Sheet

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Terminal 4.3”

Operator panel for vehicles with operational functions or operational means

Terminal 4.3 inches is an operator panel for man-machine interfacing (HMI: Human Machine Interface), dedicated to vehicles with operational functions or operational means. A 4.3 inches color graphic display, usable or not in touch-screen mode, allows to visualize any kind of static and dynamic graphical structures which are programmable. A set of pre-developed graphical functions easily allows the realization of circular instruments and bar-graphes for the representation of variable greatnesses, as well as it is possible to visualize icons, symbols and static or dynamic text structures for the representation of states or alarms or values. Compared to a normal video terminal it offers much more as it integrates resources which are essential on board of a vehicle, for the management of a distributed intelligence system on CAN-Bus line. It can handle direct inputs, both digital and analogical, which are suitable to read contact states, continuously variable manipulators, sensors and other. It can handle power and signaling outputs, to drive local devices (relays, selenoid valves and so on) and warning lights. It is equipped with a 8 x 8 matrix of inputs for the management of alphanumeric keybords and keypads. Two additional optional modules are available: Bluetooth interface for file and information exchange with any kind of external device and Gps interface for geolocalization of the unit and vehicle on which it is installed.



Terminal 4.3”

- 4.3 inches color graphic display.
- Touch-screen mode usable or not.
- Power digital outputs protected against over current, over temperature and short circuit.
- Unit with integrated resources for direct management of inputs and outputs.
- CAN-Bus interface (proprietary protocol / SAE J1939).
- 8 x 8 matrix of inputs for the management of alphanumeric keybords and keypads.
- Two additional optional modules: Bluetooth and Gps.

Working conditions

Operational supply voltage:	**+6V - +36V**
Operational absorption:	**< 1A**
Working temperature:	**-20°C - +60°C**
Maximum working temperature:	**-40°C - +105°C**

Inputs and outputs

Digital ratiometric inputs on/off:	**8**
Analogical inputs 10 bit resolution:	**4**
Inputs with 8x8 matrix for push-buttons: (8 on front push-buttons included)	**64**
Power digital outputs 5A max:	**4**
Power digital outputs 1A max: (shared with INPT3 ratiometric input)	**1**
Signaling digital outputs 0,25A max: (open collector)	**8**

Communication door and optional modules

Communication door:	**USB**
Speed:	**115.2 Kbit/sec**.
Gps module:	**Based on SiRF star IV™ core** **Frequency band: GPS L1,C/A Code** **Standard: NMEA and OSP** **Gps architecture with 48 channels** **Positional accuracy (CEP50): Autonomous** **Positional error < 2.5m** **Accuracy: Speed: < 0.01 m/s Heading:< 0.01 deg** **Time to first fix (90% @ -130dBm): Hot Start: 1s Cold Start: < 35s**
Bluetooth module:	**Bluetooth v.2.1 + EDR** **Bluetooth radio class 2** **Transmission power: +3 dBm** **Receiver sensitivity: -86 dBm** **Range: 30 meters line-of-sight** **Integrated antenna chip**

CAN-Bus

CAN-Bus channel:	**FULL CAN 2.0 A e B**
Protocol standard:	**SAE J1939**
Maximum speed:	**500 Kbit/sec.**

Processing

Microprocessor:	**16 bit**
Operational rate:	**56 MHz**
Flash memory program:	**256 + 32 Kbytes**
SD images micro memory:	**2 Gbytes**

RTC Calendar/Time with lithium backup battery

Display

4.3” TFT graphic display: **800x480 65535 colours**
Operational temperature range: **-20°C - +60°C**
Integrated resistive touch-screen

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