FOXTROT

PRODUCT INFORMATION

EN

Inteligence for machines, processes building and transport

... a small part of a big orchestra

www.tecomat.com

What is Tecomat Foxtrot?

Tecomat Foxtrot – it is a new small modular control and regulation system produced by the Teco company. Thanks to the powerful processor unit with wide range of communication possibilities, ingenious system of input/output peripheries or original interconnection with the world of intelligent electroinstallations, the Tecomat Foxtrot can be proudly designated as a control system of a „new generation".

The description of main features of the Tecomat Foxtrot system

Higher performance

The core of the Tecomat Foxtrot system consists of a powerful processor unit with 32 bit RISC processor and a speed of up to 0.2 ms/1k of instructions.

Bigger memory

Tecomat Foxtrot contains a slot for freely removable memory flash card (SDHC, SD, MMC). Data are saved into a structure of files (File system). Flash card can contain web pages created by the WebMaker tool which is a part of a MOSAIC programmable environment.

Elaborated communication

Appart from a high-speed 100Mb Ethernet and two communication channels, Tecomat Foxtrot offers quite new unique CIB bus (Common Installation Bus). Consequently, it is possible to connect arbitrary distributed intelligent electroinstallation elements to the control system.

Mechanical design

The module design is compatible by its size with standardized electroinstallation products and offers savings and comfort during system assembly.

Ingenious modularity

The basic module has features of a compact system – next to communication interfaces, it contains inputs, outputs and display with buttons. ***NEW!*** Peripheral modules can be connected to the basic module via the system bus (TLC2) on the distance of up to 1700 m.

The world of intelligent electroinstallations

By interconnection of Tecomat Foxtrot with intelligent electroinstallation elements, the modern system of distributed control is created. Units can be divided into, so called, sensors (switches, buttons, indicators), actuators (relays, dimmers etc.) and special features (e. g. control terminals).

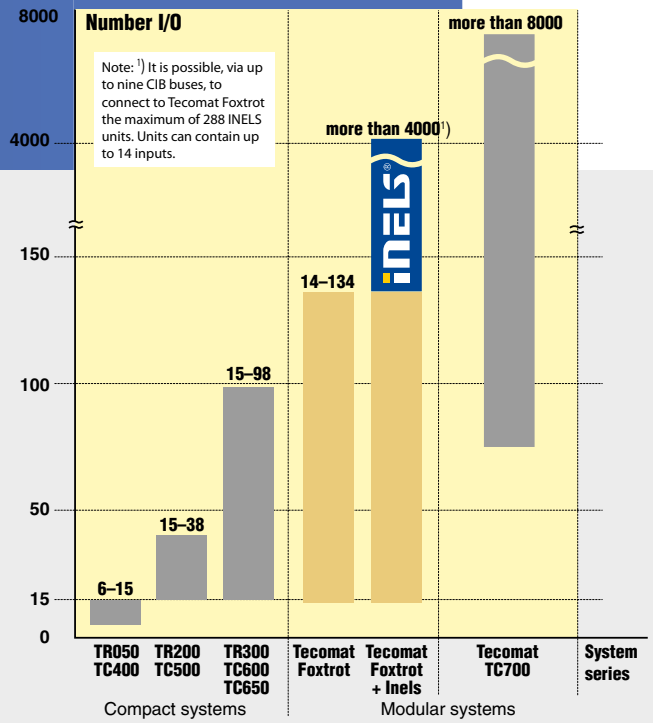
Programming within the Mosaic environment

It is designated for creating and debugging of programs for Tecomat control systems. It is in accordance with the IEC61131-3 standard. There are four different languages at disposal and other auxiliary tools to ensure an easy and intuitive program creation – e. g. parameters setup of the regulation circuit. On-line programming, project archivation in the system memory or WebMaker tool for system web interface creation. ***NEW!***

Wireless system RFox

Tecomat FOXTROT becomes more universal thanks to two way wireless system RFox with acknowledgement. ***NEW!***

The comparison of Tecomat Foxtrot and other control systems produced by Teco company.



Selected certificates and proofs:

ISO 9001

Declaration of conformity

Surges and sinusoidal vibrations withstand capability

Application possibilities of the Tecomat Foxtrot system:

Technical installation of buildings:

- Heating, ventilation and air conditioning (HVAC) control integration
- Consumption measuring and control of all energy types (Energy Management)
- Building safety elements integration (alarm systems/fire-fighting systems)
- Access systems integration – doors, gates, corridors (Access Control)
- Perfect coordination of building processes
- Control of higher savings on media consumption optimization

Machine industries:

- High computation performance – 0,2 ms/1k of instructions
- Number of protocols of industry buses (Profibus DP, CAN, Modbus)
- Fast inputs for connection of more incremental position encoders
- Period and phase shift measurement for connection of a generator to phases

Industry process control:

- On-line programming – comfort application reviving and maintenance via the program editing when the system is running
- Web interface for parameterization and maintenance purposes
- Removable flash memory card for archivation of data, recipes and interface web pages
- Remote access
- Supply back-up via addable storage batteries
- System memory back-up
- Standard measuring ranges of inputs including thermocouples
- I/O decentralization within the distance of up to 1700 m via the optical interconnection

Components of the Tecomat Foxtrot system

Tecomat Foxtrot consists of:

Basic modules equipped with
– processor unit
– communication ports
– inputs and outputs
– display with buttons [1])

Peripheral modules containing
– inputs and outputs

Intelligent electroinstallation units performed
– into installation box
– as a module on the U-bar of the switchboard box
– as a wall type for interiors
– special

Accessories containing
– operator panels – character and graphic
– supply sources with the back-up possibility
– optical interconnection modules
– CIB bus separators
– modules for increasing the number of CIB buses
– GSM modules for SMS messages
– wireless modules RFox

Note:
[1]) CP-1014, CP-1015 only

SDHC, SD, MMC flash card slot. Data on the card are organised to the file structure. It is possible to save archive data, technological processes recipes etc. Pages provided by the web server are saved onto the card.

Space for jumpers differentiating a character of 6 universal inputs of the basic modules CP-1005 and CP-1015:
1) jumper not inserted – binary input or voltage measuring
2) jumper inserted on the left side – passive resistive sensors (RTD) measuring
3) jumper inserted on the right side – current measuring
Each input is configurable independently.

The lock for the U-bar arretation.

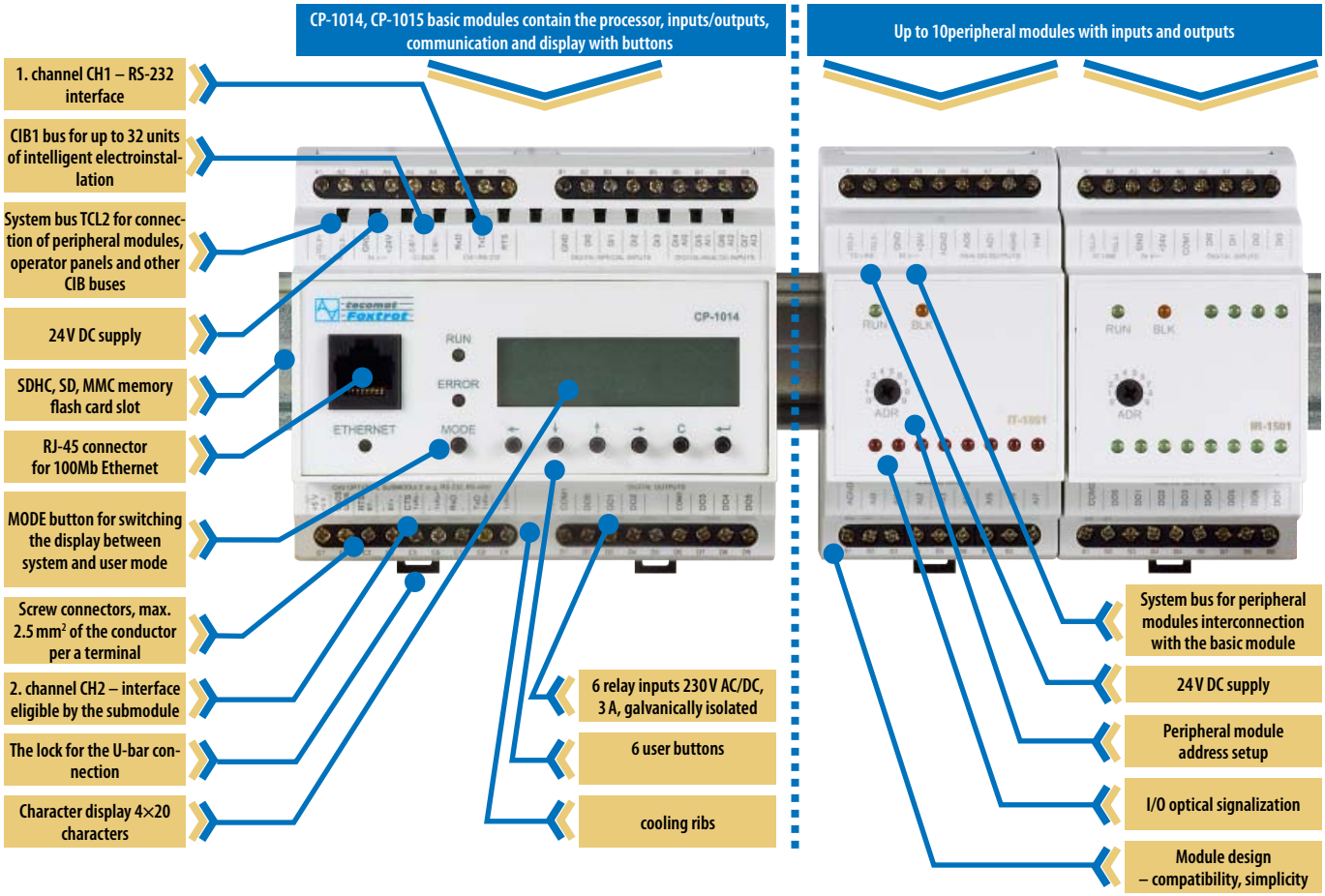
The side part of the basic module is equipped by cooling ribs.

Terminal boards of the basic module are standard cage fixed connectors with the 5.08 mm pitch. The clasp pitch of the connector is 0.08 up to 2.5 mm².

PS2-60/27 source is designated for supply of industry equipment backed-up via maintenance-free Pb storage battery 24 V.

The source offers the supply onto two levels: 27.2 and 12 V DC.

Tecomat Foxtrot utilizes the module design to ensure an easy installation onto the U-bar



By Tecomat Foxtrot interconnection with inteligent electroinstallation elements, the modern system for buildings and industry applications is arisen

RCM2-01 room terminal for heating or air conditioning control in the interior. It is equipped by the character display with special symbols and rotator combined with the button.

The composition of the Tecomat Foxtrot system

Up to 10 peripheral modules with inputs and outputs can be connected to the basic module via the internal TCL2 bus. Via the CIB bus, it is possible to connect up to 32 CIB electrical installation system elements using, so called, „open" topology. This method of connection saves time and also finances necessary for installation of intelligent elements for building control (light, heating, ventilation, security etc.). For connection of other electrical installation units, it is possible to use up to 4 CIB Master modules, labeled MI2-02M, connectible to the internal bus TLC2. Each module enables the connection of up to 2 CIB buses for total number of 64 units. As a consequence, the Tecomat Foxtrot system involves up to 9 CIB buses with up to 288 electrical installation units. Besides CIB units Tecomat Foxtrot can connect up to 64 wireless peripherals RFox.

Which modes communication channels of the Tecomat Foxtrot system operate in?

Protocol	Mode	CH1	CH2	Ethernet
EPSNET	PC	■	■	■
	PLC	■	■	■
	UNI	■	■	■
	MPC	■	■	
MODBUS	MDB	■	■	■
PROFIBUS DP	PFB	■	■	
	DPS		■	
CAN	CSJ		■	
	UPD		■	

Backed-up supply

Supply source backed-up by the storage battery

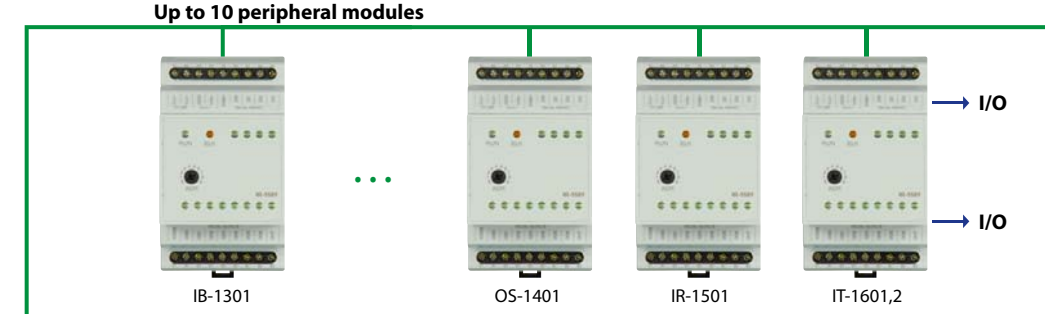
PS2-60/27

Supply source

DR-60-24

Peripheries

Up to 10 peripheral modules



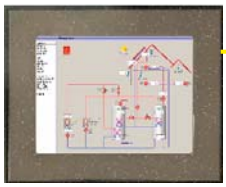
IB-1301 · OS-1401 · IR-1501 · IT-1601,2

Master CIB

Panel ID-17

CIB MI2-01M · MP bus UC-1203 · Opentherm UC-1204 · RFox RF-1131 · Fibre optic multimode KB-0552

Panels



ID-15, ID-25

Camera

Ethernet

Fast Ethernet 100 Mb

Scada programming

SCADA, remote Internet control

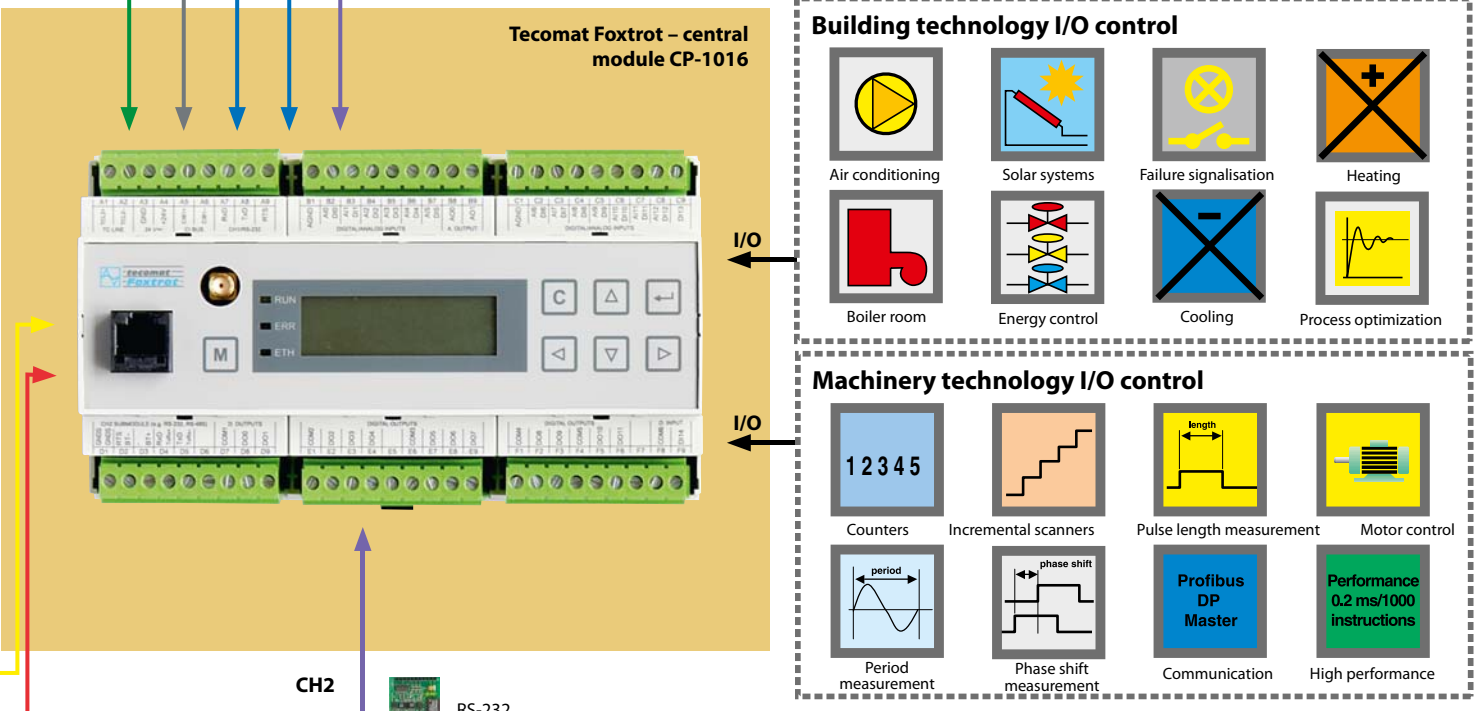
Internet

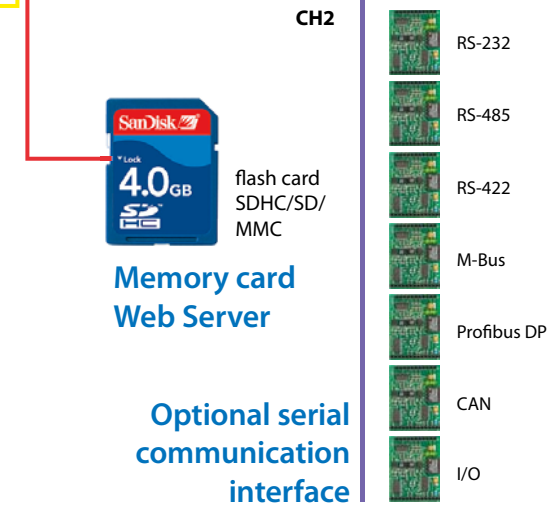
Tecomat TC700

Tecomat Foxtrot

Integration to other control systems network

CIB, RFox Intelligent electrical installation





The description of Tecomat Foxtrot communication modes

- **PC** – connection of PLC (Slave) in the PC mode to the master system (PC, PLC...) via the EPSNET protocol without any other interference to the user program, the complete file of EPSNET services is accessible on one channel only at the time. Within the Ethernet interface – EPSNET UDPa protocol on TCP/IP networks.
- **PLC** – interconnection of up to 32 PLC systems among themselves to ensure fast data transfers via the EPSNET-F protocol using reservation of transfer zones within the same registries of all PLC, high network transmissivity, up to 238 bytes from one participant. Ethernet interface – TCP/IP network.
- **UNI** – uses the support of characters orientated serial protocols with asynchronous transfer for communication of PLC with the end-device (operators panel, printer...). Ethernet interface – common data interchange via UDP and TCP protocols.
- **MPC** – connection of up to 64 PLC within the PC mode to several master systems via EPSNET multimaster protocol, up to 238 bytes from one participant.
- **MDB** – connection of higher number of participants (Slave) within the Modbus network to the master system.
- **DPS** – connection of Foxtrot as a slave system via the Profibus DP protocol.
- **PFB** – connection of up to 32 Slave devices to the Foxtrot via Profibus DP protocol.
- **CSJ** – CAN network with the transition speed of up to 1MBd.
- **UPD** – connection of special devices via the universal parallel driver.

Fully controlled house or building

iNELS® RFox®

Light

Bulbs
Fluorescent tubes
Valves
Diodes
Blinds
Venetian blinds

Dimming

- LM2-11B, 1 × channel
- DA2-22M, 2 × channel
- LBC2-02M, 2 × channel
- DIM-6, 1 × channel

Switching

- SA2-02B, 2 × RO
- SA2-02M, 2 × RO
- SA2-04M, 4 × RO
- SA2-012M, 12 × RO

Heating

Central heating
Cooling
Air conditioning

Control

- Heat wall sensor WTS2-01
- Digital thermoregulator RCM2-01
- Digital room thermoregulator IDRT2-1
- Analog room thermoregulator IART2-1

Thermal valve actuators

- ALPHA AA 24V
- ALPHA AA 230V
- ALPHA AA 0–10V

- HC2-01B, 1 × AO/1 × RO
- DAC2-04B, 4 × AO
- DAC2-04M, 4 × AO
- FCC2-01 FAN-COIL

Security

Access systems

- Security keyboard KEY2-01R
- Wall card scanner WMR2-11

EZS

- PIR motion detector JS-20
- Glass breaking detector GBS-210
- Magnetic door switch SA-200, SA-201

EPS

- Flammable gases detector GS-133
- Smoke optical detector SD-212SP

Alarm

- Interior alarm SA-913
- SA2-01B, 1 × RO
- IM2-140M, 14 × DI

Automation

Control

- WSB2-20
- WSB2-40
- WSB2-80
- Button sensors
- Multifunctional unit SOPHY
- Touch – using the touch panel
- Via internet
- Via mobile phone
- IR remote control
- Voice

Back-up supply

- PS2-60/27
- DR-60-24

Control units

- Foxtrot

Data measuring

- IM2-20, 40, 80 B, 2, 4, 8 × DI
- ADC2-40M, 4 × AI

SMS

- GSM2-01 SMS

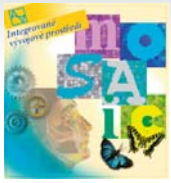
CIB

- MI2-02M CIB master
- BPS2-01M, BPS2-02M CIB bus separator

RFox

- RF-1131

SW Tools



MOSAIC

It is a complex development instrument for programming of standard and demanding applications of Tecomat systems. Mosaic enables an userfriendly program creation and debugging, creation of extensive projects including a great number of control systems of remote I/O modules. Mosaic employs many modern technologies. The environment architecture as well as individual tools of Mosaic are in accordance with the IEC61131-3 standard.

Important features:

- Programming according tolEC 61131-3
  IL – Instruction list
  ST – Structured Text
  LD – Ladder Diagram
  FBD – Function Block Diagram
- Function blocks libraries
- Project management
- WebMaker – NEW!
- GraphicalPanelMaker – NEW!
- PanelMaker
- GraphMaker
- PIDMaker
- Controller and network configuration
- Standard debugging, reverse compilation
- PLC and OP simulation
- On-line programming
- Number of supporting tools

Member of
PLCopen
Standardization in Industrial Control programming

Inels Designer and Manager

Parametrization tool IDM – Inels Designer and Manager is ready for an easy and fast installation of a modern electrical installation system INELS for CIB and RFox units. With the help of IDM, it is possible to set the control of light, heating, air conditioning or energy consumption. IDM ensures alarm notices and communication with the user via PC or a mobile phone. Thanks to an in-built simulator of CPU, it is possible to undertake all possible settings and debugging off-line.

Important features:

- Parametrization
- Project manager
- SMS manager
- Events management
- User communication (PC, SMS)
- CPU simulator, off-line/on-line
- Manager and Designer modes
- Graphic object import possibility
- Project web pages creation

SCADA Reliance

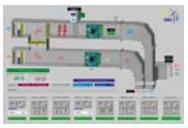
It is a modern open SCADA/HMI system for monitoring and control of industrial technologies in real time. Using Reliance, it is possible to create a graphical user interface between the controlled technology and the operator. Reliance is a richly scaling, secure and rug system, optimised for very extensive applications, too.

Important features:

- Minimization of technology failures by early warning of the operator
- Data flow redundancy
- Subsequent failure analysis
- Uninterupted data access (GSM, Internet)
- Simple and well-arranged development environment
- Presence of direct communication drivers
- OPC client

Basic modules of the environment:

Design
View
Control
Control Server
Server
Web Client
Mobile Client



OPC server pro Tecomat

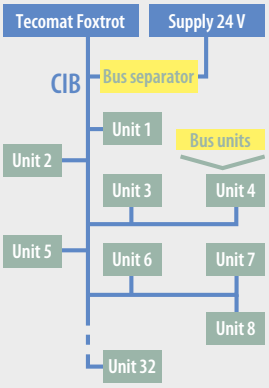
Possibility of data exchange between Teco products and other systems that are OPC clients. OPC (Object Linking and Embedding for Process Control) represents a common standard of data exchange within industrial automation. OPC is a file of specifications which allow creation of a general purpose interface for data transmission among individual programs within a computer or network.

Important features:

- Client – Server
- Periodical data reading/entry
- Station system time reading
- Variable values simulation
- Random value generation
- Variable format change

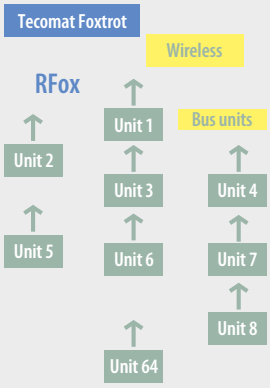
CIB

(Common Installation Bus) two-wire „open topology" installation bus where up to 32 peripheral bus electrical installation units can be connected to. The bus ensures both power supply voltage for individual units and communication between these units and the Tecomat Foxtrot system. The communication is „modulated" on the power supply voltage. The supply of the bus is standardly 24 V DC or 27,2 V DC in case of system back-up during the power supply failure (EZS).



RFox

RFox is two way wireless network designed for control system Tecomat Foxtrot. RFox provides connection up to 64 peripheral I/O units to central module Foxtrot. RFox wireless units acknowledge receiving instructions sent from a central module Foxtrot.



Components

Group name	Basic modules	Communication interface submodules	Communication supplements	Panels	Power supplies
Basic characteristics	Basic modules can contain 2 communication channels, fast Ethernet 100 Mb, System Bus (TCL2), CIB Master for CIB units, RFox master for wireless communication, native I/Os, card slot for SDHC, SD, MMC flash memory and button display. They are equipped with RTC and RAM buck-up of up to 500 hours. Fully backed-up program and table memory are 192+64 kB, Databox is 128 kB.	Interface submodules create the interconnection between the communication channel of the basic module and a relevant industry bus. Submodules with inputs/outputs extend the capacity of the basic module for other I/O peripheries.	They serve to galvanical or impedant isolation of buses, to interface transfer, to CIB buses number extension that are connected to the basic module or to ensure the overvoltage guard for CIB bus.	Panels are designated for data, alarms, text messages, graphic objects viewing, for entry and change of task parameters and for maintenance. They are used for user interface creation. Panels comply with demands on industry environment usage. It is possible to connect them via the system bus, serial interface RS-232/485/422 or via Ethernet interface.	Power supplies PS are designated for the supply of Tecomat systems, input/output circuits and CIB bus. They are one- up to two-level sources with a high effectivity, low level of radiance and good resistance against the input overvoltage.

Types, functions, size

CP-1004
SDHC/SD/MMC Flash card, **Ethernet 100 MB, CH1 RS-232, CH2 optional, 1×CIB, 6× universal input** 230V/ 3 A, **MOSAIC,** *90 × 106 × 65*

CP-1005
SDHC/SD/MMC Flash card, **Ethernet 100 Mb, CH1 RS-232, CH2 optional, 1 × CIB, 6 × universal input** (DI: 24V or AI: 0–20 mA, 2V, 10V, Ni1000, Pt100, 14 bit), **2 × AO** 0–10V, **6 × RO** 230V/ 3 A, **MOSAIC,** *90 × 106 × 65*

CP-1014
SDHC/SD/MMC Flash card, **Ethernet 100 Mb, CH1 RS-232, CH2 optional, 1 × CIB, 8 × DI** 24V (4 × AI: 10 bit/0–10V, 4 × fast inputs), **6 × RO** 230V/ 3 A, **display 4 × 20 char., 6 buttons, MOSAIC,** *90 × 106 × 65*

CP-1015
SDHC/SD/MMC Flash card, **Ethernet 100 Mb, CH1 RS-232, CH2 optional, 1 × CIB, 6 × universal input** (DI: 24V or AI: 0–20 mA, 2V, 10V, Ni1000, Pt100, 14 bit), **2 × AO** 0–10V, **6 × RO** 230V/ 3 A, **display 4 × 20 char., 6 buttons, MOSAIC,** *90 × 106 × 65*

CP-1016 ***NEW!!!***
SDHC/SD/MMC Flash card, **Ethernet 100 Mb, CH1 RS-232, CH2 optional, 1 × CIB, 1 × RFox, 13 × universal input** (DI: 24V or AI: 0–20 mA, 2V, Ni1000, Pt1000, OV1000, 12 bit), 1 × DI: 230V AC, 1 × Pulse Input 5 Hz, **2 × AO** 0–10V, **2 × DO** SSR, **10 × RO** 230V/3 A, **display 4 × 20 chars, 6 buttons, MOSAIC,** *90 × 160 × 65*

CU2-01M
Ethern et 100 Mb, CH1 RS-232, 2 × CIB, (up to 64 units, possibility to expand up to 192 units), **2 inputs for electronic alarm system, 4 NO/NC inputs, 2 PSM inputs** – check of system power supply, **1 output relay, IDM,** *90 × 106 × 65*

MR-0104
RS-232, GI, internal supplying, identification

MR-0114
RS-485, GI, internal supplying, identification

MR-0124
RS-422, GI, internal supplying, identification

MR-0152
Profibus DP slave

MR-0158
M-Bus Master for 6 to 20 stations

MR-0159
LON submodule

MR-0160
2 CAN interfaces, SJA1000 controller

MR-0161
CAN interfaces, SJA1000 controller

PX-7811
7 × DI, 24V DC, GI, identification

PX-7812
4 × DI, 3 × DO, 24V DC, GI, identification

KB-0552
Fiber optic converter, standard patch cable ST- ST, connector ST, fiber type – glass multimode 62.5/125 mm, at max.1700 m
90 × 18 × 65

UC-1203 ***NEW!!!***
MP Bus for up to 8 Belimo MFT drivers, *90 × 18 × 65*

UC-1204 ***NEW!!!***
Opentherm for communication with heating boilers, *90 × 18 × 65*

RF-1131 ***NEW!!!***
RFox master for up to 64 modules with I/Os, *90 × 18 × 65*

MI2-02M
External CIB bus master, **1 × TCL2 /2 × CIB,** *90 × 18 × 65*

BPS2-01M
CIB bus separator from power supply, **1 × CIB,** *90 × 18 × 65*

BPS2-02M
CIB bus separator from power supply, 2 channels, **2 × CIB,** *90 × 52 × 65*

DTNVEM 1/CIB
Overvoltage protection for CIB bus, **CIB,** *89 × 13 × 65*

SX-1162 ***NEW!!!***
Ethernet switch for up to 5 × UTP ports 10/100BaseTX, *90 × 36 × 65*

105FX ***NEW!!!***
Ethernet switch for up to 4 × UTP ports 10/100 BaseTX and 1 × 100 Base FX optical network, *97 × 38 × 120*

306FX2 ***NEW!!!***
Ethernet switch for up to 4 × UTP ports 10/100 BaseTX and up to 2 × 100 Base FX optical network, *88 × 51 × 86*

GSM2-01
is gate for the communication with mobile phone, **GSM – SMS**, RS-232, *90 × 52 × 65*

INSYS GSM Small ***NEW!!!***
GSM gate for Foxtrot remote control using up to 48/32 in/out SMS, RS-232, *120 × 23 × 75*

INSYS GPRS Ethernet ***NEW!!!***
GSM gate connects 10 Base-T Ethernet with GPRS using IP, *55 × 110 × 75*

MoRoS GPRS 1.3 PRO ***NEW!!!***
GSM gate connects 10 Base-T Ethernet with GPRS using IP, firewall, switch, *55 × 110 × 75*

SMM-33 ***NEW!!!***
complex monitoring three-phase electrical network, 90 × 53 × 89

ID-15
Graphical touchscreen panel for wallmounting, **TFT, 5.7", 640×480 pixels, Ethernet,** 1× audio out, Linux OS, FireFox included, 24 V DC

ID-25 ***NEW!!!***
Graphical touchscreen panel for switchgear, **TFT, 5.7", 640×480 pixels, Ethernet,** 1× audio out, Linux OS, FireFox included, 24 V DC

ID-17 ***NEW!!!***
Graphical panel, mono, **240 × 64 pixels, 2 × RO** (230 V AC), **4 × DI** 24 V DC, **MOSAIC,**

ID-14
Textual panel 4 × 20 char., 26 buttons, system bus, master or slave, 24 V DC

ID-08
Textual panel 4 × 20 or 2 × 16 char., 26 buttons, serial interface, master or slave, 24 V DC

ID-07
Textual panel 2 × 16 char., 8 buttons, serial interface, master or slave, 24 V DC

PS2-60/27
Power supply 230 V AC/ **27.2 V DC**, 2.2 A for power supply back-up and **12 V DC**, 0.3 A, *90 × 106 × 65*

DR-60-24
Power supply 230V AC/**24 V DC**, 4.5 A
93 × 78 × 56

PBQ 1270
Accumulator 7 Ah, 12 V DC
94 × 151 × 65

PBQ 12150
Accumulator 17 Ah, 12 V DC
167 × 181 × 76

Remote I/O for the system bus TCL2

Peripheral modules are connected to the basic module via the TCL2 system bus. They are fitted with inputs or outputs for connection of galvanically isolated binary or analog signals. Modules contain I/O indication, communicate independently with the processor unit, contain autoidentification.

IB-1301
12×DI, 24V AC/DC, 5ms, (can be configured as 4 fast inputs), GI
90×52×65

OS-1401
12×DO, 24V DC/ 0.5A–1A, Transistor, GI
90×52×65

IR-1501
4×DI, 24V AC/DC, 5ms (can be configured as 4 fast inputs), **8×RO** 230V AC/DC, GI, *90×52×65*

IT-1601
8×AI, 16bit, **20mA, 2V, 10V, Ni1000, Pt100**, **2×AO**, 0–10V, 8bit, GI
90×52×65

IT-1602
8×AI, 16bit, **Thermocouples J, K, R, S, B, Ni1000, Pt100**, **2×AO**, 0–10V, 8bit, GI
90×52×65

MT-1690
4 shunts for current inputs 0–20 mA for CP–1004, CP-1014

MT-1691
Resistance 7k5 for supplying of individual circuits for the connection of RTD to IT-1601 module

Remote I/O for the installation boxCIB

Thanks to CIB units designated for the installation box, it is possible to transfer peripheries of the control unit as close as possible to the controlled technology – to lights, heating thermo valve actuators, FAN-COIL units etc. Through these elements, it is enabled to use also interior units of other producers.

IM2-20B
Input unit, **2×DI**/DC, **1×Ti, CIB**
49×49×13

IM2-40B
Input unit, **4×DI**/DC, **1×Ti, CIB**
49×49×13

IM2-80B
Input unit, **8×DI**/DC, **1×Ti, CIB**
49×49×13

SA2-01B
Single channel switching unit, **1×RO, 1×Ti, CIB**
49×49×13

SA2-02B
Double channel switching unit, **2×RO, 1×Ti, CIB**
49×49×13

LM2-11B
Single channel dimming unit, **1×DI**/DC, **1×R, L, C, 1×Ti, CIB**
49×49×13

HC2-01B/AC
Silent thermo valve actuators controller, 1×DO, 1×Ti, CIB, 49×49×13

HC2-01B/DC
Silent thermo valve actuators controller, 1×AO: 0–10V, 1×Ti, CIB, 49×49×13

DAC2-04B
Output unit (D/A), **4×AO, 1×Ti, CIB**
49×49×13

Remote I/O for the installation box RFox

Thanks to RFox units designated for the installation box, it is possible to transfer peripheries of the control unit as close as possible to the controlled technology – to lights, heating thermo valve actuators, FAN-COIL units etc. Through these elements, it is enabled to use also interior units of other producers.

R-IB-0400B
NEW!!!
Wireless input unit, 4×DI, RFox,
90×52×65

R-OR-0001B
NEW!!!
Wireless relay unit, 1×RO 230V AC, 16A, **RFox**, *49×49×25*

R-OR-0002B
NEW!!!
Wireless relay unit, 2×RO 230V AC, 16A, **RFox**, *49×49×25*

Remote I/O for the DIN rail CIB

CIB module units are designated for mounting into the switch board. This design is suitable for communication elements, separators and units that control the switching of whole plugs circuits or they regulate whole groups of lights or regulation heating cups at one time.

IM2-140M
Input unit, 14×DI, DC, **CIB**
90×52×65

SA2-02M
Double channel switching unit, **2×RO, 2×BUT, CIB**
90×18×65

SA2-04M
Quadruple channel switching unit, **4×RO, 4×BUT, CIB**
90×52×65

SA2-012M
Switching unit with 12 channels, **12×RO, 12×BUT, CIB**
90×106×65

DIM-6
Controlled dimmer for higher loads, **1×R, L, C, 1×AI, 1×DI, 2×BUT, 1×Ti, CIB**
90×106×65

DA2-22M
Double channel dimming unit, **1×R, L, C, 2×DI, 2×BUT, 1×Ti, CIB**
90×52×65

LBC2-02M
Double channel operating unit for light ballasts DIML, **2×RO, 2×AO, 2×BUT, CIB**
90×52×65

ADC2-40M
Input unit (A/D converter), **4×AI, CIB**
90×52×65

DAC2-04M
Output unit (D/A converter), **4×AO, CIB**
90×52×65

FCC2-001
Unit for continuous control of heating and air-conditioning unit fans (fan-coil controller), local mode with connected thermostat / network unit, step (up to 5 steps) / continuous control, 230 V AC, **CIB**
110×125×53

Remote controllers for interiors

Elements designated for interior use are equipped with CIB communication. Control unit, therefore, is able to evaluate the address and location of the control unit and also to attribute an event initiated by button pressing or by code entry on the keyboard to the selected action link – relay or thermo valve actuator.

RCM2-01
Digital room thermoregulator, **1×ROL, 1×TL, CIB,** *112×87×20*

IART2-1
Analog room thermoregulator, **2×BUT, 1×ROL, 1×Ti, CIB,** *84×89×30*

IDRT2-1
Digital room thermoregulator, **4×BUT, 1×Ti, CIB,** *84×89×30*

SOPHY2-L
Multifunctional operating unit, operation by **IR in/out, light sensor, 1×BUT, 1×Ti, CIB,** *84×89×30*

WSB2-20
Wall switch button with short-way control**,** group controller with **2×BUT, 1×Ti, CIB**
84×89×30

WSB2-40
Wall switch button with short-way control, group controller with **4×BUT, 1×Ti, CIB**
84×89×30

WSB2-80
Wall switch button with short-way control, group controller with **8×BUT, 1×Ti, CIB**
84×89×30

WMR2-11
RFID Wall card media reader, **1×RO, 1×Ti, CIB,** *84×89×30*

KEY2-01R
Keyboard for security system, CIB,*122×148×32*

R-RC-0001R *NEW!!!*
Wireless digital room thermoregulator, 1×ROL, 1×BUT, RFox, *112×87×20*

R-ID-0002T *NEW!!!*
Wireless controller witch touch display, QVGA, RFox, *120×90×24*

R-KF-0500T *NEW!!!*
Wireless personall controller – „key case", 5×BUT (5 orders), RFox, IDM, *72×53×15*

R-ID-0001T *NEW!!!*
Wireless personall hand controller, 3×BUT (3 orders), RFox, IDM, *38×80×15*

IR-B
IR remote controller Basic for the connection with Sophy unit

IR-C
IR remote controller Comfort for the connection with Sophy unit

Electronic security system components

Designed for the Intelligent electroinstallation system in connection with units that are equipped with output of supply voltage of 12 V DC and allow the connection of a sensor with a balanced output. Components are used for the detection of an unwanted person presence or for flammable gases presence.

JS-20 „Largo“
PIR motion detector, 12 V DC

GBS-210 „VIVO“
Broken glass detector, 12 V DC

SA-200
Magnetic door contact for security of building parts that can be open.

SA-201
Magnetic door contact for security of building parts that can be open.

SA-220
Heavy-duty magnetic detector

SD-212SP
Optical smoke detector, siren, relay, 10–15 V DC

GS-133
Detector of flammable gases – (coal gas, propan, butan, acetylene, hydrogen), reacts in two levels of concentration, 12 V DC

SA-913
Interior alarm

OS-365
Outdoor alarm

Sensors CIB

Indoor air quality detectors and temperature sensors are used for controlling heating, ventilation, recuperation and air-conditioning.

C-IT-0200R-Time ***NEW!!!***
Wall-mounted temperature sensor with design ABB, 1 × Ti, CIB, *max 87 × 89 × 30*

C-IT-0200R-Element ***NEW!!!***
Wall-mounted temperature sensor with design ABB, 1 × Ti, CIB, *max 87 × 89 × 30*

C-IT-0200R-Impuls ***NEW!!!***
Wall-mounted temperature sensor with design ABB, 1 × Ti, CIB, *max 87 × 89 × 30*

C-IT-0200R-Alpha ***NEW!!!***
Wall-mounted temperature sensor with design ABB, 1 × Ti, CIB, *max 87 × 89 × 30*

C-IT-0200R-Future Linear ***NEW!!!***
Wall-mounted temperature sensor with design ABB, 1 × Ti, CIB, *max 87 × 89 × 30*

C-IT-0200R-Time ***NEW!!!***
Wall-mounted temperature sensor with design ABB, 1 × Ti, CIB, *max 87 × 89 × 30*

C-IT-0100H-A ***NEW!!!***
Temperature sensor, aluminium head with shank, –20 °C.. +80 °C, CIB, *86 × 80 × 72*

C-IT-0100H-P ***NEW!!!***
Temperature sensor, plastic box with shank, –20 °C.. +80 °C, CIB, *65 × 65 × 35*

C-IT-0200I ***NEW!!!***
2-Channel temperature sensor, plastic box, –20 °C.. +80 °C, CIB, *65 × 65 × 35*

C-AQ-0001R ***NEW!!!***
Indoor air quality detector, CO_2 concentration, CIB

C-AQ-0002R ***NEW!!!***
Indoor air quality detector, VOC – Volatile Organic Compounds, CIB

C-AQ-0003R ***NEW!!!***
Indoor air quality detector, nicotian smoke detection (coal gas, propan, butan, methan, hydrogen)**, CIB**

C-AQ-0004R ***NEW!!!***
Indoor air quality detector, relative humidity, temperature, dew-point, CIB

WTS2-01
Wall-mounted temperature sensor 1 × Ti *84 × 89 × 30*

TC-0 (3,6,12)
Temperature sensor, 0 °C.. +70 °C, cable 0 up to 12 m, double insulation

TZ-0 (3,6,12)
Temperature sensor, –40 °C.. +125 °C, cable 0 up to 12 m, double insulation

Sensors RFox

Indoor air quality detectors are used for controlling heating, ventilation, recuperation and air-conditioning.

R-AQ-0001R ***NEW!!!***
Indoor air quality detector, CO_2 concentration, RFox

R-AQ-0002R ***NEW!!!***
Indoor air quality detector, VOC – Volatile Organic Compounds, RFox

R-AQ-0003R ***NEW!!!***
Indoor air quality detector, nicotian smoke detection (coal gas, propan, butan, methan, hydrogen)**, RFox**

R-AQ-0004R ***NEW!!!***
Indoor air quality detector, relative humidity, temperature, dew-point, RFox

Dimming lighting balasts

Lighting balasts DIML are used for brightness regulation of fluorescent tubes with the T8 tubes (diameter 26 mm).

DIML 1840
Dimming ballast, **0.09 A, 16 W, tube 18 W T8**

DIML 5458
Dimming ballast, **0.25 A, 50 W, tube 58 WT8, 55 W TC-L**

DIML 218
Dimming ballast, **0.18 A, 16 W, tube 18 W T8**

DIML 25458
Dimming ballast, **0.48 A, 50 W, tube 58 WT8, 55 W TC-L**

Thermostatic valve actuators

Thermostatic valve actuators ALPHA are used for heating control within intelligent electroinstallation system.

ALPHA AA 0–10 V
Thermostatic valve actuator **0–10 V** for continuous control of thermostatic valves

ALPHA AA 230 V
Thermostatic valve actuator **230 V** for control of thermostatic valves of floor, radiator and convector heating

ALPHA AA 24 V
Thermostatic valve actuator **24 V** for control of thermostatic valves of floor, radiator and convector heating

Components

Company introduction

Honoured friends, we would like to introduce you the Czech company Teco, Inc., which offers you products presented in this catalogue. Many of our customers already use Tecomat control systems that were applied within many processes in industry and also in building equipment technology. We do believe that the choice of Tecomat will satisfy your expectations and we look forward to mutual cooperation in the future.

Teco team, Inc.

Teco, Inc., is a distinguished Czech producer of industry control systems of the PLC (Programmable Logic Controller) category produced and tested in accordance with internationally valid and recognized IEC/EN 61131 standards.
Teco, Inc.,. is a member of the international organisation PLCOpen which launch and enforce these standards.
Teco, Inc., ensures the quality of its products and production processes in accordance with the EN ISO 9001:2000 standard.
Teco, Inc., guarantees a long-life of its products together with a technical and service support.
Teco, Inc., provides enhanced operation reliability and highly elaborated communication capacity of its products.
Teco, Inc., supports its customers by providing a regular training of project managers, programmers and users.
Teco, Inc., provides 36 months guarantee service and continuous product service. Service accessibility is 24 hours a day.
Teco, Inc., – it means a long-term customer investment protection.

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