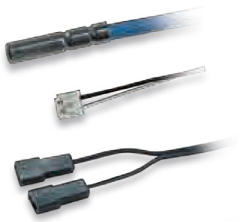
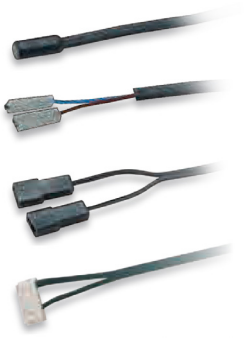
Probes

COPELAND

Probes

NTC probes

The probes with NTC thermistor are designed for applications where high accuracy and the short responce time are important. The probes pass several tests, this is why we guarantee a very high reliability.

Probe	Description	Cable	Temp. range	
NS6	General purpose, resinated, IP67, inox steel cap "dimension Ø6x30mm"	PVC 1,5m - 3,0m	-30÷80°C -22÷176°F	
NS6W	General purpose, resinated, IP67, with 6,3mm faston, inox steel cap "dimension Ø6x30mm", for WING K	PVC 1,5m - 3,0m	-30÷80°C -22÷176°F	
NS6S	General purpose, resinated, IP67, inox steel cap "dimension Ø6x30mm"	Silicone 1,5m - 3,0m	-40÷110°C -40÷230°F	
NS6SJ	General purpose, resinated, IP67, 2 pole connector, inox steel cap "dimension Ø6x30mm"	Silicone 1,5m - 3,0m	-40÷110°C -40÷230°F	
NS6SW	General purpose, resinated, IP67, with 6,3mm faston, inox steel cap "dimension Ø6x30mm", for WING K	Silicone 1,5m - 3,0m	-40÷110°C -40÷230°F	
NG6	General purpose, over-molded, IP67, thermoplastic cap "dimension Ø6x15mm"	Thermoplastic 1,5m - 3,0m	-40÷110°C -40÷230°F	
NG6F	General purpose, over-molded, IP67, with 2,8mm faston, thermoplastic cap "dimension Ø6x15mm", for XT11S 12Vac and 24Vac/dc	Thermoplastic 1,5m - 3,0m	-40÷110°C -40÷230°F	
NG6W	General purpose, over-molded, IP67, with 6,3mm faston, thermoplastic cap "dimension Ø6x15mm", for WING K	Thermoplastic 1,5m - 3,0m	-40÷110°C -40÷230°F	
NG6K	General purpose, over-molded, IP68, Hot Key connector, thermoplastic cap "dimension Ø6x15mm"	Thermoplastic 1,5m - 3,0m	-40÷110°C -40÷230°F	

NG6P	General purpose, over-molded, IP68, cap "dimension Ø5x20mm"	Thermoplastic 1,5m - 3,0m	-40÷110°C -40÷230°F	
NG6PJ	General purpose, over-molded, 2 pole connector, cap "dimension Ø5x20mm"			
NX6P	Thermoplastic, IP68, inox steel cap "dimension Ø6x20mm"	Thermoplastic 1,5m - 3,0m	-40÷110°C -40÷230°F	
NX6PJ	Thermoplastic, IP68, 2 pole connector, inox steel cap "dimension Ø6x20mm"			
NY6P	Thermoplastic, IP68, inox steel cap "dimension Ø6x50mm"	Thermoplastic 1,5m - 3,0m	-40÷110°C -40÷230°F	
NY6PJ	Thermoplastic, IP68, 2 pole connector, inox steel cap "dimension Ø6x50mm"			
NP4-67	Pipemount fitting "Ø4÷Ø30mm in diameter", IP67, over-molded, copper sensor	Thermoplastic 1,5m - 3,0m	-40÷110°C -40÷230°F	
NT6-67	Pipemount fitting "Ø4÷Ø30mm in diameter", IP67, over-molded, thermoplastic sensor			
NT6	Pipemount fitting	PVC 1,5/2,0m	0÷80°C 32÷176°F	
N6F2	General purpose, resinated, IP67, with 2,8mm faston, double insulation, nylon cap "dimension Ø7x30mm", for XT11S 230Vac	PVC 1,5/2,0m	-30÷105°C -22÷221°F	

PTC probes

The probes with PTC thermistor are designed for both cooling and heating applications.
The temperature range is –50÷150°C (-58÷302°F).

Probe	Description	Cable	Temp. range	
S6	General purpose, resinated, IP67, inox steel cap "dimension Ø6x30mm"	PVC 1,5m – 3,0m	-30÷80°C -22÷176°F	
S6.R	Water proof, resinated, IP67, inox steel cap "dimension Ø6x40mm"	PVC 1,5m – 3,0m	-30÷80°C -22÷176°F	
S6.S	Water proof, resinated, inox steel cap "dimension Ø6x40mm"	Silicone 1,5m – 3,0m	-50÷120°C -58÷248°F	
S6.SH	Heating applications, inox steel cap "dimension Ø6x40mm"	Silicone 1,5m – 3,0m	-50÷150°C -58÷302°F	
SA6	Perforated for air, inox steel cap "dimension Ø6x30mm"	PVC 1,5m – 3,0m	0÷80°C 32÷176°F	
ST6	Pipemount fitting	PVC 1,5m – 3,0m	0÷80°C 32÷176°F	
SC5.5	Probe fixed with threaded male, inox steel cap "dimension Ø6x80mm"	PVC 1,5m – 3,0m	-30÷80°C -22÷176°F	

Pt1000 probes

Pt1000 probes are suitable for all applications where the temperature is between -50÷120°C (-58÷248°F) and it is important to maintain precision over long distances.

Probe	Description	Cable	Temp. range	
PMG5P	Thermoplastic, resinated, IP68, cap "dimension Ø5x20mm"	Thermoplastic 1,5m - 3,0m	-50÷110°C -58÷230°F	
PMP4-67	Pipemount fitting "Ø4÷Ø30mm in diameter", IP67, over-molded, copper sensor	Thermoplastic 1,5m - 3,0m	-50÷110°C -58÷230°F	
PMT6-67	Pipemount fitting "Ø4÷Ø30mm in diameter", IP67, over-molded, thermoplastic sensor	Thermoplastic 1,5m	-50÷120°C -58÷248°F	

NTC/Pt1000 product probes

The product probes with NTC or Pt1000 sensors allow the simulation and display of product temperature and manage alarms according to the temperature near the product and not the air around it. Thanks to the magnets, these probes are particularly suitable for use on shelves.

Probe	Description	Cable	Temp. range	
NGP0P	NTC sensor, thermoplastic, IP68, 100x100mm	Thermoplastic 5m	-40÷110°C -40÷230°F	
PMGP0P	Pt1000 sensor, thermoplastic, IP68, 100x100mm	Thermoplastic 5m	-50÷120°C -58÷248°F	

PTC/NTC insert probes

The insert probes with PTC or NTC sensor are suitable for applications where it is important to know the core temperature of goods. They are generally used together with cooking oven or blast chiller controllers.

Probe	Description	Cable	Temp. range	
SPC10PS	PTC sensor, plastic handle, inox steel cap "dimension Ø3,5x100mm"	Silicone 3m	-38÷80°C -36÷176°F	
NPC10PS	NTC sensor, plastic handle, inox steel cap "dimension Ø3,5x100mm"	Silicone 3m	-30÷80°C -86÷176°F	
SPC10IS	PTC sensor, plastic handle, inox steel cap "dimension Ø3,5x100mm"	Silicone 3m	-50÷120°C -58÷248°F	
NPC10IS	NTC sensor, plastic handle, inox steel cap "dimension Ø3,5x100mm"	Silicone 3m	-50÷120°C -58÷248°F	
SPC10IA	PTC sensor, plastic handle, inox steel cap "dimension Ø3,5x100mm"	Silicone for use with food 3m	-50÷120°C -58÷248°F	
NPC10IA	NTC sensor, plastic handle, inox steel cap "dimension Ø3,5x100mm"	Silicone for use with food 3m	-50÷120°C -58÷248°F	

Pt1000 thermoresistors

Thermoresistance (RTD) probes are suitable when a high precision and low response time is necessary. The operating range of the Pt100 sensor is from -70÷500°C (-94÷932°F), the precision is according to standard IEC751.

Probe	Description	Cable	Temp. range	
PT6	General purpose, 3 wires, inox steel cap "dimension Ø6x100mm"	PVC 2m	-30÷105°C -22÷221°F	
PT6.S	Protected, 3 wires, inox steel cap "dimension Ø6x100mm"	Silicone 2m	-60÷200°C -76÷392°F	
PT6.F	Protected, 3 wires, inox steel cap "dimension Ø6x100mm"	Vetrotex 2m	-60÷350°C -76÷662°F	
PT310	Compact, with male connection, 2 wires, inox steel cap "dimension Ø3x100mm"	Silicone 2m	-70÷500°C -94÷932°F	
PT315	Compact, with male connection, 2 wires, inox steel cap "dimension Ø3x150mm"	Silicone 2m	-70÷500°C -94÷932°F	

TC thermocouples

Thermcouple (TC) probes are suitable when a short response time and high shock resistance are necessary. The operating range of the TCJ sensor is from 0÷600°C (32÷1112°F) and the range of the TCK is from 0÷1150°C (32÷2102°F), the precision is according to standard IEC584-2.

Probe	Description	Temp. range	
TJ6	General purpose, protected, Fe-CO, cap "dimension Ø6x100mm", 2,0/3,0m vetrotex cable	0÷350°C 32÷662°F	
TK6	General purpose, protected, Cr-Al, cap "dimension Ø6x100mm", 2,0/3,0m vetrotex cable	0÷350°C 32÷662°F	
TJD215	DIN connector, Fe-CO, cap "dimension Ø2x150mm"	0÷600°C 32÷1112°F	
TJD320	DIN connector, Fe-CO, cap "dimension Ø3x200mm"	0÷600°C 32÷1112°F	
TKD215	DIN connector, Cr-Al, cap "dimension Ø2x150mm"	0÷1150°C 32÷2102°F	
TKD320	DIN connector, Cr-Al, cap "dimension Ø3x200mm"	0÷1150°C 32÷2102°F	
CMJ	Compensating female connector, Fe-CO, for TJD215 and TJD320	-40÷200°C -40÷392°F	
CMK	Compensating female connector, Cr-Al, for TKD215 and TKD320	-40÷200°C -40÷392°F	

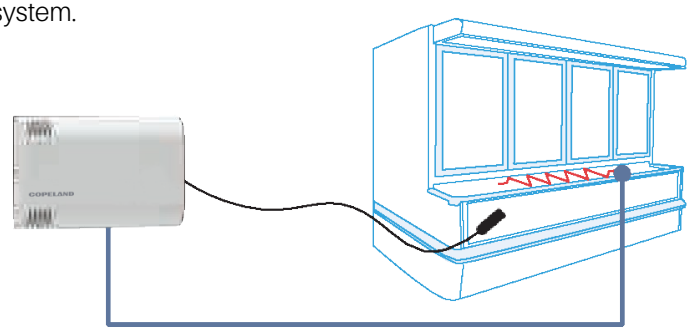
Temperature/humidity probes

Temperature/humidity probes for HVAC/R with DEW POINT calculation and RS485 output with ModBUS protocol. XH50P and XH55P are the ideal solution for anti-sweat heater control; these special probes, ideal for already existent plants, allow anti-sweat heater operation according to dew point conditions of the retail space. Through the correct calibration of Copeland algorithms, it is possible to obtain a proportional change of the operating voltage range of anti-sweat heaters, optimizing its consumption and increasing the energy saving on the average used power of the anti-sweat heaters.

- Available in 2 versions: **XH50P** (without knob), **XH55P** (with knob)
- LED to display the device status
- Wall mounting (503 box dim. compatible)
- Self extinguishing ABS housing

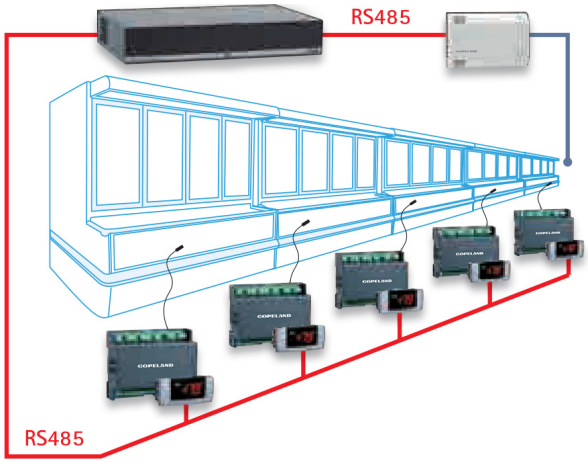
The XH50P and XH55P probes, depending on the actual needs, can be used stand-alone or in centralized applications combined with XM600 controllers for multiplexed cabinets and XWEB5000 supervising system.

Stand-alone application



- Based on the Dew Point estimate through the temperature and humidity measurement
- Thermostat control of anti-sweat heaters on a programmable value higher than the Dew Point
- Anti-sweat heaters control directly from XH

Centralized management



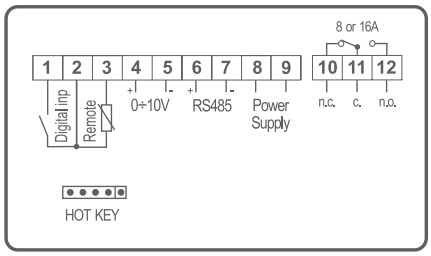
- Use of Dew Point sensors
- Management of anti-sweat heaters set point through Supervising
- Direct control of anti-sweat heaters from the counter controller
- Possibility to manage regulation parameters in groups

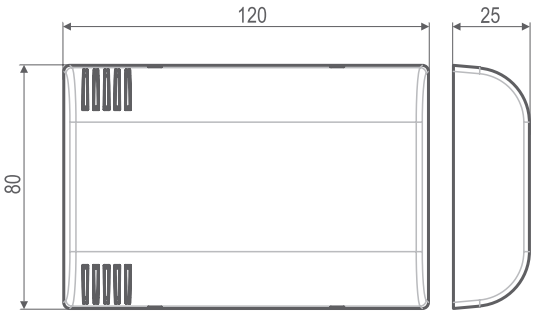
How to order

XH50/55P	X	H	5		P	-	0	N	C	D	E

C	D	E
Analog output	**Measurement unit**	**Relay output**
0 = No	**C** = °C	**1** = 8A
1 = Yes	**F** = °F	**2** = 16A

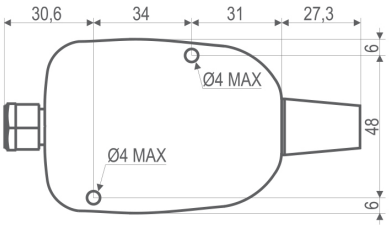
Features	XH50P	XH55P
Knob		pres
Power supply	12÷24Vac/dc - 12÷40Vdc	12÷24Vac/dc - 12÷40Vdc
Remote probe input	NTC	NTC
Digital input	free of voltage	free of voltage
Configurable relay output	8A, 16A	8A, 16A
Hot Key output	pres	pres
Serial output	RS485	RS485
Analog output	0÷10V opt	0÷10V opt





Humidity probes

XH10P and XH20P humidity probes are suitable for all those applications where it is necessary to detect and control humidity. Such applications are: refrigeration, drying processes and more. Depending on the model, they supply a standard output current (4÷20mA) or voltage (0÷10V) signal. The high accuracy, the appropriate lead time and the sensor reliability also in cases with condensation, make these probes extremely effective.



- Wall mounting
- Power consumption: 22mA max
- Protection: IP65
- Operating range: humidity 30÷90% for XH10P and 0÷99% for XH20P

How to order

XH10/20P	X	H		0	P	-	0	B	0	0	0

B

Output

0 = 4÷20mA
1 = 4÷10Vdc

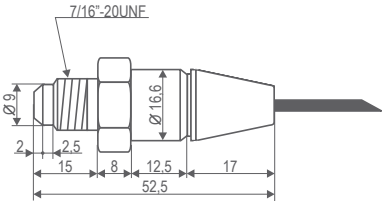
Features	XH10P		XH20P	
Power supply	9÷18Vdc	15÷35Vdc - 12÷24Vac	9÷18Vdc	15÷35Vdc - 12÷24Vac
Output	4÷20mA	0÷10Vdc	4÷20mA	0÷10Vdc
Accuracy	±5%	±5%	±3%	±3%
Operating temperature	0÷60°C (32÷140°F)	0÷60°C (32÷140°F)	0÷70°C (32÷158°F)	0÷70°C (32÷158°F)
Storage temperature	-30÷85°C (22÷185°F	-30÷85°C (22÷185°F)	-30÷85°C (22÷185°F)	-30÷85°C (22÷185°F)
Measurement range	30÷90%RH	30÷90%RH	0÷99%RH	0÷99%RH

Pressure transducers

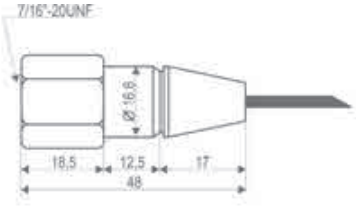
Pressure transducers supply a standard output current signal (4÷20mA). The silicon sensor is assembled in a waterproof steel housing filled with oil that optimizes stable and constant measurement with additional protection against vibrations and a duration equivalent to millions of pressure cycles. The tip of the probe allows placement in contact with ammonia and various other kinds of corrosive gases.

PP07	2 wires transducer with 4÷20mA output and measurement range –0,5÷7bar (male or female fitting)
PP11	2 wires transducer with 4÷20mA output and measurement range –0,5÷11bar (male or female fitting)
PP30	2 wires transducer with 4÷20mA output and measurement range 0÷30bar (male or female fitting)
PP50	2 wires transducer with 4÷20mA output and measurement range 0÷50bar (male or female fitting)

MALE FITTING



FEMALE FITTING



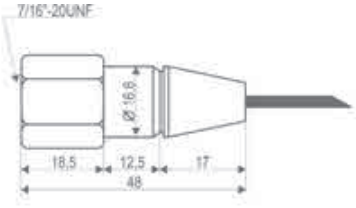
Features	
Power supply	8÷28Vdc
Output	4÷20mA
Protection	IP65
Operating temperature	-40÷135°C (-40÷275°F)
Storage temperature	-40÷135°C (-40÷275°F)
Accuracy	1% F.S.

Ratiometric pressure transducers

Pressure transducers supply a standard output ratiometric signal (0÷5V). The design is ideal for demanding HVAC and refrigeration applications where long term reliability is necessary. The electrical interface is a rugged industry-accepted connector. This device maintains accuracy through a wide range of temperatures.

PPR15	3 wires ratiometric transducer with 0÷5V output and measurement range 0÷15bar
PPR30	3 wires ratiometric transducer with 0÷5V output and measurement range 0÷35bar
PPR45	3 wires ratiometric transducer with 0÷5V output and measurement range 0÷45bar

FEMALE FITTING



Features	
Power supply	4,5÷5,5Vdc
Output	0,5÷4,5Vdc
Protection	IP65
Operating temperature	-40÷135°C (-40÷275°F)
Storage temperature	-40÷135°C (-40÷275°F)
Accuracy	1,2% F.S.

Accessories

Modem and antenna

XWEB MODEM	For XWEB, IPG115 and IPG215	Analogue serial modem PDA compatible, 56kbps (DIN Rail format) How to order: XWEBMODEM-200 (with 24Vac power supply) XWEBMODEM-400 (with 110Vac power supply) XWEBMODEM-500 (with 230Vac power supply)	
TC35-KIT	For XWEB300D/500D, XWEB500, IPG115 and IPG215	GSM modem kit containing the modem, the power supply unit, the transmitting antenna with the relevant cable and the connection to controlling system	
XW-ANT	For XWEB300D/500D and IPL500D	GSM/GPRS antenna with magnetic base and 2,5m cable	

Energy analysers

EM21D	Single/three-phase energy meter, CT-connected (5A), RS485 output. Self power supply. Dimensions: 71,7x71,7x64,6mm. DIN Rail or panel mounting. Housing: ABS self-extinguishing. Operating temperature: -25÷55°C (-13÷131°F). Relative humidity < 90%	
EM23D-1P	Single-phase energy meter, direct connected with integrated current transformers, with RS485 output. Current inputs 10(65)A, voltage 230VLN. Self power supply. Dimensions: 71,6x90x66,3mm. DIN Rail mounting. Housing: ABS self-extinguishing. Operating temperature: -25÷55°C (-13÷131°F). Relative humidity < 90%	
EM23D-3P	Three-phase energy meter, direct connected with integrated current transformers, with RS485 output. Current inputs 10(65)A, voltage 230VLN. Self power supply. Dimensions: 71,6x90x66,3mm. DIN Rail mounting. Housing: ABS self-extinguishing. Operating temperature: -25÷55°C (-13÷131°F). Relative humidity < 90%	
WM14D	Three-phase power analyser, with RS485 output. 90÷260Vac power supply. Dimensions: 107,5x90x63mm. DIN Rail and wall mounting. Housing: ABS self-extinguishing. Operating temperature: 0÷55°C (32÷131°F). Relative humidity < 90%	
WM22D	Single/three-phase power analyser 400Vac, with RS485 output. 230Vac power supply. Dimensions: 162,5x90x63mm. DIN Rail and wall mounting. Housing: ABS self-extinguishing. Operating temperature: 0÷55°C (32÷131°F). Relative humidity < 90%	

Transformers for analysers

TA100-5	Current transformer to use with EMD21D and WM14D controllers. DIN Rail, bus-bar and wall mounting. Primary winding current 100A. Secondary winding current 5A	
TA200-5	Current transformer to use with EMD21D and WM14D controllers. DIN Rail, bus-bar and wall mounting. Primary winding current 200A. Secondary winding current 5A	

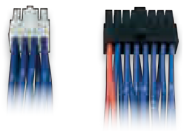
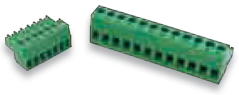
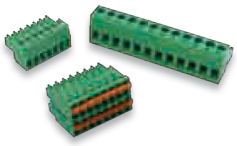
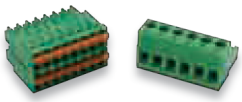
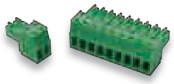
Ethernet patch cables

CAB/WEB/NET	For iPro and XWEB	Ethernet patch cable, 3m	
CAB/WEB/PC	For iPro and XWEB	Ethernet patch cross over cable, 1m	

Wiring for XC600CX

CAB/CJ15	For XC645CX, XC650CX and XC652CX	Connector with 1,5m wires for HP, DI inputs and analog outputs	
CAB/CJ30	For XC645CX, XC650CX and XC652CX	Connector with 3m wires for HP, DI inputs and analog outputs	
CW15-KIT	ForXC650CX and XC652CX	2 disconnectable female connectors, 12-14 pins with wires 1,5m	
CW25-KIT	ForXC650CX and XC652CX	2 disconnectable female connectors, 12-14 pins with wires 2,5m	
CWC15-KIT	For XC645CX	2 disconnectable female connectors, 6-14 pins with wires 1,5m, for models with internal triac	
CWC30-KIT	For XC645CX	2 disconnectable female connectors, 6-14 pins with wires 3m, for models with internal triac	

Wiring for XEV and iPro

DWXEV30	For XEV20D	1 disconnectable female connector, 12 pins with wires 3m	
DWS30-KIT	For IPG108D and IPG108E	2 disconnectable female connectors, 12-16 pins with wires 3m	
DWEX306-30KIT	For IPX306D	2 disconnectable female connectors, 10-16 pins with wires 3m	
DWB30-KIT	ForIPG115D	3+3 disconnectable female connectors, 6-8-10 pins and 10-16-22 pins with wires 3m	
DWEX60-30KIT	For IPX106D	1+2 disconnectable female connectors, 8 and 10-16 pins with wires 3m	
DWX115-30KIT	For IPX115D	3+3 disconnectable female connectors, 6-8-10 pins and 10-16-22 pins with wires 3m	
DWEX70-30KIT	For IPX125D	5+3 disconnectable female connectors, 6-6-8-8-10 pins and 10-16-22 pins with wires 3m	
IP-FC108	ForIPG108D and IPG108E	1+1 screw female connectors, 7 and 12 pins	
IP-FC208	For IPG208D, IPG208E and IPR208D	1+1 screw female connectors, 7 and 12 pins and 2 bayonet female connectors 12-16 pins	
IP-FC215CP	ForIPG215D, IPG215F and IPR215D	6 screw female connectors, 2-3(x2)-6-7-8 pins and 3 bayonet female connectors 10-16-22 pins	
IP-FCEX60	For IPX206D	1 screw female connector, 12 pins and 2 bayonet female connectors 10-16 pins	
IP-FCX215	For IPX215D	6 screw female connectors, 2-3(x2)-6-7-8 pins and 3 bayonet female connectors 10-16-22 pins	
IP-FCEX70	For IPX225D	9 screw female connectors, 2-3(x3)-5-6(x2)-7-8 pins and 3 bayonet female connectors 10-16-22 pins	
IP-FC500	For IPL500D	2 screw female connectors 2-9 pins	

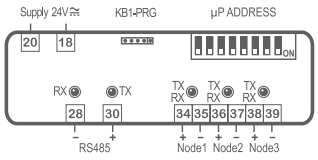
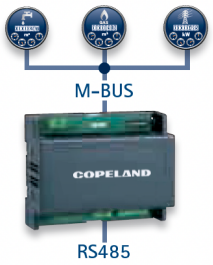
Programming tool

WIZMATE PROG-TOOL KIT	Programming kit made up of CD and DIN RAIL module (PROG-TOOL) with connections for Hot Key and RS485 for Copeland instruments; it allows the user to connect controllers to a PC running Windows 2000/XP OS. The CD-rom includes: WIZMATE (to program an instrument or a Hot Key).The Kit includes: the CAB/PTK2 wire for DIN module instrument connection, the CAB/PTK485 wire for DIN module RS485 (built-in) instrument connection, the RS232-USB-CONV converter for PC connections How to order: WIZMATE PROG-TOOL KIT 110V (with 110Vac power supply) WIZMATE PROG-TOOL KIT 230V (with 230Vac power supply)	
XJ485USB-KIT	The USB to RS485 serial converter (2 wires) is the perfect choice to interface any computer, equipped with WIZMATE® software and a USB port, to a network of instruments. XJ485USB is only 78x40x22mm and supports different communication speeds in the range from 300 to 19200bps. The kit includes the USB cable type A-B, 1,5m and a USB with the drivers for the main operative systems (Microsoft Windows, Linux, MAC OS) and a WIZMATE® software version	

Programming keys

HOT KEY	Key for a quick and easy Copeland's controllers programming. Dimensions 0,8x16x46mm	
HOT KEY 128	Key for a quick and easy XB570L controller programming. Dimensions 0,8x16x46mm	
VISOKEY	Programming key for Visograph keyboard. Dimensions 0,8x16x46mm	
PROG KEY	Programming key for firmware update. Dimensions 0,8x16x46mm	

Gateway for M-Bus meters

i-METER	M-Bus - ModBUS-RTU Slave protocol converter, used to centralize and read the consumption data of the energy meters (electricity, gas or water). i-METER is ideal for monitoring energy consumption and control of system leaks. Housing: 8 DIN Protection: IP50 Connections: screw terminals Power supply: 24 Vac/dc ± 10% N° of nodes that can be connected: max 3 Certified models: ISTA (Istameter, Domaqua, Sensonic II) 	

Remote display

X-REP	Remote display for temperature reading to be used with compatible Copeland's controllers. The front panel is IP65 and makes the installation easy wherever the controlled temperature needs to be displayed. Display: n° digits ± 3 d.p. Power supply: from the controller How to order: X-REP-00000 X-REP-10000 (for XJA, XJP)	

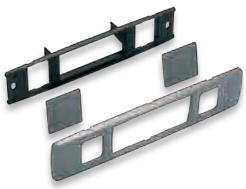
Cables for remote display

CAB/REP1	Multipolar connector for X-REP, 1m; to use with WING, XM, XB series	
CAB/REP3	Multipolar connector for X-REP, 3m; to use with WING, XM, XB series	
CAB/REP5	Multipolar connector for X-REP, 5m; to use with WING, XM, XB series	
CAB51F	Cable for X-REP, 1m; to use with XJA, XJP and PRIME CX series	
CAB52F	Cable for X-REP, 2m; to use with XJA, XJP and PRIME CX series	
CAB55F	Cable for X-REP, 5m; to use with XJA, XJP and PRIME CX series	

Printer

XB07PR	Compact thermal printer designed for connection to the XB570L controller. It provides a hard copy print out of the cycles. Paper width 58mm. EASYLOCK fixing system that allows to adapt the printer to the panel thickness without further supports. Operating Voltage range: 3.5÷8V. Dimensions: 85.5x85x55mm	

Adapters

C-BOX	Wall adapter for C and CX format controllers, IP55, dimensions: 108x108x90mm	
C-BOX2	Wall adapter for C and CX format controllers, IP55, dimensions: 170x105x82mm	
VS-BOX	Wall adapter for VS format controllers, IP55, dimensions: 135x74x72mm	
VS-BOX2	Wall adapter for VS format controllers, IP55, dimensions: 170x105x82mm	
V-KIT/W	Wall adapter for vertical keyboards, IP55, dimensions: 100x64x43mm, white colour	
V-KIT/B	Wall adapter for vertical keyboards, IP55, dimensions: 100x64x43mm, black colour	
FA64	Frame adapter for smaller 31x64mm models to fit larger 32x74mm instrument cut outs	
FA/CX	Multifunction frame adapter from L to CX format controllers with the possibility to mount up to 2 CXLS light switches	

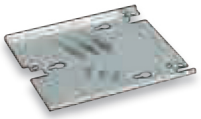
Filters

FT-IL	Inductive load filter 0,1µF/100Ohm 250V	
FT-PW	Line filter	

Gaskets and protections

MDP/CX	Plastic protection for C and CX formats against dripping on terminal blocks	
RG-C	Front panel rubber gasket for C format, IP65 mounting	
RG-L	Front panel rubber gasket for L format (STANDARD), IP65 mounting	
RG-LX	Front panel rubber gasket for L format (INOX), IP65 mounting	
RG-V	Front panel rubber gasket for V format, IP65 mounting	
PG-L	Plastic multipurpose protection for L format, IP65	

Fixing systems

PM-WL	Patented fixing system (Design Patent: UAMI n. 001851916-0001) for a simple and easy to mount solution suitable for any metallic flat surface for WING-L INOX and BACK-PANEL controllers with polycarbonate. The kit is composed of one adhesive bracket and counter plastic bracket	
PM-WLT	Patented fixing system (Design Patent: UAMI n. 001851916-0001) for a simple and easy to mount solution suitable for any metallic flat surface for WING-L TOUCH controllers. The kit is composed of one adhesive bracket and counter plastic bracket	
XW-WA	Wall mounting bracket for XWEB500	

Transformers

TF3	The TF3 3VA model is available in the following versions: 230/12Vac, 110/12Vac and 24/12Vac. Others models with internal thermofuse (130°C) and UL, CSA, VDE approval are available	
TF5	The TF5 5VA model is available in the following versions: 230/12Vac, 110/12Vac and 24/12Vac	
TF10	The TF10 10VA model is available in the following versions: 230/12Vac, 110/12Vac and 24/12Vac	
TF10D	The TF10D (DIN Rail mounting) 10VA model is available in the following versions: 230/24Vac and 110/24Vac. 2 DIN Rail format	
TF20D	The TF20D (DIN Rail mounting) 20VA model is available in the following versions: 230/24Vac and 110/24Vac. 3 DIN Rail format	
TF40D	The TF40D (DIN Rail mounting) 40VA model is available in the following versions: 230/24Vac and 110/24Vac. 4 DIN Rail format	

Light switches

LS-R	Red light switch 16A/250Vac	
LS-G	Green light switch 16A/250Vac	
LS-Y	Yellow light switch 16A/250Vac	
CXLS-R	Red light switch 16A/250Vac for FA/CX	
CXLS-G	Green light switch 16A/250Vac for FA/CX	
CXLS-Y	Yellow light switch 16A/250Vac for FA/CX	
WLS-R	Red light switch 16A/250Vac for WING Series	
WLS-G	Green light switch 16A/250Vac for WING Series	
WLS-Y	Yellow light switch 16A/250Vac for WING Series	

Cables

CAB/KB11	1m cable to connect the keyboard and the XEV driver or the XJA-XJP-XJR modules	
CAB/USB10	USB extended cable, 1m with plastic cap for XW737K and XW777K	
CAB/HK	Adapter cable, 5 pins for Hot Key input, 0,5m for XC10CX and XC30CX	
CAB/485-TGIPG	Cable for RS485 connection with connector for TGIPG	

Connectors

XM-FC16	Female connector kit, 16 pins for XM660K and XM670K	
XM-FC21	Female connector kit, 21 pins for XM669K and XM679K	
XM-FC26	Female connector kit, 26 pins for XM668K and XM678K	

Serial interface

XJ485CX	The serial interface converts the TTL output into an RS485 signal that can be used to connect the unit to the controlling and supervising system. Dimensions: 1,6x16x46mm. Multipolar connector included, 0,2m	

USB converter

USB-ETH-CONV	USB-Ethernet adapter for iPro programmable controllers in 4 DIN Rail format	

Clock board

XM-RTC	Standard clock board for XM series	

Batteries

BA6H	Battery for XJDL40D of 1.2Ah 6 hours of backup	
BA24H	Battery for XJDL40D of 4.0Ah 24 hours of back-up	

Anti-condensing kit

XV-ACK	Anti-condensing kit for XV110K and XV150K models	

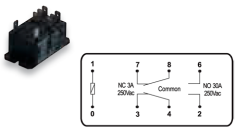
Power suppliers

PW-DL	Power supplier (24, 230Vac) for XDL01 module (with CAB/DL2 cable, 2m included) that works as a gateway between the XDL01 and Copeland instruments equipped with TTL or RS485 serial output How to order: PW-DL-20000 (for 24Vac) PW-DL-50000 (for 230Vac)	
TF-TGIPG	Power supplier 24Vdc/1A for TGIPG	
PW200J	Power supplier for XJ200 modules with TTL-RS485 converter	

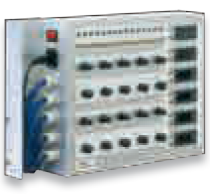
USB key

XDL-KEY	USB key for XDL01, XW737K and XW777K	

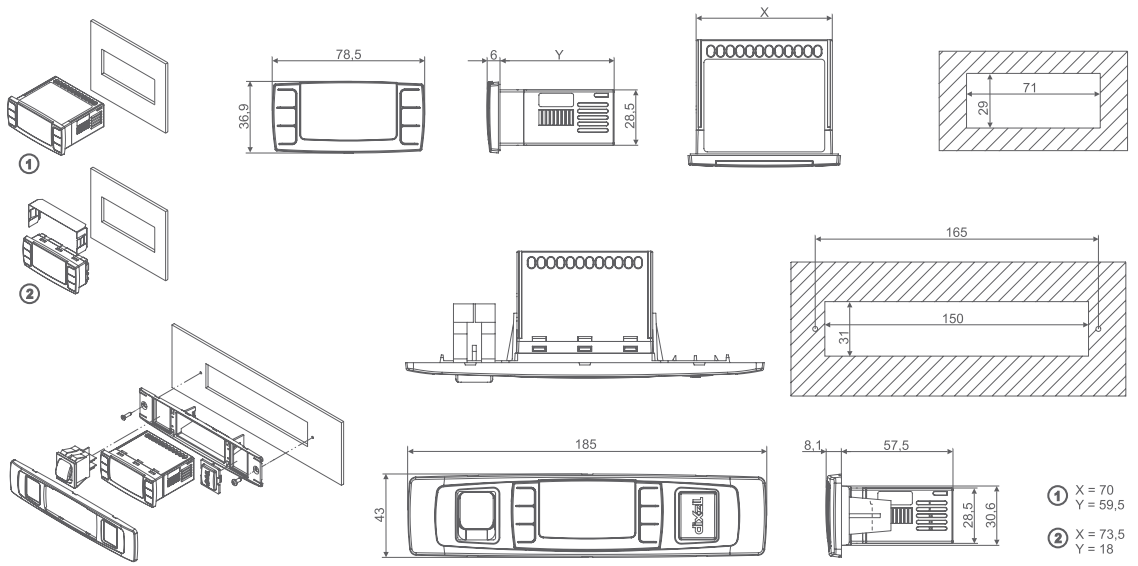
Relay

T92	Relay with a 30A current (3 HP/240Vac or 1HP/110Vac) suitable for all those applications where the load current is higher than the rating value of the relays mounted on the instruments. Contacts: 2C/O - 2N/O. Rated current: 30/3 (NO/NC). Rated/max. voltage: 250/480Vac. Rated breaking capacity: 7500VA. Nominal coil voltage: 240Vac. Nominal coil power: 1.7W/4VA. Coil contact: fast-on: 8mm. Dimensions: 30,5x52,3x34,6mm. Ambient temperature: -40÷65°C (-40÷149°F)	

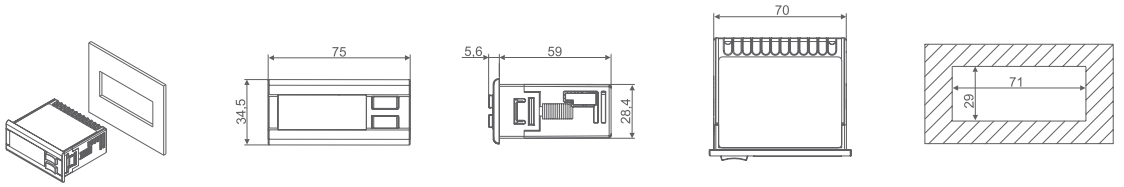
Simulators

KIT SIMULATORE IPG108	Simulator of inputs and outputs is suitable to test the applications developed for the IPG108 programmable controllers. Thanks to a resistant aluminum frame, its compact dimensions 560x340x85mm, a complete series of wirings and versatile enclosure, it can be utilized in every situation. The simulator has a 230Vac power supply	
KIT SIMULATORE IPG115D	Simulator of inputs and outputs is suitable to test the applications developed for the IPG115 programmable controllers. Thanks to a resistant aluminum frame, its compact dimensions 560x340x85mm, a complete series of wirings and versatile enclosure, it can be utilized in every situation. The simulator has a 230Vac power supply	

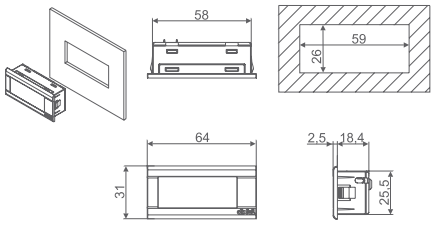
CX, keyboards *(32x74) - panel mounting*



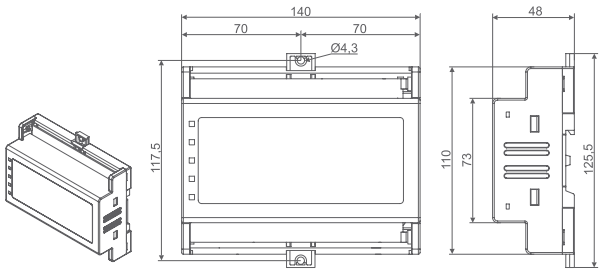
C *(32x74) - panel mounting*



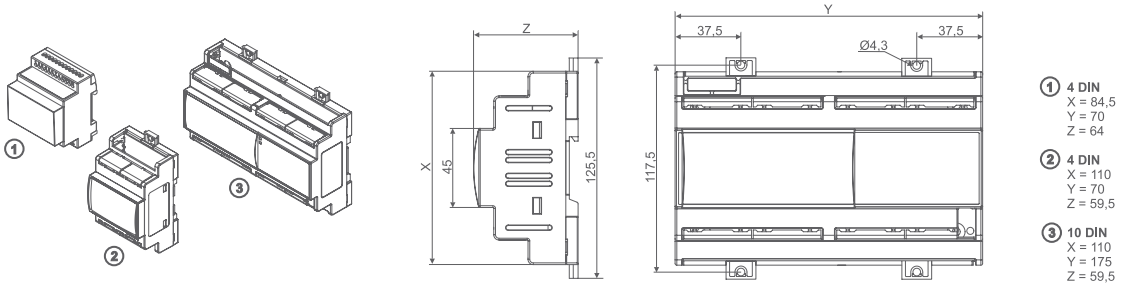
XT11S, X-REP *(31x64) - panel mounting*



8 DIN *(DIN RAIL) - wall or DIN Rail mounting*



4, 10 DIN *(DIN RAIL) - wall or DIN Rail mounting*

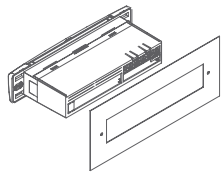


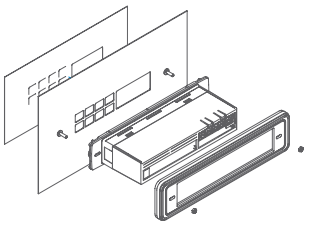
L(T), LR(T), keyboards (38x185) - panel mounting

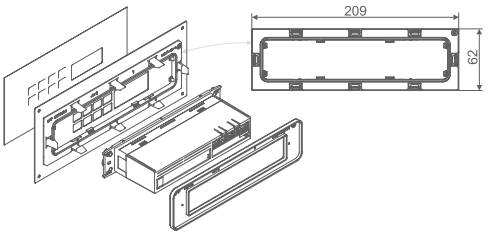
WING STANDARD, INOX, TOUCH
front mounting with screws

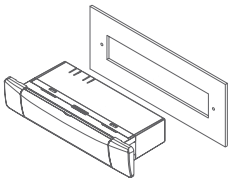
WING INOX, POLYCARBONATE
back-panel mounting with captive screws and PG-L optional

WING INOX, TOUCH, POLYCARBONATE
back-panel mounting with PM-WL(T)

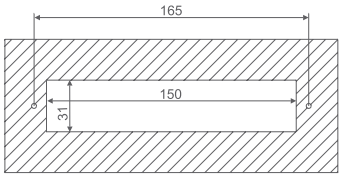


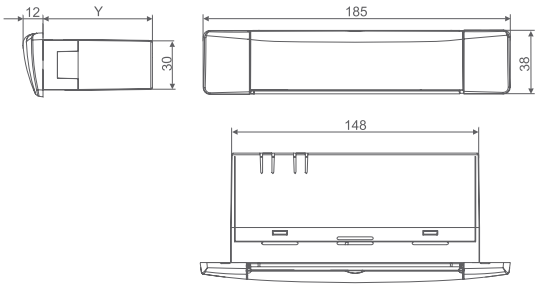


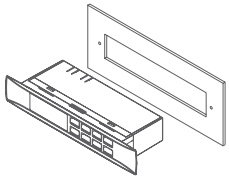




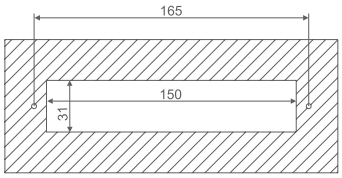
WING STANDARD

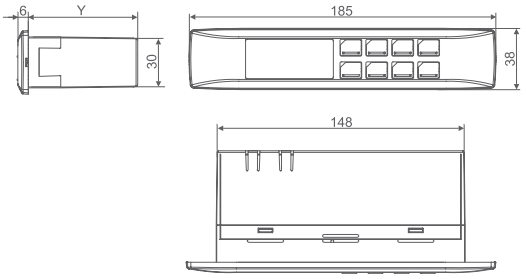


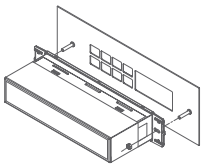




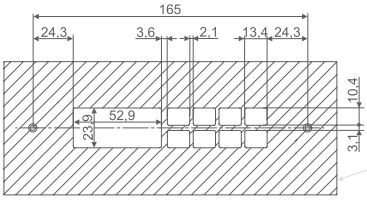
WING INOX

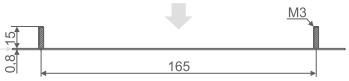


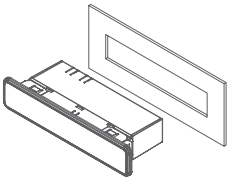




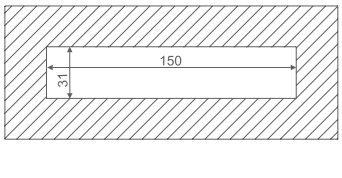
WING INOX/POLYCARBONATE

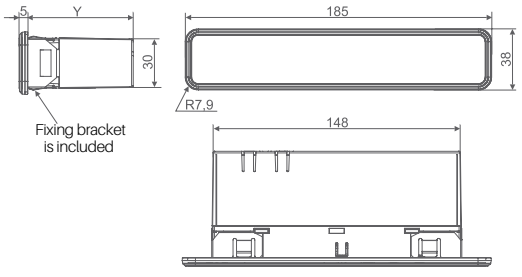


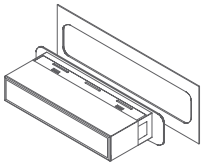


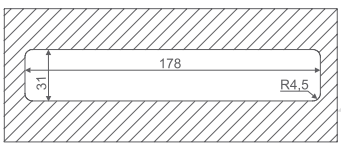


WING TOUCH





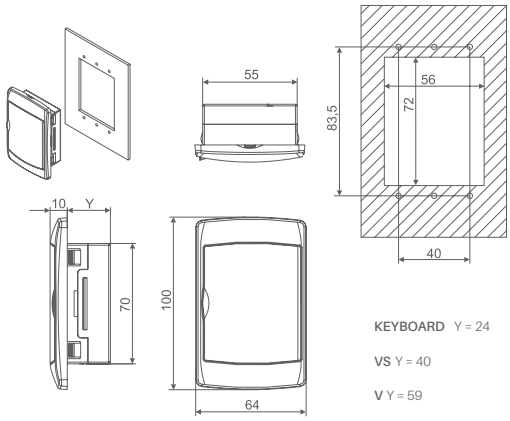




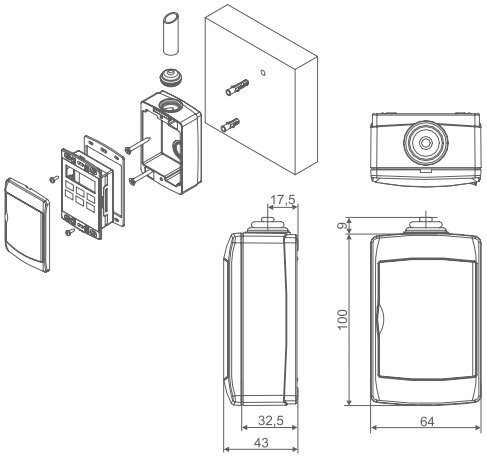
L(T) Y = 65 **LR(T)** Y = 40 **KEYBOARD** Y = 23

Size in mm

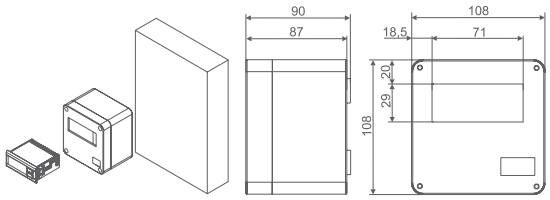
V, VS, keyboards *(100x64) - panel mounting*



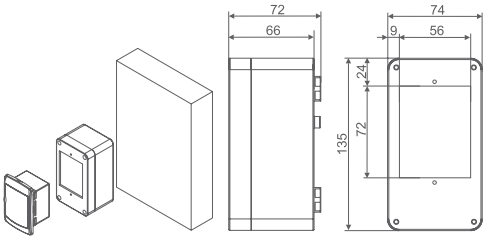
V-kit V *(100x64) - wall mounting*



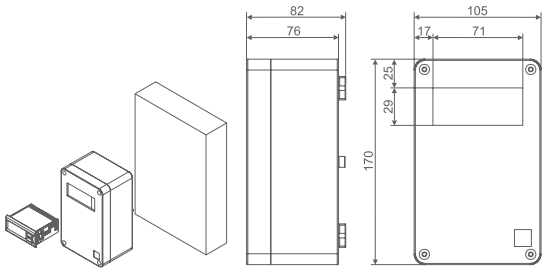
C-box *(108x108) - wall mounting*



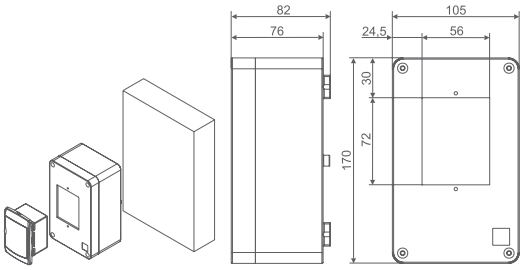
VS-box *(135x74) - wall mounting*



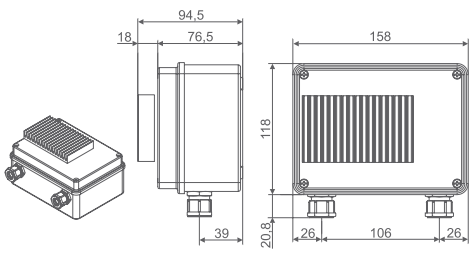
C-box2 *(170x105) - wall mounting*



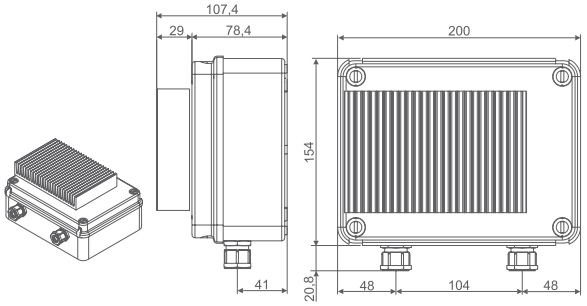
VS-box2 *(170x105) - wall mounting*



XV110K *(139x158)*

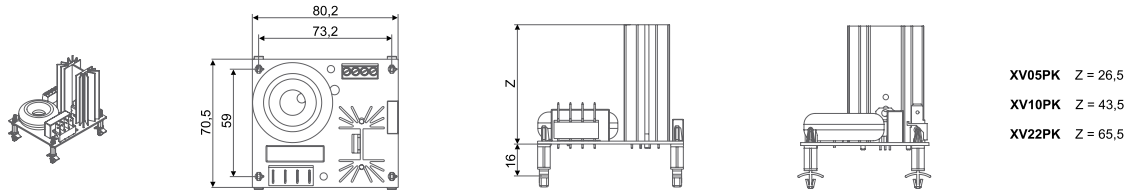


XV150K *(175x200)*



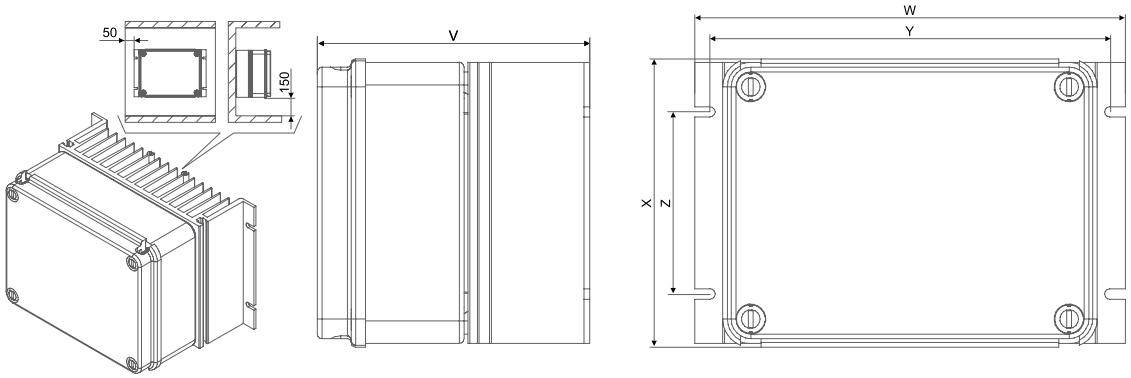
Size in mm

PK *(80x70) - panel mounting*



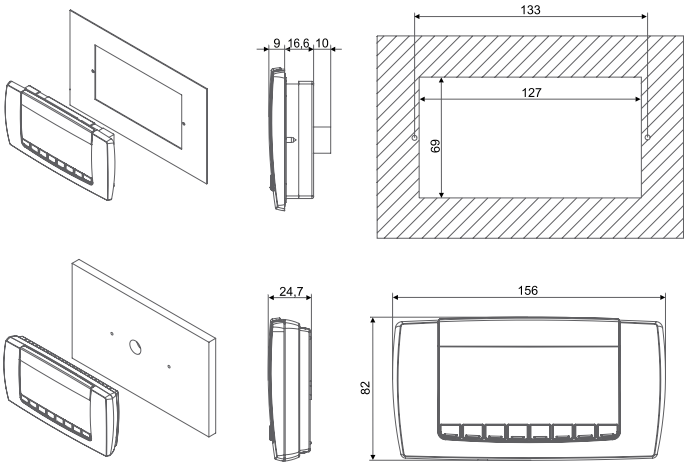
XV05PK Z = 26,5
XV10PK Z = 43,5
XV22PK Z = 65,5

XV300K *- wall mounting*

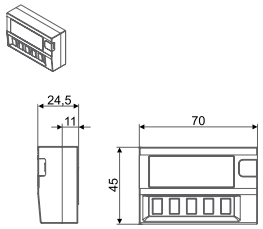


XV308K, XV310K	**XV312K**	**XV320K**	**XV328K, XV340K**
V = 150	V = 165	V = 230	V = 235
W = 230	W = 230	W = 230	W = 340
X = 165	X = 265	X = 265	X = 270
Y = 220	Y = 220	Y = 220	Y = 322
Z = 90	Z = 200	Z = 200	Z = 165

VISOGRAPH *(82x156) - wall or panel mounting*

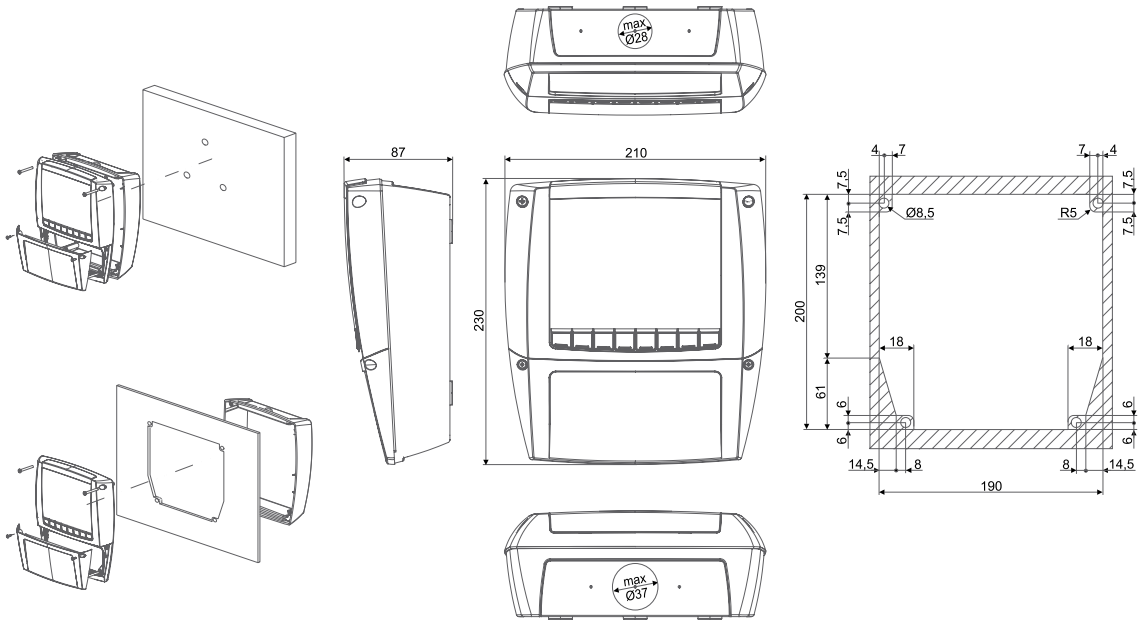


XDL *(45x70) - wall mounting*

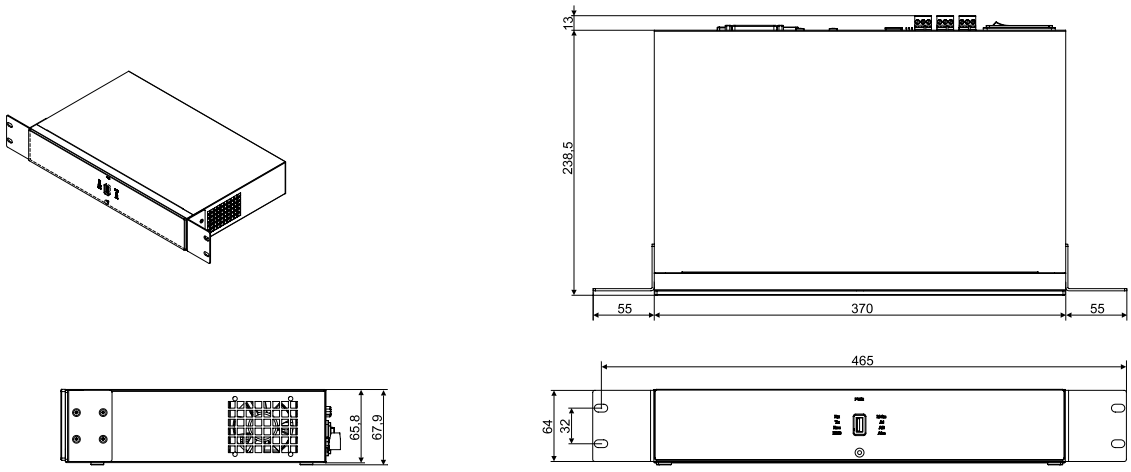


Size in mm

XLR, XLH, XWEB500 *(230x210) - wall or panel mounting*

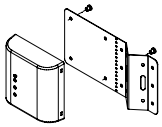


XWEB3000, XWEB5000 *(370x238) - 19" RACK mounting*

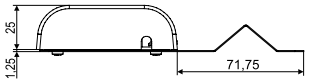


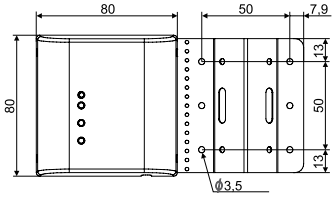
Moved "XJ200" to next page

XJ200 *(80x80) - wall or pipemount or shelves mounting*

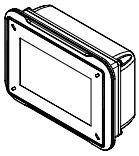


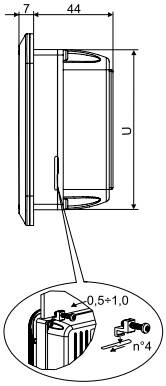
The XJ200 must be fixed vertically with the opposite bracket

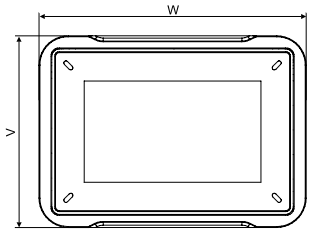


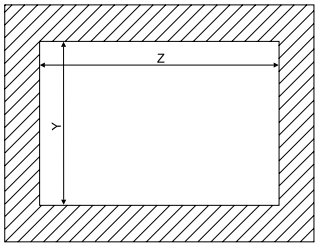


TGIPG *- panel mounting*









vers. 4,3"	**vers. 7"**	**vers. 10,4"**
U = 87	U = 126	U = 209
V = 104	V = 143	V = 228
W = 145	W = 204	W = 280
X = 128	X = 187	X = 262
Y = 89	Y = 128	Y = 211
Z = 130	Z = 189	Z = 264

Size in mm

The following technical features are ordinary for the products present in this catalogue, other main features can be found on the preliminary section of the series.

Housing	self extinguishing ABS
Front protection (with gasket, if available)	S format ➡IP65 C, CX formats and CX keyboards ➡ IP65 L(T), LR(T) formats and WING horizontal keyboards ➡ IP65 V, VS formats and WING vertical keyboards ➡ IP65 XLR, XLH formats ➡ IP65 4, 8, 10 DIN formats ➡ IP20 VG format ➡ IP65 XDL ➡ IP30 TGIPG ➡ IP65 XJ200 ➡ IP30
Accuracy	better than 1% of F.S.
Data storage	EEPROM memory
Operating temperature	0÷60°C (32÷140°F)
Storage temperature	-30÷85°C (22÷185°F)
Relative humidity	20÷85%
Resolution	0,1°C or 1°F

About Copeland

Copeland is a global leader in sustainable heating, cooling, refrigeration and industrial solutions. We help commercial, industrial, refrigeration and residential customers reduce their carbon emissions and improve energy efficiency. We address issues like climate change, growing populations, electricity demands and complex global supply chains with innovations that advance the energy transition, accelerate the adoption of climate friendly low GWP (Global Warming Potential) and natural refrigerants, and safeguard the world's most critical goods through an efficient and sustainable cold chain. We have over 18,000 employees, with feet on the ground in 50 countries - a global presence that makes it possible to serve customers wherever they are in the world and meet challenges with scale and speed. Our industry-leading brands and diversified portfolio deliver innovation and technology proven in over 200 million installations worldwide. Together, we create sustainable solutions that improve lives and protect the planet today and for future generations. For more information, visit copeland.com.

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