

## Accessories on CANopen interface

### Buttons PLC/Securities on CANopen interface.

The panel can house 9 machine commands with diameter of 22mm, emergency button and 2 potentiometers. It can be configured in function of the application itself. The front panel has degree of protection of IP65.

The Machine commands are on are on CANopen interface with profile DS-401. This unit is a CANopen node with address range 1÷63. The addressing can be made via Hardware, that is Rotary Switch, or via software by means of profile DSP-305.

For CANopen draft implementations see “CANopen Specifications”.



The option code of panel is OPPLMUCANO. The buttons kit is not included because the kit must be chosen by customer. The labels and symbols can be changed in accord to the needs.

## Handled dashboard (Pilot)



### Technical Characteristics

- Working temperature 0° ÷ 50°C
- Relative humidity 10% ÷ 95%
- Degree of Protection IP54

The OPPILOTxx option is an handheld dashboard that allows a very comfortable operator interface for a typology of base functions such as :

- Machine equipment, for example loading/unloading of tool warehouse, tool preset, origins saving, piece stirrup.
- Machining in manual mode
- Measure, such as acquiring of heights in specifics points of the piece, etc...

The communication between handheld and machine is based on CANopen protocol.

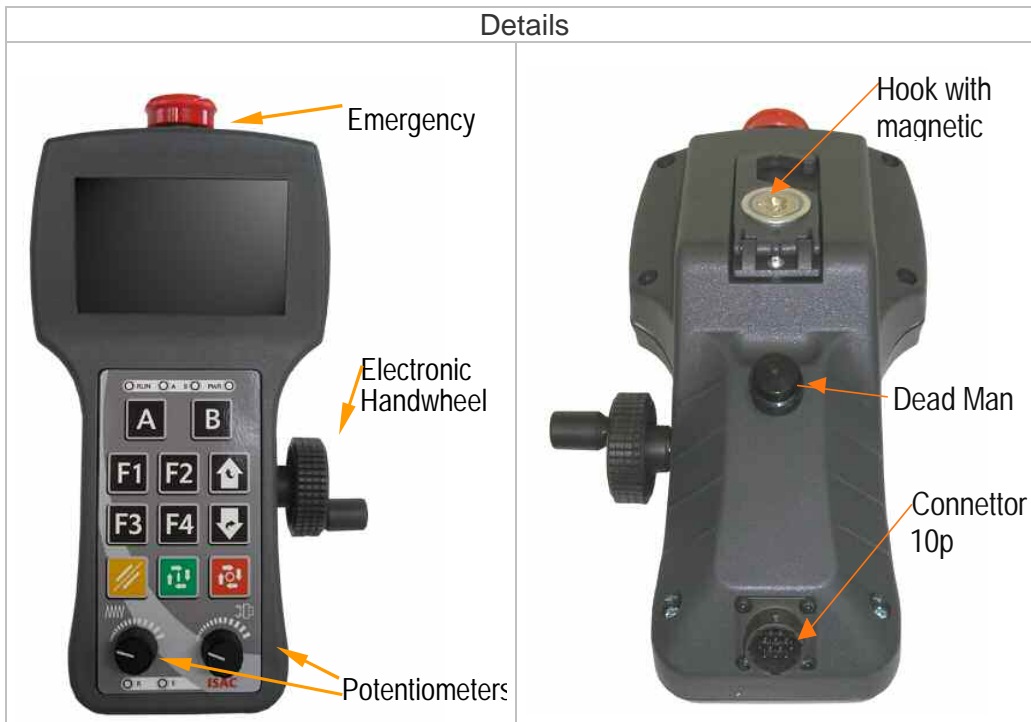
The terminal handheld device is equipped with:

- Graphical alphanumeric display with resolution of 128x64 pixel,
- 2 potentiometers for velocity override feed and speed,
- emergency push-button and operator push-button (dead man)
- reduced keyboard that is fundamental in order to work in manual and automatic mode, it includes:
  - 4 function keys (F1 ... F4)
  - operative keys: Start, Stop, reset and the A and B keys that are reserved to machine functionalities.

In accord to the option it could have electronic handwheel.

Option Code:

Code	Encoder Handwheel
OPPILOT10	NO
OPPILOT11	SI



The mould assures a good handling and the hook, provided by magnetic support, allows a fast hold on metallic surface, also in vertical position.

The overall dimension of Pilot unit, equipped with encoder handwheel, emergency and dead man push-button and potentiometers are the following:

HEIGHT	240,0 mm
WITH	140,0 mm
DEPTH	80,0 mm

The software of user interface can be customized by means of PLC software, or by means other application software that can run in CNC environment, so achieving the maximum flexibility of the application. The available functions are the activation of main CNC commands, the visualization of heights, warning and alarm messages, etc...

The text of messages can be easily translated into the wanted languages, included the not-western alphabet (Greek, Cyrillic, Japanese, Chinese ...).

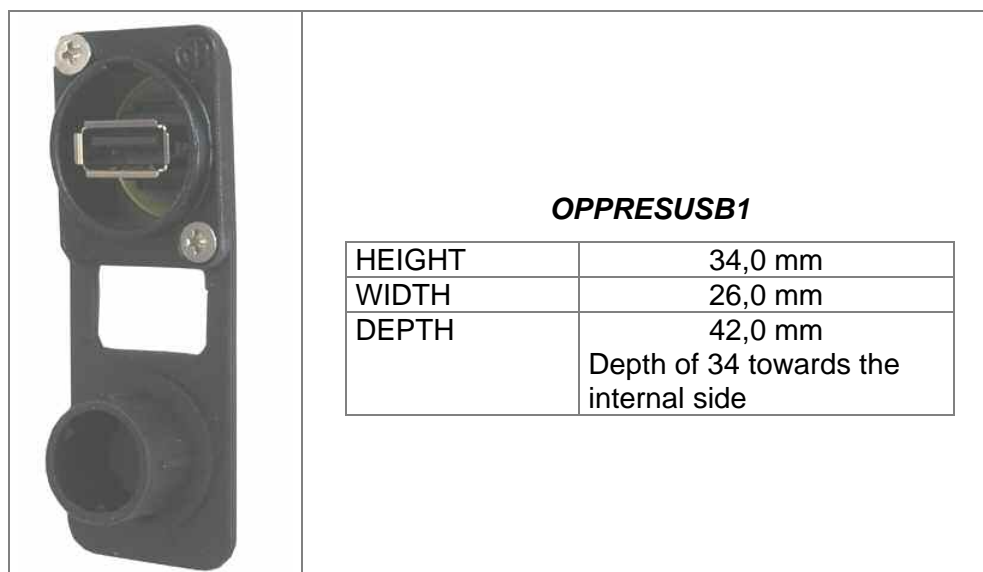


## Accessories on USB interface

Table with description of USB options

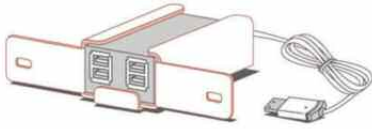
OPUSBMUX00	HUB for 4 USB ports with power supply and equipped with bearing for the fixing on DIN guide.
OPUSBMUX01	HUB for 4 USB ports provided with bearing for the fixing on wall.
OPUSBMUX02	HUB for 4 USB ports provided with bearing for the fixing on DIN guide.
OPFDUSB000	Floppy Disk, USB interface. It is provided with bearing for the fixing on wall.
OPUSBEXT01 (Note 1)	Local Unit (transmitter) with USB connector type A. The item is equipped with bearing for the fixing on DIN guide. The outgoing USB signal can be transmitted up to 40 mt. (with proper cable). (Note 1)
OPUSBEXT02 (Note 1)	Remote Unit (receiver) with USB connector type A female. The item is equipped with bearing for the fixing on DIN guide. (Note 1)
OPMODEM-USB	Modem, USB interface. It is equipped with bearing for the fixing on DIN guide.
OPUPS01	Power unit 550VA , USB interface
OPPRESUSB1	USB connector for front panel with protection cap against dust.

Note 1 = These options can constitute a kit for extending USB connection up to 40 mt.. The items must be connected with standard cable for local line Cat. 5 (STP). About the cable see the various accessories paragraph.

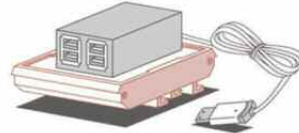




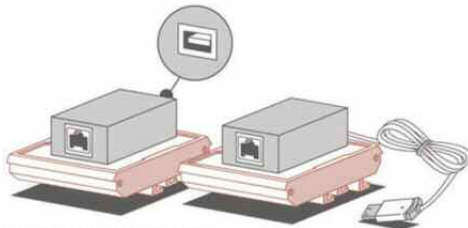
## Accessori USB



OPUSBMUX01

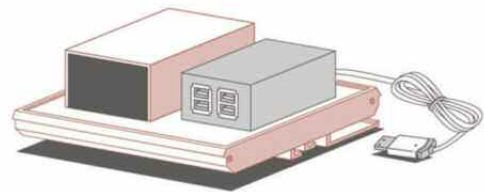


OPUSBMUX02

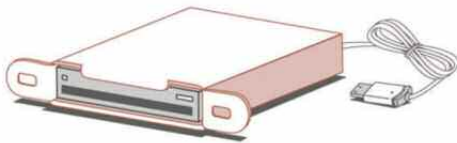


OPUSBEXT02

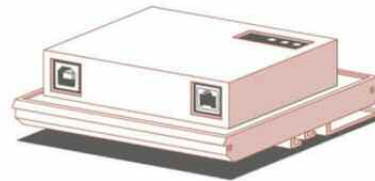
OPUSBEXT01



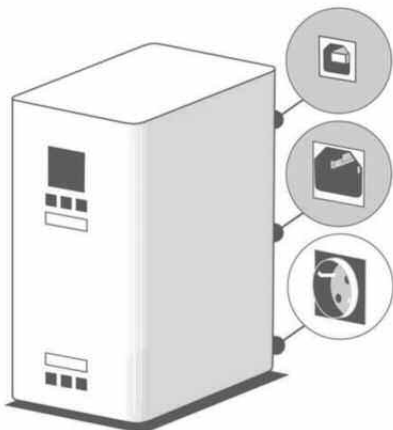
OPUSBMUX00



OPFDUSB00



OPMODEM-USB



OPUPS01

## Various Accessories

### Cables for remote placing

The **cables** for **remote placing of board** are:

- Cable to displace the board on LVDS interface (6 shielded pair) = Flat cable 25 pin pitch 1,27 mm, characteristic impedance 100 Ohm, in circular sheath with shielded and protection degree IP65, connectors 25 pin.
  - OPCATLVDS = Length 5,0 mt.
  - OPCATLVDS1 = Length 2,5 mt
- Cable to displace the board on VGA (6 shielded pair) = Standard VGA cable with degree of protection IP65, connectors 15 pin high-density male.
  - OPCATVGA0 = Length 25,0 mt.
  - OPCATVGA1 = Length 1,8 mt.
  - OPCATVGA2 = Length 10,0 mt
  - OPCATVGA3 = Length 5,0 mt



The **cables** for **USB** extension are the following:

- Standard Cable cat. 5 type STP (UTP) equipped with connectors RJ-45 male.
  - OPCAF100 = Length 10,0 mt.
  - OPCAF150 = Length 15,0 mt.

The **cables** for **PILOT** unit are the following:

- OPCAPILOT0 = Base cable of 1 mt. length with headed connector of type circular 10 pin female (1210S of series MIL-C-26482).
- OPCAPILOT1 = Extension of Pilot cable of 1 mt. length.

## Access Point for Wireless network

ISAC S.r.l. offers a complete series of products that can be employed in order to set up a local network (LAN) without cables (WAN – Wireless Area Network). There is an unique basic product that can be configured, with the collection of proposed options, in order to satisfy the various applicative necessities. The applicative functionalities are :

- Server (in order to connect with the wired LAN),
- Client,
- Repeater (in order to extend the wireless network).

The applicative necessities are:

- Installing inside of electrical cabinet,
- Installing as stand alone in an industrial environment,
- Facility in installing, monitoring and maintenance.

### Options

Here below there are the main options

#### Access Point Model type Protected IP65

OPAP54GIP0	Server Configuration
OPAP54GIP1	Client Configuration
OPAP54GIP2	Repeater Configuration



HEIGHT	180,0 mm
WIDTH	180,0 mm
DEPTH	60,0 mm

### Technical Data

#### Specifications

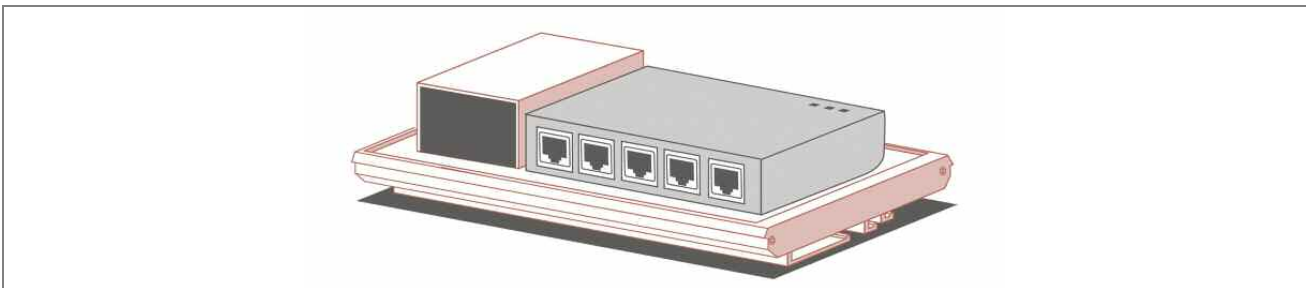
Standard for LAN wireless	IEEE 802.11g, IEEE 802.11b
Channels	13
Ports	10/100 Mbps, Auto-CrossOver (MDI/MDI-X)
Cabling Type	UTP or better
Data Rate	Up to 54 Mbps (Wireless) - 10/100 Mbps (LAN)
LED	Power, Diag, WLAN (Act, Link), LAN (Link/Act, Ful/Col, 100)
Transmit Power	15 dBm Note: the value is referred to standard case with the antennas furnished.
Reception level (typical values)	11Mbps: -80 dBm - 54Mbps: -65 dBm
Modulating	CCK, DQPSK, DBPSK, OFDM
Network Protocol	TCP/IP, IPX, NetBEUI
Security	WPA, WEP encryption, MAC addressing filter, SSID Broadcast (enabled/disabled)
WEP encryption key	64/128 bit
User interface	It is developed in accord to standard Web UI (Web Unique Interface) and so it is used through every Web Browser

## Technical Characteristics

Certifications	FCC Class B, CE
Operating Temperature	0°C ÷ 40°C
Storage Temperature	-20°C ÷ 70°C
Operating Humidity	10% ÷ 85%, Non-Condensing
Storage Humidity	5% ÷ 90%, Non-Condensing

## Switch for Ethernet network

The (OPHBSWITCH) Switch Fast Ethernet with 5 ports at 10/100 Mbit/sec and the proper power supply are equipped with support for the housing on standard DIN guide.



### Technical Characteristics

- o Standard Ethernet IEEE 802.3 (10Base-T) / Fast Ethernet 802.3u (100Base-TX).
- o Velocity 10/100 Mbit/sec in Full or Half Duplex mode and Self-negotiation on all ports
- o Status LED for power supply, 10/100 Mbit, Link/Activity.