

free Way

Programmable controllers



The Eliwell solution that combines speed and reliability in a full range of compact, high-performing products.

[Data Sheet](#)

General description

Eliwell's new programmable platform

FREE Way: Eliwell's new approach to programmability, giving customers the tools to develop their own solutions faster and more effectively.

FREE Way is the new programmable platform from Eliwell, consisting of the **FREE Studio** software suite, **FREE Smart** and **FREE Evolution**, the new range of programmable controllers available in multiple formats.

FREE Studio, simple and flexible, is compatible with the 5 standard programming languages (IEC 61131-3), and is structured to manage a whole range of controllers of different sizes and with varying levels of complexity, in order to fully satisfy the customer's system customization requirements.



FREE Smart features

- User interface with configurable keys
- Available in three formats
 - **FREE Smart SMP*** 32x74mm
 - **FREE Smart SMD*** 4 Din with LED display
 - **FREE Smart SMC*** 4 Din with no display
- * Electrical connections compatible with existing Eliwell product platforms (e.g. Energy Flex)
- Can be connected to RS-485, Modbus RTU Slave
- Can be connected to standard Eliwell peripherals and user interfaces.



FREE Evolution features

- Fully customizable graphic user interface.
- Available in two formats
 - **FREE Evolution EVD** 8 Din with graphic, backlit LCD display
 - **FREE Evolution EVC** 8 Din with no display
- High connectivity: integrates into industrial systems, BMS and networks using dedicated plug-in modules.
- Connects to standard Eliwell peripheral devices (including **FREE Smart**).
- Connects to standard third-party peripheral devices.



FREE Studio features

- Quick and easy programming.
- Unique software suite.
- Complete and effective online help.
- Advanced debugging and simulation options.
- Application protection.
- Different levels of operation.
- Application revision log.
- Customizable interface.





SPEED

One of the main goals of the **FREE** programmable platform is to give their own customers the tools to find faster, more effective solutions for their customers. Many features of **FREE** make it possible to effectively reduce the time between defining a new application and rolling it out.

COMPACT

The new **FREE** programmable platform enables customers to keep costs at a competitive level. The **FREE** controllers are made with particular emphasis placed on technological solutions and physical size, so that significant results in terms of simplicity, modularity and compactness can be achieved. The integrated solutions and smaller controller size of **FREE** devices provide real and immediate economic advantages for customers.

EFFICIENCY

The **FREE** programmable platform, complete and scalable across various levels of complexity, offers customers great freedom in choosing the solution they feel is best suited to their own requirements. This makes it easier to find solutions which take account of costs and/or the reduction of product codes, including solutions which are more open to future development or future system requirements, with particular reference to connectivity.

RELIABILITY

The high quality of the new **FREE Way** programmable platform allows customers to reduce any costs linked to a lack of quality, during both the production process and on-site installation procedures. The **FREE Smart** and **FREE Evolution** controllers and the **FREE Studio** development environment were designed using innovative but carefully reconstructed criteria, by adopting advanced and stable technological solutions as well as certified and monitored production processes. Eliwell has always been a byword for reliability.



Target consumers

FREE Way is designed for:

Manufacturers of:

- A.H.U.s (Air Handling Units)
- Chillers
- Heat Pumps
- Rooftops
- Compressor Rooms
- as well as...

Installers/integrators of:

- All air systems
- Hydronic systems
- Combi systems (air/water)

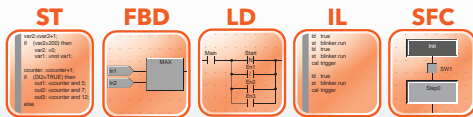
FREE Studio

The **FREE Studio** software suite is compatible with all 5 standard programming languages (**IEC 61131-3**).

Each project may consist of several programs. The developer may use one or more languages in the same project.

Each new programme actually offers the choice of 5 programming languages, 2 text-based and 3 graphics-based:

- **ST, Structured Text**
- **FBD, Functional Block Diagram**
- **LD, Ladder**
- **IL, Instruction List**
- **SFC, Sequential Function Chart**



Main functions

Variable display while the application is running

Debugging of variables by displaying their status in numerical format when the application is running and connected to **FREE Smart** and **FREE Evolution**.

Function libraries

Management of default function libraries and/or those created by the developer.

Any additional boards are managed by that developer.



Components

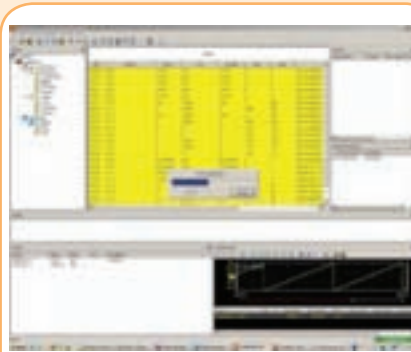
Variable graphs

Debugging of variables by displaying their status in graphic format when the application is running and connected to **FREE Smart** and **FREE Evolution**.



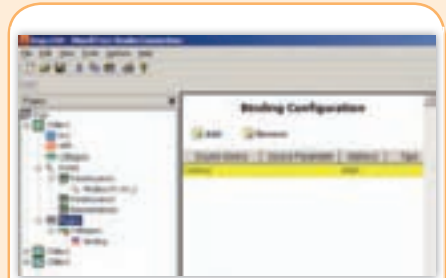
Application

Component for software developers to allow them to develop and modify applications in the 5 standard programming languages.



Device

Component specifically for less experienced users, allowing them to manage parameters, download applications, run field tests, etc.



Connection

Network configuration component, for both field and open networks in order to integrate other systems.



Installation and system requirements

Operating Systems

- Windows 7 Home / Professional / Ultimate
- Windows XP Home / Professional SP2 or SP3

Installation setup, software updates, reference libraries and documentation are also available from the website.

www.eliwell.it once you have registered.

An Internet connection is required for access to software and manual documentation.



Resources Available

The IEC programmer includes the following resources:

	FREE Smart	FREE Evolution
CPU	14.7 MHz	72 MHz, 32MB RAM
Available memory for Application	190KByte	1MByte
Available memory for User Interface	-	1MByte
FLASH memory data	-	126MByte
RAM Memory*	2300Byte	512KByte
RAM Memory**	1024Byte	500 word
EEPROM variables	1024Byte	4000 word

* automatic mapping

** Modbus mapping



Reading / writing of variables.

The operating environment makes the following possible:

- Creation of special menus to be shown on the controller display.
- Reading and writing BIOS parameters (parameters + I/O values).
- Reading and writing parameters and variables defined by the developer in **Applications** linked to the menu.

Online Help for programmers at all stages of the programme development process, accessible from the work screen by simply pressing **F1**.

The entire help is also available in a **printable pdf**.



User Interface

Component for developing and personalizing the graphic interface on user terminals.



Simulation

Component for simulating the application on a PC.



Minimum kit for system developers

FREE Smart

- **FREE Studio** installation setup.
- 1 **FREE Smart SMxxxx***
- 1 **DMI 100-3 Manufacturer** + yellow TTL cable
- 1 optional **MFK** + blue TTL cable
- **FREE Smart*** power cables and transformer

* alternatively, request the **Demo Case**

FREE Evolution

- **FREE Studio** installation setup
- 1 **FREE Evolution EVD7500/U**
- USB/RS485 adapter or USB/CAN Open or Ethernet plug-in for PC connection
- **FREE Evolution** power transformer

FREE Smart Models



The models are available as a DIN rail-mounted version (**SMD** with display, **SMC** with no display), which saves time in terms of wiring, and in the compact 32x74 Eliwell (**SMP**) size for panel-mounting.

Eliwell supplies various expansion modules (**SE**) and terminals (**SKP**, **SKW**) for use in conjunction with the corresponding models in the **FREE Smart** range.

All inputs and outputs are independent and configurable, meaning they can be adapted to fit any system.

Model	Part Number	Digital outputs(*)	TRIAC outputs(*)	O.C. outputs PWM / PPM (**)	Analogue outputs (**)	Digital inputs (***)	Analogue inputs (**)	O.C. outputs PWM
FREE Smart • (/S) models integrated RS485 •/C indicates that there is a RTC - Real Time Clock								
	SMP5500/C/S	SMP5500050400	5	-	2	3	5	1
	SMP4600/C/S	SMP4600050400	4	1	2	3	5	1
	SMP5500/C	SMP5500010400	5	-	2	3	5	1
	SMP4600/C	SMP4600010400	4	1	2	3	5	1
	SMD5500/C/S	SMD5500050400	5	-	2	3	5	1
	SMD4600/C/S	SMD4600050400	4	1	2	3	5	1
	SMD3600/C/S	SMD3600050400	3	2	1	3	5	1
	SMD5500/C	SMD5500010400	5	-	2	3	5	1
	SMD4600/C	SMD4600010400	4	1	2	3	5	1
	SMD3600/C	SMD3600010400	3	2	1	3	5	1
	SMC5500/C/S	SMC5500050400	5	-	2	3	5	1
	SMC4600/C/S	SMC4600050400	4	1	2	3	5	1
	SMC3600/C/S	SMC3600050400	3	2	1	3	5	1
	SMC5500/C	SMC5500010400	5	-	2	3	5	1
	SMC4600/C	SMC4600010400	4	1	2	3	5	1
	SMC3600/C	SMC3600010400	3	2	1	3	5	1

Expansion modules

	SE632	SE63020310400	3	-	2	-	3	1
	SE646	SE64123510400	4	1	2	3	5	1
	SE655	SE65023510400	5	-	2	3	5	1

Terminals

Model	Part Number	Mounting	Dimensions	Display	Analogue Inputs (**)	Power supply
SKP10	SKP1000000000	Panel	74x32x30 mm	LED / 4 digit	-	from base
SKW22 SKW22L	SKW2200000000 SKW22L0000H00	Wall	137x96.5x31.3 mm	LCD Backlit LCD	1 integrated NTC 1 configurable NTC/DI/4...20mA input	from base 100-240V~
SKP22	SKP2200000000	Panel (°)	160x96x10mm	LCD	1 NTC input 1 configurable NTC/DI/4...20mA input	from base
SKP22L	SKP22L0000000	Panel (°)	160x96x10mm	Backlit LCD	1 NTC input 1 configurable NTC/DI/4...20mA input	from base

(*) high voltage

(**) low voltage (SELV: SAFETY EXTRA LOW VOLTAGE)

(***) no voltage

(°) Contact the Eliwell Sales Office for wall-mounting accessories.

PPM Pulse Position Modulation

PWM Pulse Width Modulation

TTL supplied as standard

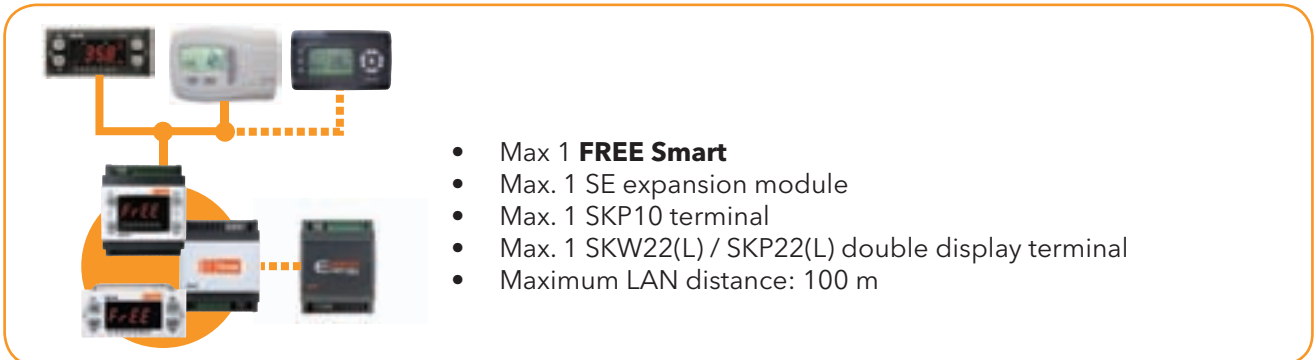
O.C. Open Collector

FREE Smart Connectivity

All **FREE Smart** models are equipped with a TTL serial port connection which offers easy integration with the devices used to monitor the system in which they are installed. ModBus standard protocol makes it possible to access all the controller resources, thereby guaranteeing complete system control. **/S** models have an integrated RS485 serial port.

Every model featuring the **FREE** platform can be connected to an SE expansion module via the LAN serial port, and to:

- SKP10 and/or SKP22(L) terminal to view the menu the menu on the integrated machine display
- 1 SKW22(L) terminal to view the menu the menu on a display remotely in another location (office, home) with the option of monitoring the temperature of the room.



FREE Smart Update Function

The Multi Function Key (MFK 100) can be used to upload and download the parameter map for rapid configuration, to upload IEC and BIOS applications.

Multi Function Key / DMI		
PC →	← FREE	
Use blue TTL cable for DMI - MFK connection		
direction	→	←
Data downloading		
Parameter map	-	-
IEC application	✓	-
BIOS	✓	-

Multi Function Key		
MFK →	← FREE	
Use yellow TTL cable for MFK - target connection		
direction	→	←
Data downloading		
Parameter map	✓	✓
IEC application	✓	-
BIOS	✓	-

✓ available

Network		
PC →	← FREE	
Use yellow TTL cable for DMI-target connection		
direction	→	←
Data downloading		
Parameter map	✓	✓
IEC application	✓	-
BIOS	✓	-

SMP • SMD • SMC 5500 / 4600



SMP



SMD

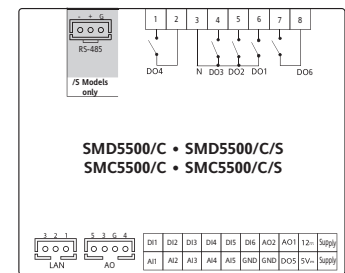
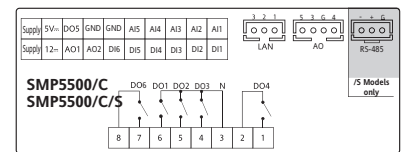


SMC

FREE Smart 5500 technical data

	SMP5500	SMD5500	SMC5500
Format	32x74x80 mm (Lxhxd)		4 DIN
Display	4-digit LED 7 segments	4-digit LED 7 segments	-
Power supply		12...24V~ / 24V~	
Digital outputs	5	5 x 2A 230V~	
		2 x Open Collector PPM/PWM	
Analogue outputs	5	2 x 0-10V	
		1 x 4...20mA / 0...20mA	
Digital inputs	6	6 voltage FREE	
Analogue inputs	5	3 x NTC/ D.I.	
		2 x NTC/ D.I./ 4...20 mA / 0-10V/0-5V/0-1V	
		TTL	
Connectivity		/S RS485 models only	
		LAN connection to SKP/SKW terminal or SE expansion module	

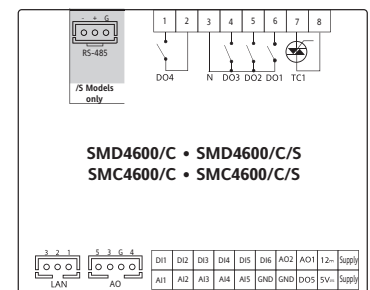
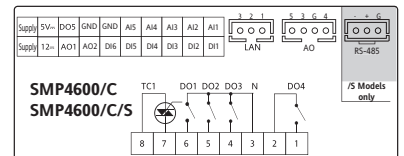
5500 wiring diagrams



FREE Smart 4600 technical data

	SMP4600	SMD4600	SMC4600
Format	32x74x80 mm (Lxhxd)		4 DIN
Display	4-digit LED 7 segments	4-digit LED 7 segments	-
Power supply		12...24V~	
Relay digital outputs	4	4x2A 230V~	
		1 x TRIAC 2A 230V~	
Analogue outputs	6	2 x Open Collector PPM/PWM	
		2 x 0-10V	
		1 x 4...20mA / 0...20mA	
O.C. digital outputs	1	1 x Open Collector PWM	
Digital inputs	6	6 voltage FREE	
Analogue inputs	5	3 x NTC/ D.I.	
		2 x NTC/ D.I./ 4...20 mA / 0-10V/0-5V/0-1V	
		TTL	
Connectivity		/S RS485 models only	
		LAN connection to SKP/SKW terminal or SE expansion module	

4600 wiring diagrams



SMP • SMD • SMC 3600 / Expansion modules



SMD



SMC



SE

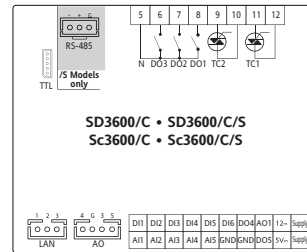
FREE Smart 3600 technical data

	SMD3600	SMC3600
Format	4 DIN	4 DIN
Display	4-digit LED 7 segments	-
Power supply	12...24V~	
Relay digital outputs	3	3 x 2A 230V~
Analogue outputs	6	2 x 3A 230V~ TRIAC
		1 x Open Collector PPM/PWM
		2 x 0-10V
		1 x 4..20mA / 0...20mA
O.C. digital outputs	2	2 x Open Collector PWM
Digital inputs	6	6 voltage FREE
Analogue inputs	5	3 x NTC / DI
		2 x NTC/ DI/ 4...20 mA /0-10V/0-5V/0-V
Connectivity		TTL
		/S models with RS485 only LAN connection to SKP/SKW terminal or SE expansion module

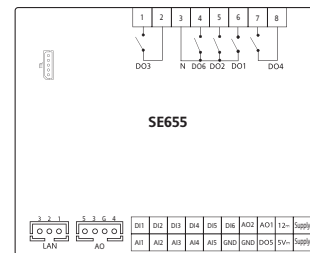
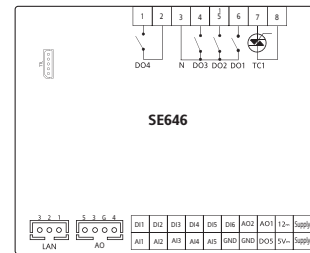
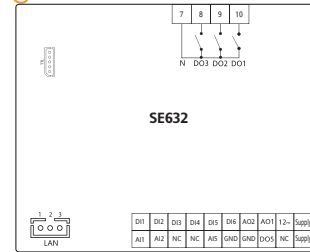
Expansion module technical specifications

	SE632	SE646	SE655
Format		4 DIN	
Power supply	12...24V~ / 24V=	12...24V~	12...24V~ / 24V=
Relay digital outputs	3x2A 230V~	4x2A 230V~	5x2A 230V~
Analogue outputs	6	1 x 2A 230V~ TRIAC	-
		2 x Open Collector PPM/PWM	
		2 x 0-10V	
		1x4..20mA / 0...20mA	
O.C. digital outputs	1	1 x Open Collector PWM	
Digital inputs	6	6 voltage FREE	
Analogue inputs		3 x NTC / D.I.	
		2 x NTC / D.I. 4...20 mA / 0-10V/0-5V/0-V	
Connectivity		TTL	
		LAN connection to SKP/SKW terminal or SE expansion module	

3600 wiring diagrams



Expansion module wiring diagrams



Interfaces • FREE Smart terminals



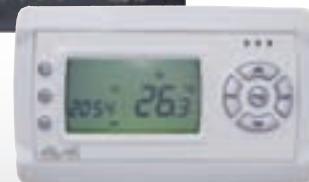
SKP10



SKW22/22L



SKP22

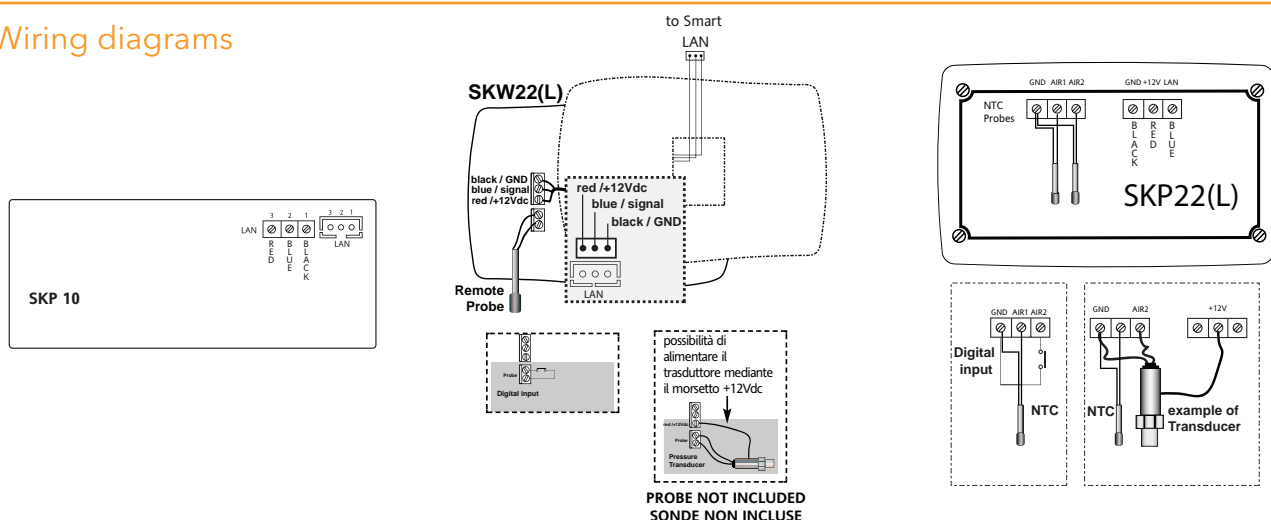


SKP22L

FREE Smart terminal technical data

	SKP10	SKW22	SKW22L	SKP22	SKP22L
Format (LxHxD)	74x32x30 mm	137.0x96.5x31.3mm		160x96x10mm	
Mounting	Panel	Wall	Wall	Panel	Panel
Front protection	IP65	-	-	-	-
Display	4-digit LED 7 segments	LCD	LCD backlit	LCD	LCD backlit
Power supply	From base	From base	From base	From base	From base
Analogue inputs	-	1 x integrated NTC		1 x remote NTC	1 x remote NTC
	-	1 x NTC/ D.I./ 4...20 mA / remote		1 x NTC/ D.I./ 4...20 mA / remote	1 x NTC/ D.I./ 4...20 mA / remote
Connectivity	LAN connection to FREE Smart				
Cables	Cable COLV000033200 included in the package	Cable COLV000033200 included in the package	Cable COLV000033200 included in the package	Cable COLV000133200 Included in the package	Cable COLV000033200 included in the package
Humidity module optional	-	KP100000 not included		-	-

Wiring diagrams



FREE Smart Mounting

SMP • SKP10

Panel-mounted installation.
Drill a 29x71 mm hole and insert the instrument; secure it with the special brackets provided.

SMC • SMD

DIN rail installation See mounting of **EVD • EVC • EVE**

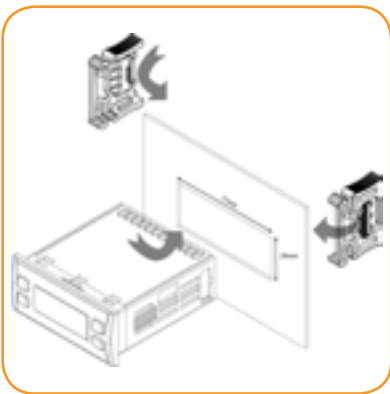
SKP22/SKP22L

See EVK mounting page 16

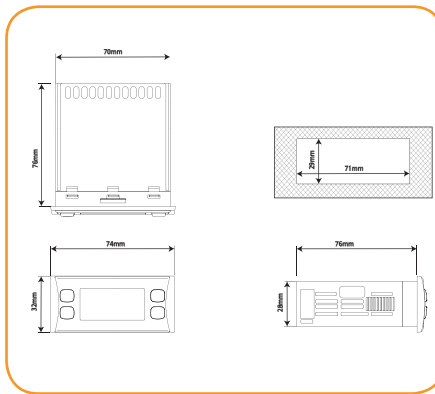
SKW22 • SKW22L

- (a) Screw connector for connection to **FREE Smart**.
- (a) JST 3-way connector for connection to **FREE Smart**.
The connector is inside the front keypad which is accessed by removing the cover (use a screwdriver or similar). The cables must pass through the hole in the centre of the rear. Make sure that power supply is of the correct voltage for the instrument.
If the device is fitted on a metal panel, the panel must be earthed.

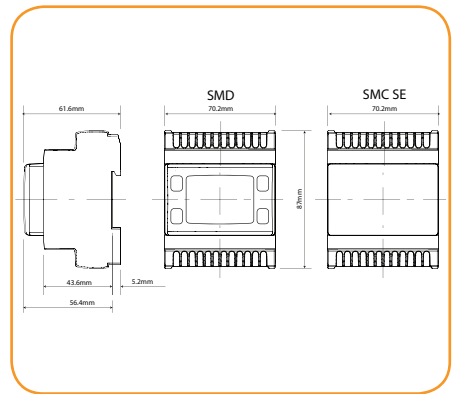
SMP - SKP10 mounting



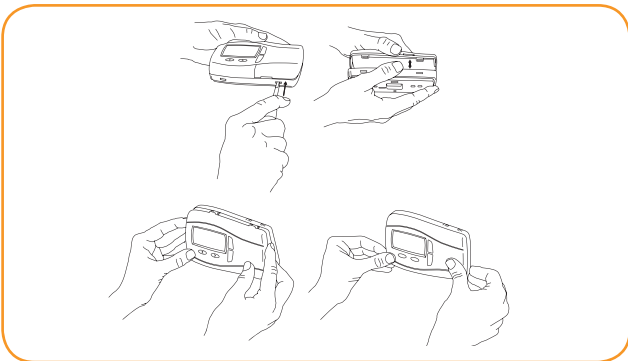
SMP - SKP10 dimensions



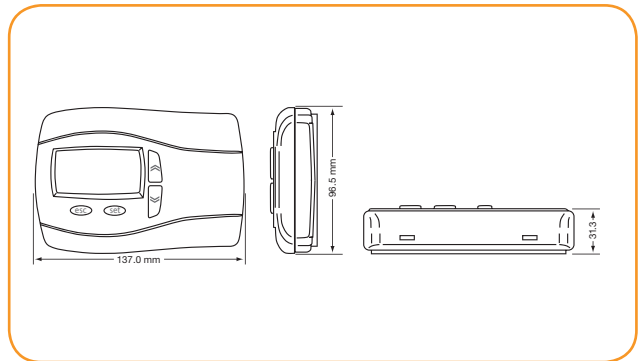
SMC - SMD mounting



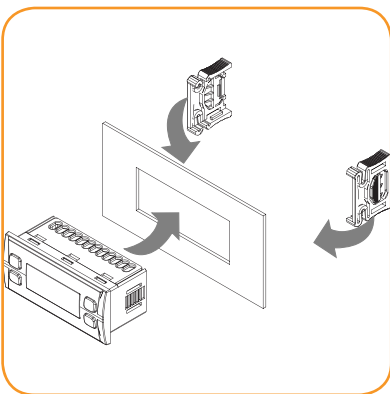
SKW22 / SKW22L mounting



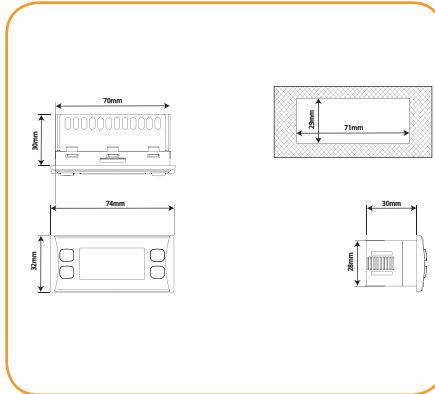
SKW22 / SKW22L dimensions



SKP10 mounting



SKP10 dimensions



FREE Evolution models



The models are available in the 8 DIN rail-mounting version (**EVD** with display, **EVC** with no display) with removable screw terminals for quick and easy installation.

Eliwell supplies models with relay or SSR outputs.

Each model (**EVD**, **EVC**) can be connected to 12 expansion modules (**EVE**) via CANOpen or RS485 serial.

All inputs and outputs are independent and configurable, meaning they can be adapted to fit any system.

Model	Part Number	Relay outputs (*)	SSR outputs (§)	Analogue outputs (**)	Digital inputs (**)	Digital inputs (***)	Analogue inputs (**)	Integrated RS485 / MPBUS
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FREE Evolution with display • /C indicates that there is an RTC - Real Time Clock • CANOpen integrated as standard

	EVD7500/C/U	EVD7500060B00	7	-	5	8	1	6	RS485
	EVD7500/C	EVD7500010B00	7	-	5	8	1	6	RS485
	EVD75SS/C/U	EVD75SS060B00	5	2	5	8	1	6	RS485
	EVD75SS/C	EVD75SS010B00	5	2	5	8	1	6	RS485
	EVD75MP/C/U	EVD75MP060B00	7	-	5	8	1	6	MPBUS
	EVD75MP/C	EVD75MP010B00	7	-	5	8	1	6	MPBUS

FREE Evolution without display • /C indicates that there is an RTC - Real Time Clock • CANOpen, integrated as standard

	EVC7500/C/U	EVC7500060B00	7	-	5	8	1	6	RS485
	EVC7500/C	EVC7500010B00	7	-	5	8	1	6	RS485
	EVC75SS/C/U	EVC75SS060B00	5	2	5	8	1	6	RS485
	EVC75SS/C	EVC75SS010B00	5	2	5	8	1	6	RS485
	EVC75MP/C/U	EVC75MP060B00	7	-	5	8	1	6	MPBUS
	EVC75MP/C	EVC75MP010B00	7	-	5	8	1	6	MPBUS

Expansion modules • RS485/CANOpen, integrated as standard

	EVE7500	EVE7500000B00	7	-	5	8	1	6	RS485
	EVE75SS	EVE75SS000B00	5	2	5	8	1	6	RS485

FREE Evolution Panel • /C indicates that there is an RTC - Real Time Clock

Model	Part number	Mounting	Dimensions	Display	Inputs (**)	Power supply	Serial	
	EVP3300/C	EVP3300010B00	Panel (°)	160x96x10mm	LCD backlit	1 NTC + 1 4..20mA	24V~/= - 48V=	CANOpen RS485 ETHERNET

Terminals • /C indicates that there is an RTC - Real Time Clock

	EVK3300/C	EVK3300010B00	Panel (°)	160x96x10mm	LCD backlit	1 NTC + 1 4..20mA	24V~/= - 48V=	CANOpen RS485 ETHERNET
	EVK1000	EVK1000000B00	Panel (°)	160x96x10mm	LCD backlit	-	From base	CANOpen

Plug - in	Part number	Output (*)	Serial	Part number	Serial	Mounting	Power supply
	EVS10R2000000	1	RS232	EVS00C4000000	CANOpen+485	2DIN	From base
	EVS00R4000000	-	RS485	EVS00ET000000	ETHERNET		
	EVS00CA000000	-	CANOpen				

(*) high voltage

(**) low voltage (SELV: SAFETY EXTRA LOW VOLTAGE)

(***) no voltage

(*) Contact the Eliwell Sales Office for wall-mounting accessories.

(§) SSR Solid State Relay

TTL as standard / O.C. Open Collector

FREE Evolution connectivity

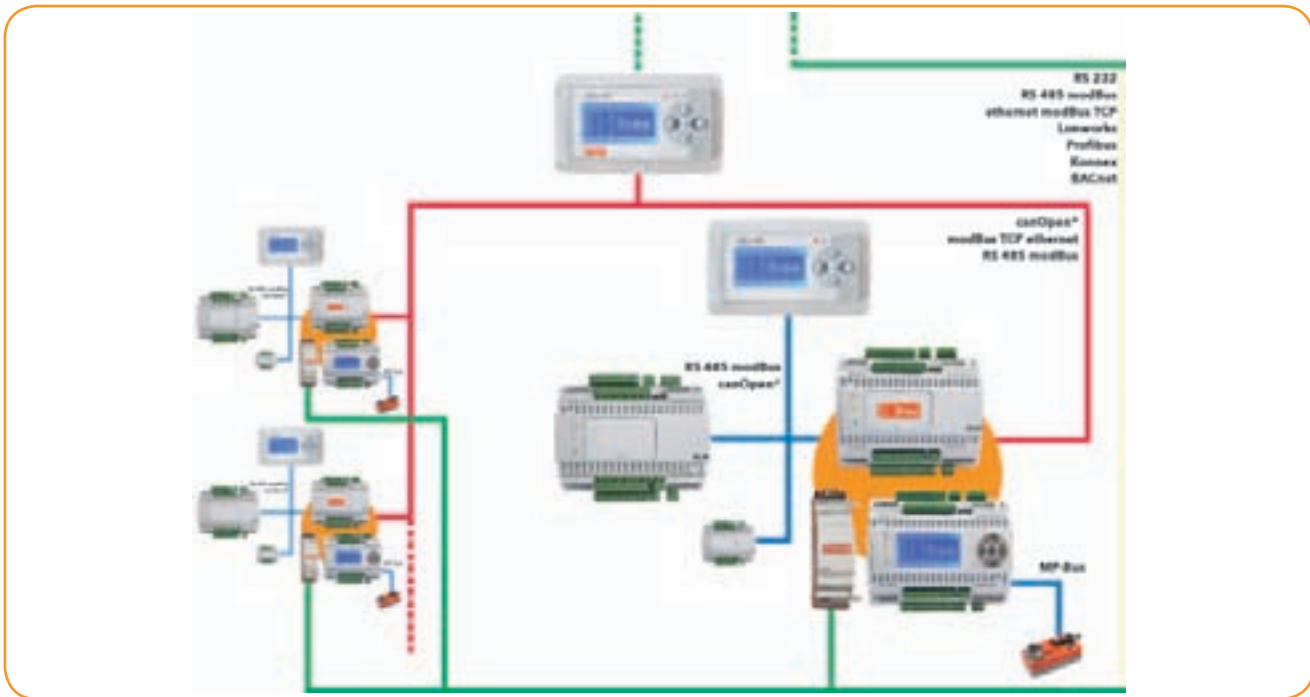
All **FREE Evolution 7500** models have an RS-485 serial and a CANOpen serial as standard. **75MP** models have an MPBUS serial instead of RS485.

FREE Evolution can be integrated into industrial systems, BMS and Ethernet networks through the range of plug-ins and 2DIN modules that connect quickly and intuitively to the main **EVD/EVC** module.

The various communication protocols make it possible to access all resources to be controlled, thereby guaranteeing full system control.

Each **FREE Evolution** model can be connected to up to two terminals to view the integrated machine display.

Using the RS485 network, a **FREE Smart** acting as a Slave can be connected in a network in which **FREE Evolution** acts as master.



FREE Evolution Update Function

USB Host		
USB → ← FREE		
direction	→	←
Data downloading	→	←
Parameter map	✓	✓
IEC application	✓	-
HMI application	✓	-
Data archive	-	-
BIOS	✓	-

USB device		
PC → ← FREE		
direction	→	←
Data downloading	→	←
Parameter map	-	-
IEC application	✓	✓
HMI application	✓	✓
Data archive	✓	✓
BIOS	-	-

USB-RS485		
USB-CANOpen		
ETHERNET		
PC → ← FREE		
direction	→	←
Data downloading	→	←
Parameter map	✓	✓
IEC application	✓	-
HMI application	✓	-
Data archive	-	-
BIOS	✓	-

✓ available

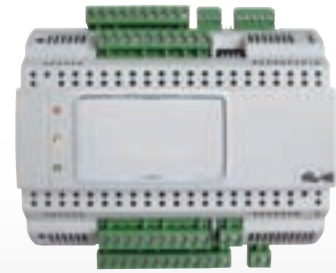
EVD • EVC • EVE 7500 / 75SS / 75MP



EVD



EVC

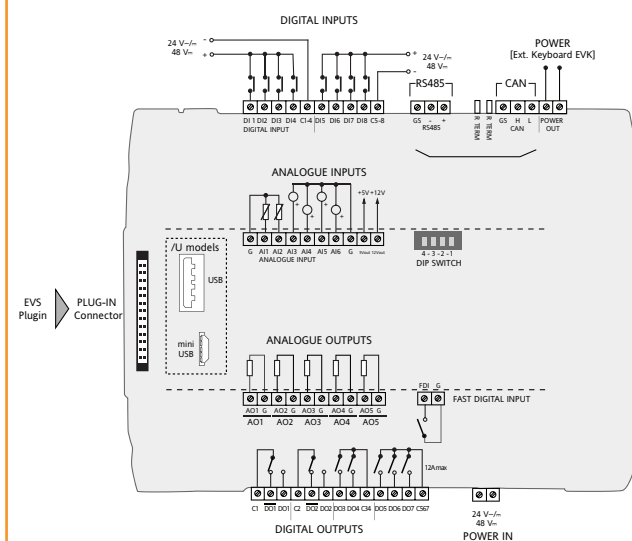


EVE

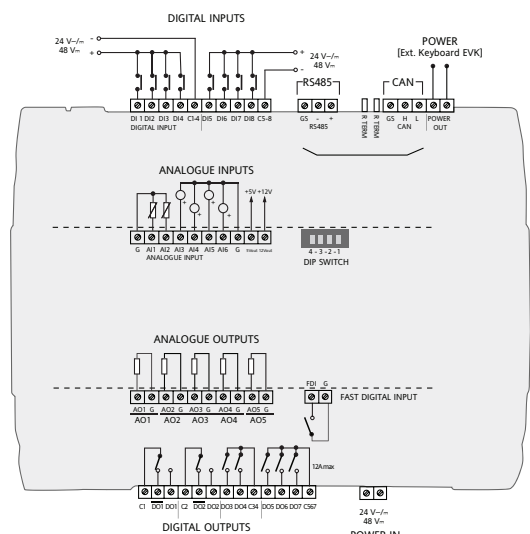
FREE Evolution EVD EVC EVE technical data

	EVD	EVC	EVE
Format		8 DIN	
Display	128x64 pixel graphic LCD backlit	-	-
Power supply		24V~/~ - 48V~	
Digital outputs 7500 75MP	7	2 x 8A, 5 x 5A 230V~	
Digital outputs 75SS	7	2 x 8A, 3 x 5A 230V~ relay outputs 2 x 1A 230V~ SSR outputs	
Analogue outputs	5	5 x 0-10V / 4..20mA configurable outputs	
Digital inputs	9	8 low voltage (SELV) analogue outputs 1 voltage free	
Analogue inputs	6	2 x NTC 103AT / NTC NK103 / DI 4 x NTC 103AT / NTC NK103 / DI / PT1000/4..20 mA /0-10V/0-5V CANOpen	
Connectivity	/ U USB models only		-
	RS485 or MPBUS	RS485 or MPBUS	RS485

EVD, EVC wiring diagram



EVE wiring diagram



EVP Panel

EVK terminals



EVP3300/C



EVK3300/C



EVK1000

FREE Evolution EVP & terminals EVK technical data

	EVP3300/C	EVK3300/C	EVK1000
Format (LxhxD)		160x96x10mm	
Mounting	Panel (°)	Panel (°)	Panel (°)
Front protection	IP65	IP65	IP65
Display	LCD 128x64px Backlit	LCD 128x64px Backlit	LCD 128x64px Backlit
Power supply	24V~/~ - 48V~	24V~/~ - 48V~	From base
Analogue inputs	1 x remote NTC	1 x remote NTC	-
	1 x remote 4...20 mA	1 x remote 4...20 mA	-
Connectivity	CANOpen RS485 ETHERNET	CANOpen RS485 ETHERNET	CANOpen
Buzzer	YES	YES	YES

(*) Contact the Eliwell Sales Office for wall-mounting accessories.



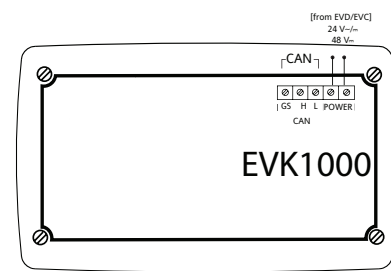
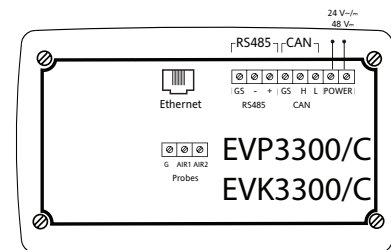
EVP Panel and EVK terminals have all a graphic display

EVP3300/C is a complete programmable controller and can be programmed in the same way as EVD and EVC.

EVK3300/C is fully programmable for developing customised menus with **User Interface**.

EVK1000 upload menus from **EVD/EVC**.

EVK EVP wiring diagrams



Accessories










In association with **FREE Smart** and **FREE Evolution**, Eliwell supplies a wide range of accessories, from the protected transformer to IP68 temperature probes, pressure/ratiometric transducers and pressure switches.

Single-phase (with a current from 2 to 9A) and three-phase fan modules are also available.

The connection of ratiometric pressure sensors, external modules (e.g. fan modules) and terminals does not require the use of any other serial interfaces.

Accessory	Part number	Description
FREE Evolution Adapters only 	SAR0RA00X701	USB/485 MINI KIT adapter
FREE Evolution Adapters only 	EVA00USCA0000	USB/CAN adapter
FREE Smart cabling only(**) 	COLV0000E0100	Wiring for I/O connection low voltage SELV(°)
	COLV0000035100	RS-485 wiring
	COLV000042100	AO3-4-5(°) wiring (connector + 1m cables)
FREE Smart MFK only 	MFK100T000000	Programming key to upload/download parameters, alarm log, applications
FREE Smart interface modules only 	DMI1003002000	DMI100-3 Manufacturer
FREE Smart connectivity only 	WA0ET00X700	WebAdapter BusAdapter150 TTL-RS485
	BA10000R3700	RadioAdapter TTL/WIRELESS 802.15.4
Demo Case 	VAL00031K VAL00033K	Demo Case FREE Smart FREE Evolution

Accessory	Part number	Description
Temperature probes (*) 	SN691150	NTC 103AT probe, 1.5m (plastic cover, 2-wire cable)
	SN8T6H1502	NTC probe 5X20 1.5m TPE IP68
	SN8T6A1502	NTC probe 6X40 1.5m TPE STEEL IP68
	SN8T6N1502	NTC probe 6X50 1.5m TPE STEEL IP68
	FREE Evolution SN8D6L4002	NTC probe 4m Extended Range IP65
	FREE Evolution SN9S0A2500	PT1000 probe 6x40 2.5m SILICONE
Transformer 	FREE Smart TF411205	230V~/12V 6VA (protected)
	TF411210	230V~/12V 6VA (protected)
Transformer 	FREE Evolution TF111202	230V~/24V 25VA
	TF111205 DIN-rail mounted	230V~/24V 35VA N.B.: cable must be no longer than 10m.
Pressure transducers 	male female TD220050° TD320050° TD240050* TD340050*	EWPA050, 4..20mA/0..30bar IP54°/IP67*;
	male female TD220007° TD320007° TD240007* TD340007*	EWPA007, 4..20mA/-0.5..7bar IP54°/IP67*;
Ratiometric transducers 	Female connector TD400010	EWPA 010 R 0/5V 0/50 BAR
	Female connector TD400030	EWPA 030 R 0/5V 0/30 BAR
	Female connector TD400050	EWPA 050 R 0/5V 0/50 BAR
Expansion module EXP11 	MW320100	230V 10A expansion module with DIN rail-mounted base
Fan modules 	MW991012	CFS05 TANDEM TRIAC 5+5A 230V
	Various p/n's available	CFS Single-phase speed regulators for currents from 2A to 9A

(*) Various lengths can be requested.

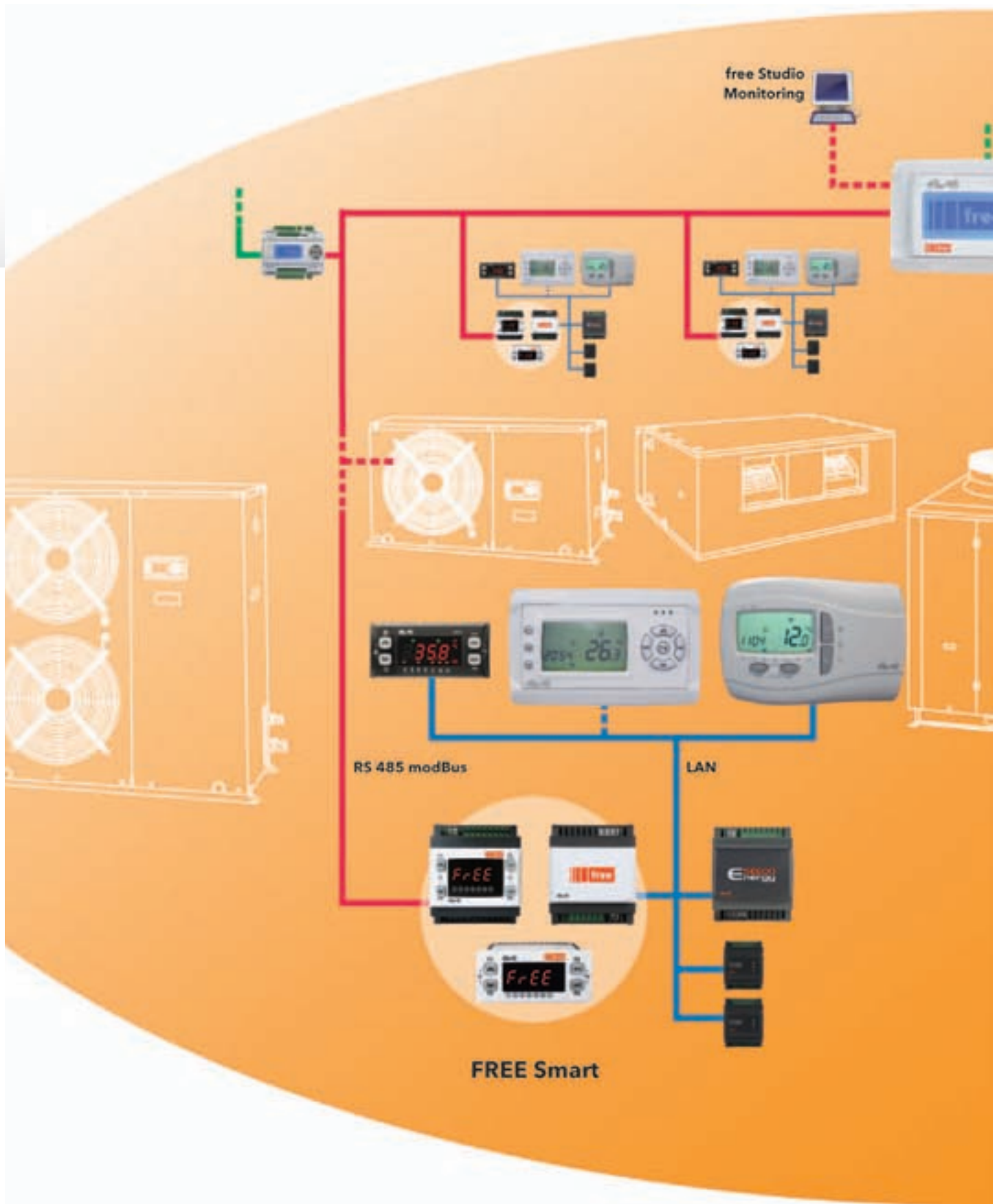
(**) Cables are not required if these are made directly by the manufacturer.

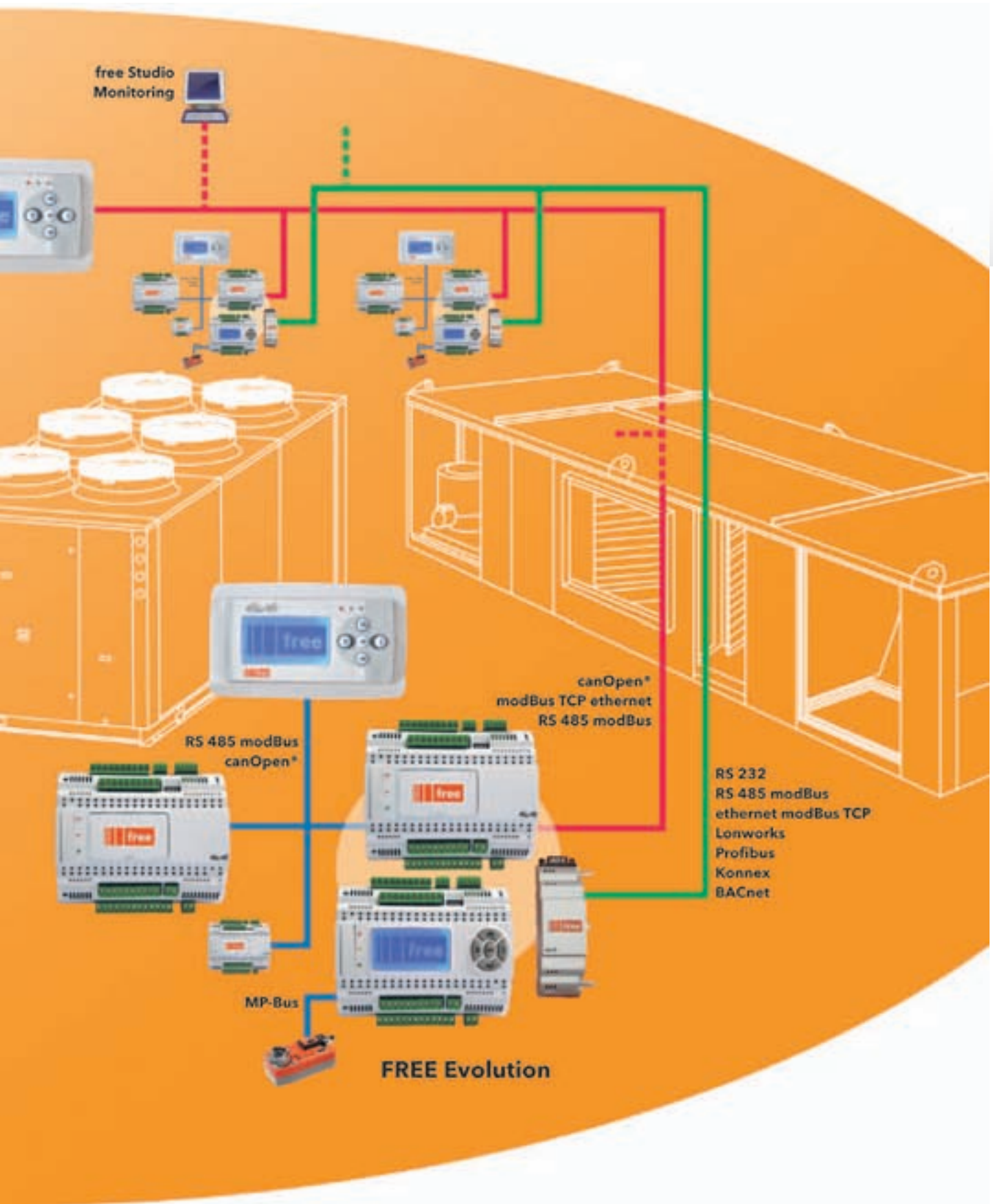
Check availability of p/n's with the Eliwell Sales Department.

N.B.: Photographs are for illustration purposes only.

The dimensions shown in the figures are not to scale.

FREE Smart





eliwell

ISO 9001



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