

CONFIGURABLE INPUT - ENERGY SAVING (ES)

The Energy Saving function allows to change the set point value as the result of the SET+ HES (parameter) sum. This function is enabled until the digital input is activated.

CONFIGURABLE INPUT - REMOTE ON/OFF (ONF)

This function allows to switch ON and OFF the instrument.

DIGITAL INPUTS POLARITY

The digital inputs polarity depends on "11P" and "12P" parameters.
CL : the digital input is activated by closing the contact.
OP : the digital input is activated by opening the contact

ANALOGUE OUTPUT 4-20 mA (OPTIONAL)

The analogue output is obtained through a 4-20mA signal proportional to the input selected in parameter "CAO". Through the analogue output the speed of fans can be regulated according to the input variable.

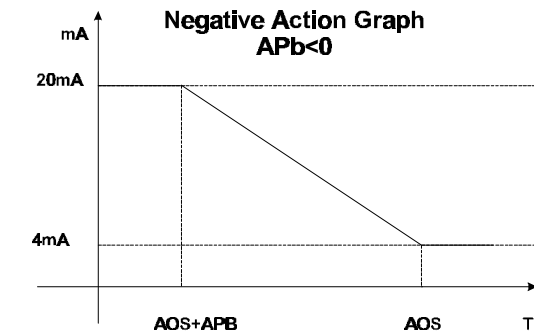
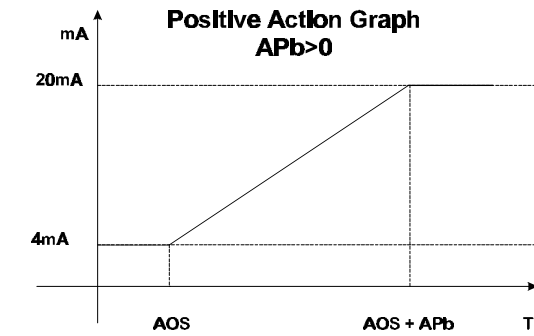
The following input types can be selected through the "CAO" parameter:

- *CAO = P1 room temperature
- *CAO = P2 evaporator temperature
- *CAO = P3 third probe temperature
- *CAO = Tr2 room temperature - evaporator temperature

To adjust the analogue output the following parameters are available:

- *AOS = Start point for analogue output
- *APb = Band width for analogue output can be either positive (direct action) and negative (inverse action).

Named T the input, the relationship input-output is given by the following charts

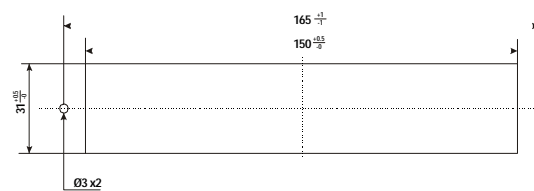


NOTE: When the defrost is in progress, the analogue output is set to the minimum value (4 mA). This condition lasts until the defrost terminates.

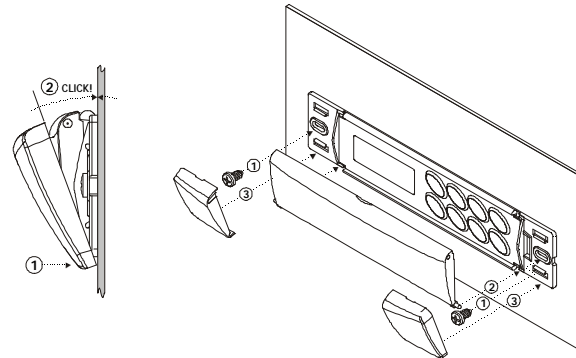
INSTALLATION AND MOUNTING

Instruments XW264L shall be mounted on vertical panel, in a 150x31 mm hole, and fixed using two screws Ø 3 x 2mm. To obtain an IP65 protection grade use the front panel rubber gasket (mod. RG-L). The temperature range allowed for correct operation is 0 - 60 °C. Avoid places subject to strong vibrations, corrosive gases, excessive dirt or humidity. The same recommendations apply to probes. Let the air circulate by the cooling holes.

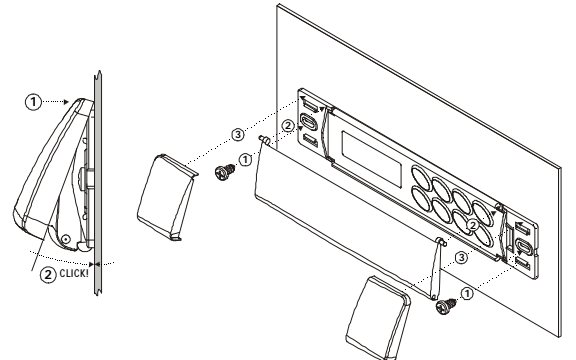
CUT OUT



MOUNTING WITH KEYBOARD COVER OPENING DOWNWARD



MOUNTING WITH KEYBOARD COVER OPENING UPWARD



ELECTRICAL CONNECTIONS

The instruments are provided with screw terminal block to connect cables with a cross section up to 2,5 mm² for the digital and analogue inputs. Relays and power supply have a Faston connection (6,3mm). Heat-resistant cables have to be used. Before connecting cables make sure the power supply complies with the instrument's requirements. Separate the probe cables from the power supply cables, from the outputs and the power connections. Do not exceed the maximum current allowed on each relay, in case of heavier loads use a suitable external relay.

N.B. Maximum current allowed for all the loads is 20A.

PROBE CONNECTIONS

The probes shall be mounted with the bulb upwards to prevent damages due to casual liquid infiltration. It is recommended to place the thermostat probe away from air streams to correctly measure the average room temperature. Place the defrost termination probes among the evaporators fins in the coldest places, where most ice is formed, far from heaters or from the warmest place during defrost, to prevent premature defrost termination.

TTL SERIAL LINE

The TTL connector allows, by means of the external module TTL/RS485, to connect the unit to a network line ModBUS-RTU compatible as the cIXEL monitoring system XJ500 (Version 3.0). The same TTL connector is used to upload and download the parameter list of the "HOT KEY". These instruments can be ordered with direct serial output RS485 (Optional).

USE OF THE PROGRAMMING "HOT KEY"

The Wing units can UPLOAD or DOWNLOAD the parameter list from its own E2 internal memory to the "Hot Key" and vice-versa.

DOWNLOAD (FROM THE "HOT KEY" TO THE INSTRUMENT)

- Turn OFF the instrument by means of the ON/OFF key, remove the TTL serial cable if present, insert the "Hot Key" and then turn the Wing ON.
- Automatically the parameter list of the "Hot Key" is downloaded into the Wing memory, the "DoL" message is blinking. After 10 seconds the instrument will restart working with the new parameters.
- Turn OFF the instrument remove the "Hot Key", plug in the TTL serial cable, then turn it ON again.

At the end of the data transfer phase the instrument displays the following messages: "end" for right programming. The instrument starts regularly with the new programming. "err" for failed programming. In this case turn the unit off and then on if you want to restart the download again or remove the "Hot key" to abort the operation.

UPLOAD (FROM THE INSTRUMENT TO THE "HOT KEY")

- Turn OFF the instrument by means of the ON/OFF key and remove the TTL serial cable if present; then turn it ON again.
- When the Wing unit is ON, insert the "Hot key" and push E key; the "uPL" message appears.
- Push "SET" key to start the UPLOAD: the "uPL" message is blinking.
- Turn OFF the instrument remove the "Hot Key", plug in the TTL serial cable, then turn it ON again.

At the end of the data transfer phase the instrument displays the following messages: "end" for right programming. "err" for failed programming. In this case push "SET" key if you want to restart the programming again or remove the not programmed "Hot key".

ALARM SIGNALS

Message	Cause	Outputs
"P1"	Thermostat probe failure	Alarm output ON; Compressor output according to parameters "COB" and "COF"
"P2"	1st Evaporator probe failure	Alarm output ON; Other outputs unchanged
"P3"	2nd Evaporator probe failure	Alarm output ON; Other outputs unchanged
"HA"	Max. temperature alarm	Alarm output ON; Other outputs unchanged
"LA"	Min. temperature alarm	Alarm output ON; Other outputs unchanged
"EE"	Data or memory failure	Alarm output ON; Other outputs unchanged
"dA"	Defrost timeout alarm	Alarm output ON; Other outputs unchanged
"dAL"	Door switch alarm	Alarm output ON; Other outputs unchanged
"EAL"	External alarm	Alarm output ON; Other outputs unchanged
"BAL"	Serious external alarm	Alarm output ON; Other outputs OFF
"PAL"	Pressure switch alarm	Alarm output ON; Other outputs OFF

The alarm message is displayed until the alarm condition is recovery. All the alarm messages are showed alternating with the room temperature except for the "P1" which is flashing. To reset the "EE" alarm and restart the normal functioning press any key, the "rSt" message is displayed for about 3s.

SILENCING BUZZER

Once the alarm signal is detected the buzzer can be silenced by pressing any key.

"EE" ALARM

The cIXEL instruments are provided with an internal check for the data integrity. Alarm "EE" flashes when a failure in the memory data occurs. In such cases the alarm output is enabled.

ALARM RECOVERY

Probe alarms : "P1" (probe1 faulty), "P2" and "P3"; they automatically stop 10s after the probe restarts normal operation. Check connections before replacing the probe. Temperature alarms "HA" and "LA" automatically stop as soon as the thermostat temperature returns to normal values or when the defrost starts. Door switch alarm "dA" stop as soon as the door is closed. External alarms "EAL", "BAL" stop as soon as the external digital input is disabled. "PAL" alarm is recovered by switching OFF the instrument.

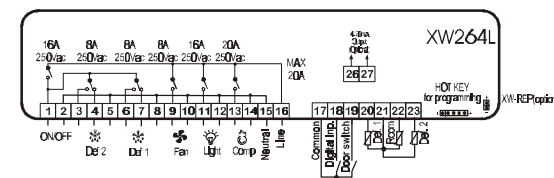
TECHNICAL DATA

- Housing: self extinguishing ABS.
- Case: facia 38x185 mm; depth 76mm
- Mounting: panel mounting in a 150x31 mm panel cut-out with two screws. Ø 3 x 2mm. Distance between the holes 165mm
- Protection: IP20.
- Frontal protection: IP65 with frontal gasket mod RG-L. (optional)
- Connections: Screw terminal block ≤ 2,5 mm² heat-resistant wiring and 6,3mm Faston; Optional disconnectable terminal blocks (max.12A)
- Power supply: 230Vac or. 110Vac ± 10%
- Power absorption: 7VA max.
- Display: 3 digits, red LED, 14,2 mm high.
- Inputs: 3 NTC probes
- Digital inputs: 2 free voltage
- Relay outputs: Total current on loads MAX. 20A
- compressor: relay SPST 20(8) A, 250Vac
- light: relay SPST 16(3) A, 250Vac (or optional relay SPST 16(3) A, special for fluorescent lights)
- fans: relay SPST 8(3) A, 250Vac
- 1st defrost: relay SPDT 8(3) A, 250Vac
- 2nd defrost: relay SPDT 8(3) A, 250Vac
- ON/OFF: SPST relay 16(3) A, 250Vac
- Other output: Alarm buzzer (Standard)
Analogue output 4-20 mA (optional)
Direct RS485 (optional)
XW-REP output for remote display (optional)

- Serial output : TTL standard
- Communication protocol: Modbus - RTU
- Data storing: on the non-volatile memory (EEPROM).
- Kind of action: 1B.
- Pollution grade: normal
- Software class: A.
- Operating temperature: 0÷60 °C.
- Storage temperature: -25÷60 °C.
- Relative humidity: 20÷85% (no condensing)
- Measuring and regulation range: NTC probe: -40÷110°C (-58÷230°F)
- Resolution: 0,1 °C or 1°C or 1 °F (selectable).
- Accuracy (ambient temp. 25°C): ±0,5 °C ±1 digit

CONNECTIONS

XW264L



DEFAULT SETTING VALUES

Label	Name	Range	Default	Level
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Label	Name	Range	Default	Level
REGULATION				
Set	Set point	LS=US	-5/23	Pr1
Hy	Differential	0,1=25,5 °C 1=45°F	2/4	Pr1
LS	Minimum set point	-50,0°C+SET -58°F+SET	-30/-22	Pr2
US	Maximum set point	SET + 110°C SET + 230°F	20/68	Pr2
OdS	Outputs activation delay at start up		1	Pr2
AC	Anti-short cycle delay		1	Pr1
CCl	Compressor ON time during fast freezing	0 ÷ 23h 50 min.	0	Pr2
COB	Compressor ON time with faulty probe		15	Pr2
COF	Compressor OFF time with faulty probe		30	Pr2
DISPLAY				
CF	Temperature measurement unit	°C ÷ °F	°C/°F	Pr2
rES	Resolution (integer/decimal point)	in ÷ de	de	Pr1
Lod	Local display	P1 ÷ Tr2	P1	Pr2
Red	Remote display	P1 ÷ Tr2	p1	Pr2
DEFROST				
tdF	Defrost type	rE, rT, in	rE	Pr1
EdF	Defrost mode	In, Sd	In	Pr2
SdF	Set point for SMART DEFROST	-30 ÷ +30°C -22 ÷ +86°F	0	Pr2
dIE	Defrost termination temperature (1° Evaporator)	-50,0÷110°C -58÷230°F	8/46	Pr1
dIS	Defrost termination temperature (2° Evaporator)	-50,0÷110°C -58÷230°F	8/46	Pr1
IdF	Interval between defrost cycles	1-120h	6	Pr1
MdF	(Maximum) length for 1° defrost		30	Pr1
MdS	(Maximum) length for 2° defrost		30	Pr1
dFd	Displaying during defrost	rt, it, SEI, dEF, dEG	it	Pr2
dAd	MAX display delay after defrost		30	Pr2
Fdt	Draining time		0	Pr2
dPO	First defrost after start up	n ÷ y	n	Pr2
dAF	Defrost delay after fast freezing		2	Pr2
FANS				
FnC	Fans operating mode	C-n, C-y, O-n, O-y	O-n	Pr2
FnD	Fans delay after defrost		10	Pr2
FSt	Fans stop temperature	-50,0÷110°C -58÷230°F	2/35	Pr2
ALARMS				
ALC	Temperature alarms configuration	rE÷Ab	rE	Pr2
ALU	MAXIMUM temperature alarm	-50,0÷110°C -58÷230°F	10/20	Pr1
ALL	minimum temperature alarm	-50,0÷110°C -58÷230°F	10/20	Pr1
AFH	Temperature alarm and fan differential	0,1=25,5 °C 1=45 °F	2/4	
ALd	Temperature alarm delay		15	Pr2
dAO	Delay of temperature alarm at start up		1,3	Pr2
EdA	Alarm delay at the end of defrost		30	Pr2
dot	Delay of temperature alarm after closing the door		15	Pr2
dOA	Open door alarm delay		15	Pr2
nPS	Pressure switch activation number		0	Pr2
ANALOGUE OUTPUT 4-20mA (Optional)				
AOS	Analogue output start point	-50,0÷110°C -58÷230°F	0/32	Pr2
APb	Analogue output band width	-50,0÷110°C -58÷230°F	0	Pr2
CAO	Input type for the analogue output	P1=Tr2	P1	Pr2
ANALOGUE INPUTS				
Ot	Thermostat probe calibration	-12,0÷12,0°C -21÷21°F	0	Pr1
OE	1st evaporator probe calibration	-12,0÷12,0°C -21÷21°F	0	Pr2
O3	2nd evaporator probe calibration	-12,0÷12,0°C -21÷21°F	0	Pr2
P2P	1st evaporator probe presence	n ÷ y	y	Pr2
P3P	2nd evaporator probe presence	n ÷ y	n	Pr2
HES	Temperature increase during the Energy Saving cycle	-30÷30°C -22÷86°F	0	Pr2
DIGITAL INPUTS				
Odc	Open door control	no, Fan, CPr, F, C	Fan	Pr2
11P	Door switch polarity	CL=OP	CL	Pr2
12P	Configurable digital input polarity	CL=OP	CL	Pr2
i2F	Digital input configuration	EAL, bAL, PAL, dFr, AUS, ES, OnF	EAL	Pr2
dId	Digital input alarm delay		5	Pr2
OTHER				
Adr	Serial address		1	Pr1
rEL	Software release	- - -	1.0	Pr2
PtB	Map code	- - -	- - -	Pr2
Prd	Probes display	Pb1=Pb3	- - -	Pr2
Pr2	Access parameter list	- - -	- - -	Pr2

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