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Eltako ELECTRONICS

Pushbutton input module FTS14EM

CE

Only skilled electricians may install this electrical equipment otherwise there is the risk of fire or electric shock!

Temperature at mounting location:
-20°C up to +50°C.
Storage temperature: -25°C up to +70°C.
Relative humidity:
annual average value <75%.

Pushbutton input module for the Eltako RS485 bus, 10 control inputs for universal control voltage. Only 0.1 watt standby loss.

Modular device for DIN-EN 60715 TH35 railmounting. 2 modules = 36 mm wide, 58 mm deep.

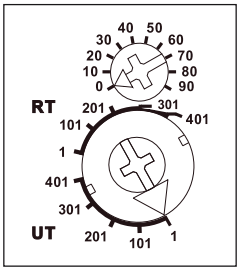
Connection to the Eltako-RS485 bus. Bus cross wiring and power supply with jumper. Operation in conjunction with FTS14KS or FAM14.

A 12 V DC voltage is supplied from a switching power supply unit FSNT14-12V/12W which has a width of only 1 module.

10 control inputs +E1 to +E10/-E electrically isolated from the supply voltage. Control voltage: 8..230 V UC.

Every button must be taught in with an identification number (ID) in one or several actuators as described in the operating instructions.

Function rotary switches



The lower rotary switch defines the group to which an FTS14EM belongs.

A total of 5 groups are available (1, 101, 201, 301 and 401) each with 100 IDs. The upper rotary switch (0 to 90) sets the ID within a group. The ID range within a group results from the combination of upper and lower rotary switches and must be set differently on each FTS14EM. Maximum ten FTS14EMs form a group. Therefore, a total of 50 FTS14EMs comprising 500 buttons are possible in one RS485 bus.

Every FTS14EM can be set either to UT (= Universal button) or to RT (= direction button) using the lower rotary switch.

The LED under the upper rotary switch flickers briefly when a connected button is pressed.

Optional: An FAM14 wireless antenna module (from Wireless Building System) which is only two modules wide can also be installed. Actuators can then be activated via the FTS14EM by wireless pushbuttons, hand-held transmitters and wireless sensors in addition to conventional buttons. As the FAM14 has an integrated switch mode power supply unit, the FTS14KS is no longer required for power supply in this configuration. The bidirectional FAM14 also permits a GFVS-Safe II to evaluate feedback messages from the actuators transferred by wireless. Each actuator status is then displayed and can also be changed. Connecting the HOLD terminals of all devices regulates bus access and prevents collisions.

The telegrams of the FTS14EM and FTS14KEM can also be sent to the Eltako Wireless Building with the optional **wireless output module FTS14FA**.

All hold terminals of the FTS14EM must be connected to the hold terminal of the FTS14KS or FAM14.

When 1 to 10 FTS14EMs are used, the HOLD terminal on <u>one</u> FTS14EM must be connected to the Enable terminal.

When 11 to 20 FTS14EMs are used, the HOLD terminal on <u>two</u> FTS14EMs must be connected to the Enable terminal.

When 21 to 30 FTS14EMs are used, the HOLD terminal on <u>three</u> FTS14EMs must be connected to the Enable terminal.

When 31 to 40 FTS14EMs are used, the HOLD terminal on <u>four</u> FTS14EMs must be connected to the Enable terminal.

When 41 to 50 FTS14EMs are used, the HOLD terminal on <u>five</u> FTS14EMs must be connected to the Enable terminal.

10 control inputs = 10 universal pushbuttons UT:
E1 = 0x70 (FT4- top right)
E2 = 0x50 (FT4- bottom right)
E3 = 0x30 (FT4- top left)
E4 = 0x10 (FT4- bottom left)
E5 = 0x70
E6 = 0x50
E7 = 0x30
E8 = 0x10
E9 = 0x70
E10 = 0x50

10 control inputs = 5 direction pushbuttons RT:
E1/E2 send 70/50 (= pushbutton right side top/bottom)
E3/E4 send 30/10 (= pushbutton left side top/bottom)
E5/E6 send 70/50
E7/E8 send 30/10
E9/E10 send 70/50

IDs are generated in "quasi-decimal" numbering in order to make it easier to convert terminal numbering to the button IDs to be entered in PCT14.

The ID numbers are therefore identical to the input numbers. You only need to add 1000.

Lower rotary switch on UT:
Each input has a separate ID.
IDs of first group:
0x1001..0x1010 (pushbutton 1..10)
0x1011..0x1020
0x1021..0x1030
0x1031..0x1040
0x1041..0x1050 (pushbutton 41..50)
0x1051..0x1060
0x1061..0x1070
0x1071..0x1080
0x1081..0x1090
0x1091..0x1100 (pushbutton 91..100)
IDs of second group:
0x1101..0x1110 (pushbutton 101..110)
0x1111..0x1120
0x1121..0x1130
0x1131..0x1140

0x1141..0x1150 (pushbutton 141..150)
0x1151..0x1160
0x1161..0x1170
0x1171..0x1180
0x1181..0x1190
0x1191..0x1200 (pushbutton 191..200)
..etc.. until group 5

Lower rotary switch on RT:
IDs are combined in pairs. There are no odd numbers. Numbering (in steps of 2) is simpler with even numbers than with odd numbers.

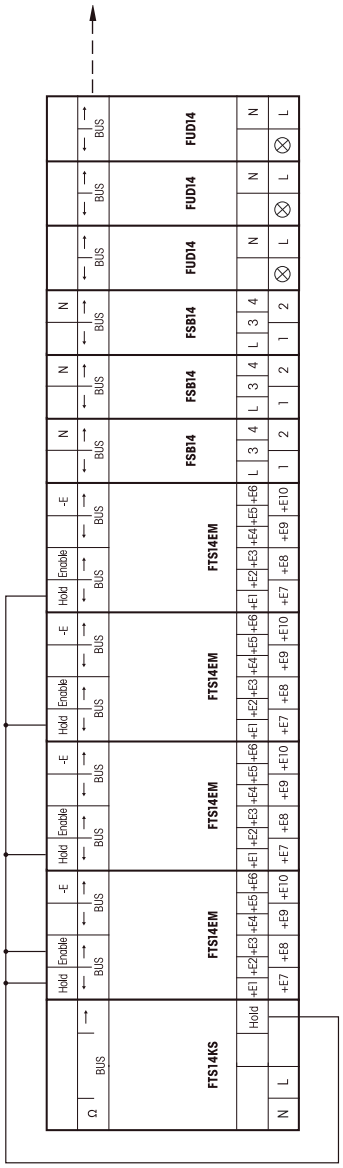
Pushbutton 1..10
E1 und E2 = 0x1002
E3 und E4 = 0x1004
E5 und E6 = 0x1006
E7 und E8 = 0x1008
E9 und E10 = 0x1010

Pushbutton 11..20
E1 und E2 = 0x1012
E3 und E4 = 0x1014
E5 und E6 = 0x1016
E7 und E8 = 0x1018
E9 und E10 = 0x1020
..etc.

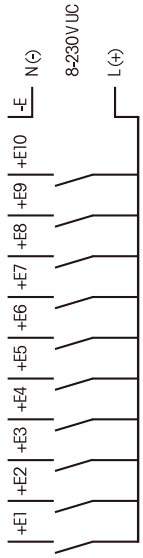
Technical data

Control voltage:	Control current:
8 V AC/DC	1.4 mA/2.5 mA
12 V AC/DC	2.3 mA/4.0 mA
24 V AC/DC	5.0 mA/9.0 mA
230 V AC/DC (<5 s)	5(100) mA/5(100) mA
Parallel capacitance (approx. length) control lead at 230 V	0.9 µF (3000 m)
Standby loss	0.1 W

Typical connection



The second terminator which is included in the FST14KS has to be plugged to the last actuator.



Control inputs FTS14EM

Must be kept for later use!
We recommend the housing for operating instructions GBA14.

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40/2015 Subject to change without notice.