbau, received a customized version of the operating panel series individually from Miunske (Source: Adobe Stock + Miunske)

The Pilot HMI-system solution is suitable for commercial vehicle electronics. The tailored operating concept is realized by different variants based of a modular system. Equipped with a CAN interface and depending on design variant also with display – it is able to transmit an unlimited number of very specific warning and operating instructions, explained the company.

As well as a pilot in a plane checks all parameters and sends them to the tower, like this the pilot operating panel permanently monitors all status in a vehicle and sends the information to the driver. At the same time, it receives concrete instructions and executes them like a pilot follows instructions of the tower. The basic unit for describing the width of the operating device is specified in segments. One segment corresponds to 18 mm width. Different functional elements need a various number of segments:

- Two operating elements fit into one segment
- One XL-operating element requires the width of two segments
- One display requires the width of four segments
- The left and the right side of the frame requires together exact one segment width

Regular variants

The company said, that the control panel combines the advantages of a display application, key control, and CAN communication. The eight regular models consist of different combinations of operating elements in regular size and extra-large (XL) size, to which four or six bargraph-LEDs per element can be assigned. Also, there are variants with integrated display, optionally as monochrome OLED or graphic compatible TFT-color display.



The system was presented at the Interschutz exhibition for the first time (Source: Miunske)



The OLED display (left) and TFT display (right) variants next to each other (Source: Miunske)

Users can choose between two display variants depending on the requirement profile for the operating panel. The 2,4-inch dotmatrix monochrome OLED display is for showing numerical parameters and pictograms. It comes with a high contrast according to the company and features a resolution of 128 pixels x 64 pixels. The second option is a color TFT display for showing graphics and images. The 2,4-inch LCD display features a resolution of 320 pixels x 240 pixels. The displays are programmable with unlimited number of warning signals and operating instructions, said the company. Free placement of display information via CAN data frames is possible.

Each control and operating element can additionally be complemented by barograph indicators. Regular size operating keys have four and the XL operating keys have six unicolor LEDs. Furthermore, there are four status LEDs (RGB) on each side of the Pilot operating device for additional signal messages. Miunskes developer team can also design an individual pilot version for the costumers needs.

The regular version of the operating panel has a black aluminum frame. The front consists of an abrasion-resistant and detergent-resistant polyester foil, which can be lasered and printed to meet specific applications. Individual designs are possible. Due to the design in DIN slot format, the Pilot 9.7 D and 9.18 operating devices can be integrated into the vehicle. The IP65 rating offers protection against dust and water jets, making all operating panels suitable for outdoor applications.

Use case in ambulances by GSF Sonderfahrzeugbau

According to the GSF development team, the operation of ambulances in the hectic working day had to be made easier and safer by an operating unit with integrated display. Miunske explained: During a customer visit of the Miunske field service and development manager at GSF Sonderfahrzeugbau, an exchange took place regarding the above-mentioned needs of GSF and the current development status of a new control panel series by Miunske.

As a result, GSF became a cooperation partner in the development project „Pilot operating panel“ and thus received a customized version (C-sample) of the operating panel series. Miunske continued explaining: This convinced by its equipment with a display, whereby safety instructions such as „door side entry open“ or „undervoltage vehicle battery“ can now be issued more concretely and clearly as a text message. On the integrated OLED display, the warning and safety messages are shown in high contrast without dazzling, said the company.

Each control panel of the Pilot control unit can be parameterized as a switching or display element with the corresponding transmit and receive functions of the CAN communication. This means that the function, color, and brightness can be configured individually for each control panel. More than 200 control units could already be delivered to GSF Sonderfahrzeugbau as a plug-and-play solution.

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