SmartHUB
Home Automation Touchscreen and Energy Data Logger
Types BTM-T7-24, BTM-T4-24

CARLO GAVAZZI

BTM-T7-24

BTM-T4-24
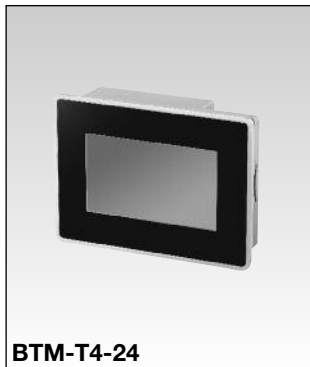
- High definition 7" and 4.3" colour touchscreen
- Easy setup of graphic pages and functions with the powerful software Wizard
- Remote access
- Activation of internet links through touch buttons
- Alarms management
- Support viewing from IP cameras
- Ready for Modbus TCP/IP
- Gateway KNX/EIB by means of a plug-in module BTM-KNX

Product Description

SmartHUB is a completely configurable touch display. It is available in two versions, 7" and 4.3" wide, featuring a bright TFT widescreen (16:9) display with LED backlight. By means of the configuration software, the installer can create his own HMI interface or adapt the template downloadable from the Carlo Gavazzi website, define the electrical values he needs to show/log, configure any Modbus RTU device very easily by just reading a csv file, read the smart-house configuration file and link the smart-house variable to images/pushbutton.

Energy monitoring
SmartHUB shows and logs the data collected from our Energy Meter on Modbus RTU or from inverters with Modbus RTU communication capability. It offers a wide range of analysis options: daily, monthly and annual graphs, relative and absolute yields, monetary yields, etc.

Home/Building automation
Connected via Modbus TCP/IP to the Carlo Gavazzi smart-house controller, SmartHUB is an elegant interface which can control all the home automation functions such as lights, scenarios, temperature, rollerblinds, alarms,… and can give information about everything that is happening in a house.
* Optional plug-in BTM-KNX provides a gateway between Smart Dupline and KNX/EIB bus.

Ordering Key

BTM-T7-24

Display
Inches
Power supply

Type Selection

Active display area	Resolution	Supply: 24 VDC
7" diagonal	800 x 480 pixel	**BTM-T7-24**
4.3" diagonal	480 x 272 pixel	**BTM-T4-24**

Optional Plug-in *

Module type	Application	Module
External plug-in	KNX/EIB	**BTM-KNX**

Supply Specifications

Power supply voltage		Current consumption	0.7 A at 24 VDC (max.)
BTM-T7-24	24 VDC (18 to 30 VDC) 24 VDC		
BTM-T4-24	24 VDC		
BTM-KNX	By BTM-Tx-24		

Specifications

Operating System		Windows CE 6.0	CPU	ARM, 600 MHz
Display			**User Memory**	128 MB Flash
Type		TFT	**RAM**	256 MB DDR
Resolution			**Front Panel**	
	T7	800 x 480 pixel	Touch screen	Analogue resistive
	T4	480 x 272 pixel	System LEDs	1
Active display area			**COM Ports**	RS-232, RS-485, RS-422 software configurable
	T7	7" diagonal		
	T4	4.3" diagonal	**Ethernet Port**	2 10/100 Mbit with integrated switch
Colours		64K		
Backlight		LED	**USB Port**	1 host interface, version 2.0
Brightness		150 cd/m2 typ.		
Dimming		Yes		

Specifications (cont.)

Memory Card	SD card slot
Enviromental Conditions	
Operating temperature	0 to +50°C
Storage temperature	-20 to +70°C
Operating and storage humidity	5 to 85% RH non-condensing
Protection class	IP66 (front panel) IP20 (rear)
Dimensions	
Faceplate	
T7	187 x 147 mm (7.36x5.79")
T4	147 x 107 mm (5.79x4.21")
Cutout	
T7	176 x 136 mm (6.93x5.35")
T4	136 x 96 mm (5.35x3.78")
Mounting depth	
T7	47 + 4 mm (1.85+0.16")
T4	56 + 4 mm (2.40+ 0.16")

Weight		
	T7	Approx. 1.5 Kg
	T4	Approx. 1.0 Kg
Battery		Replaceable Lithium battery
Fuse		Automatic
Approvals		cULus (UL508 Listed Haz. Loc. Class I, Division 2, Groups A,B,C and D
CE marking		Yes
EMC		Elektromagn. kompatibilitet
Emission		EN 61000-6-4
Immunity		EN 61000-6-2 for installation in industrial environments

Specifications (BTM-KNX)

Dimensions	
Faceplate	65.3x41.2mm (2.57x1.62")
Mounting depth	16.6 mm (0.65")

Mode of Operation

Intelligent functions
The SmartHUB touch display can be connected to the smart-house controller via Modbus TCP/IP to manage all home automation functions, to the energy meter (EM21, EM24, EM26, WM30) via Modbus RTU to manage the consumed energy, to the inverters, again via Modbus RTU, to supervise the produced energy of a residential photovoltaic plant.

Wizard software
The Wizard software offers full vector graphic capabilities and plenty of connection options.
The Wizard software supports:
• Full object dynamics: control visibility and transparency, movement, resizing or rotating of any object on screen, also changing properties of basic and complex objects.
• TrueType fonts
• Multi-language applications. Easily create and manage your applications in multiple languages to meet global requirements. Languages supported include European and Far Eastern. Wizard tools ease third-party integration and help to reduce development and maintenance costs of the application.
• Data can be displayed in numerical, text, bargraph, analogue gauges and graphic image formats.
• Rich set of state-of-the-art HMI features: data acquisition, alarm handling, calender based with real-time clock scheduler for timed actions (daily and weekly schedulers, exception dates), recipes, users and passwords, e-mail and RSS feeds, rotating menus.
• Remote monitoring and control. Client-Server functionality. Mobile clients supported.
• Off-line and On-line simulation with Wizard.
• Rich gallery of symbols and objects.
• Project templates.

Home automation
You can use the SmartHUB to switch lamps on and off, to dim them, to control scenarios, rollerblinds, alarms, temperatures and all the functions defined in your installation. The system can be connected to the Internet, enabling you to access e-mails and the weather forecast. The panel can also be linked to external monitoring systems, such as surveillance cameras, to monitor parts of a building directly from the touch panel. Furthermore, an audio/video system can be connected to control music and entertainment.
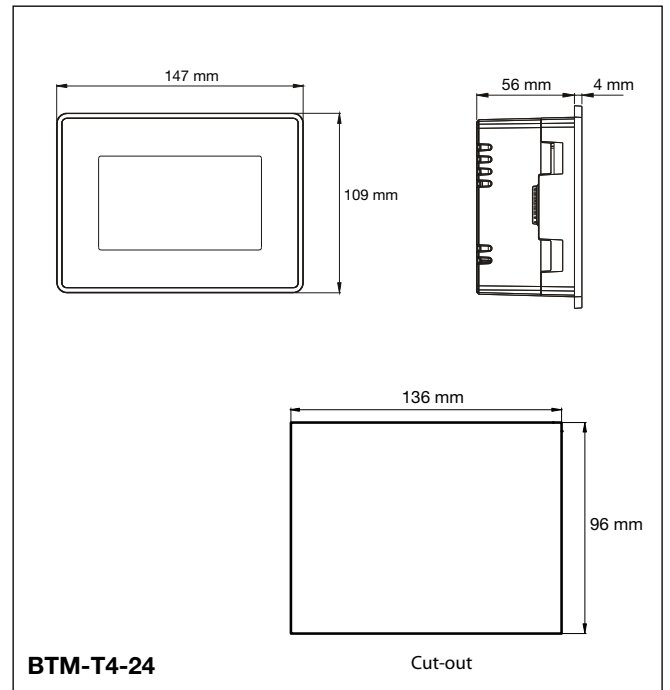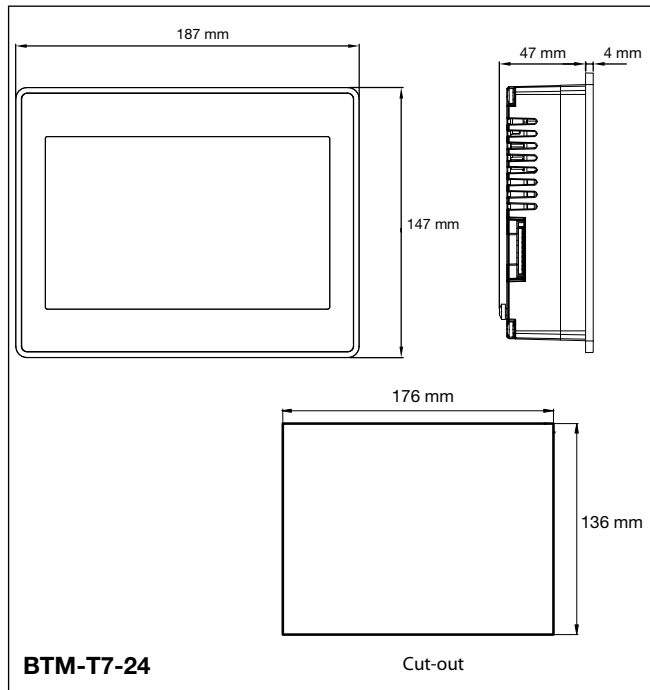
Energy management
The SmartHUB logs all the electrical variables collected from Carlo Gavazzi energy meters (EM21, EM24, EM26, WM30). Instant values are shown in a line chart coupled with icons (e.g. emoticons) in order to let the user see and understand the various consumptions. All the logged data is then shown on a bar graph so that a weekly, monthly or yearly overview can be seen by the home owner.

The various consumptions of electric, water and gas are expressed according to the entered tariffs, with the opportunity to manage them divided into 4 time bands.
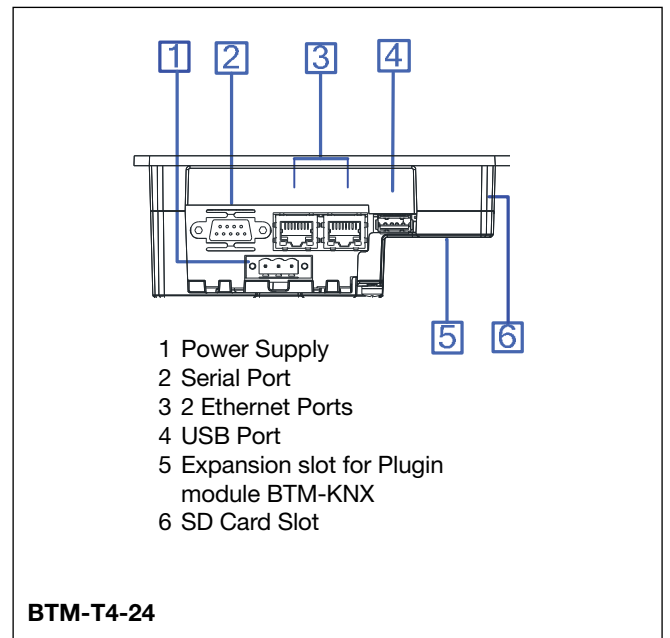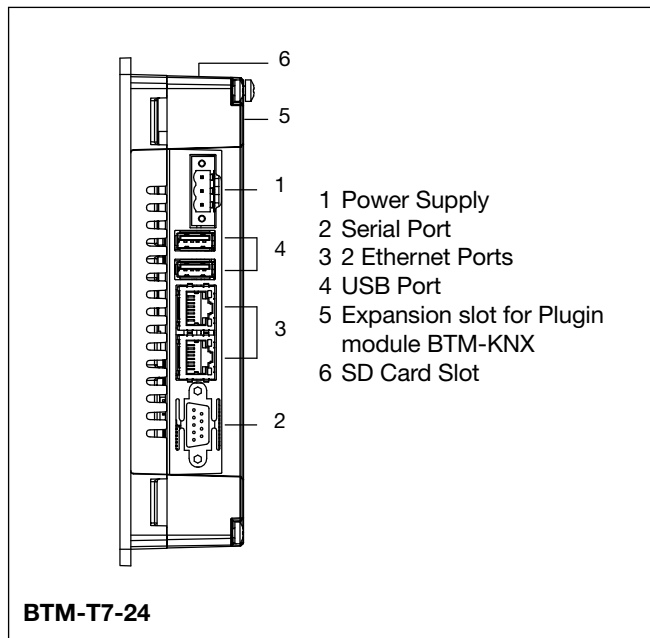
Photovoltaic plant
Innovative, user-friendly and easy to install: SmartHUB is the perfect system for monitoring and managing domestic photovoltaic plants up to 10 KWp. It allows you to monitor all aspects of the system, such as the amount of produced power, the energy yield, the return on investment (ROI) and the control of CO_2 emissions, storing data for 20 years. The today production is shown together with the yesterday one to give you a clear indication on how your plant is working. Daily, monthly and yearly yields are depicted in bargraph and logged on downloadable csv file.
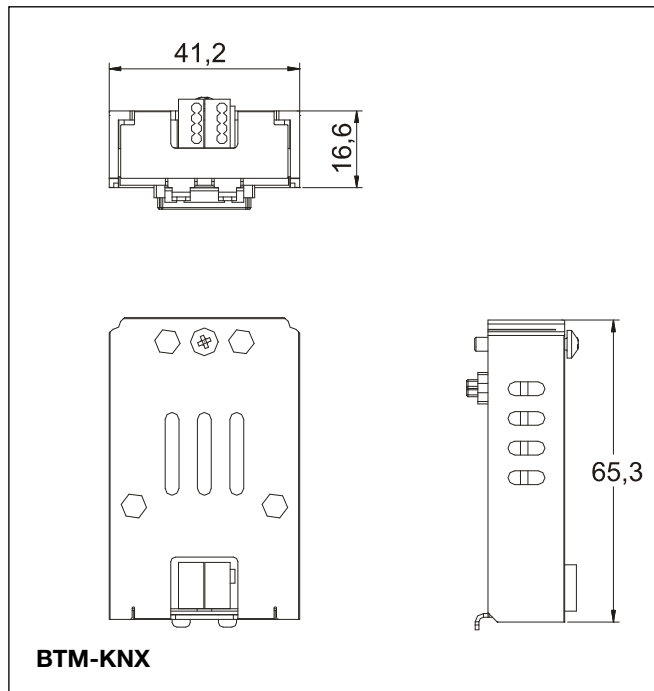
CARLO GAVAZZI

Dimensions

BTM-T7-24

187 mm
147 mm
47 mm
4 mm
176 mm
136 mm

Cut-out

BTM-T4-24

147 mm
109 mm
56 mm
4 mm
136 mm
96 mm

Cut-out

System Overview

1 Power Supply
2 Serial Port
3 2 Ethernet Ports
4 USB Port
5 Expansion slot for Plugin
   module BTM-KNX
6 SD Card Slot

BTM-T7-24

1 Power Supply
2 Serial Port
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BTM-T4-24

CARLO GAVAZZI

Dimensions

41,2

16,6

65,3

BTM-KNX

Mounting the module

1

3

2

4

BTM-KNX