

6 DIAGNOSTICA INTERNA

6.1 Diagnostica interna

CODICE	SIGNIFICATO
P1	Errore sonda cella Rimedi: <ul style="list-style-type: none">• verificare il tipo di sonda• verificare l'integrità della sonda• verificare il collegamento strumento-sonda• verificare la temperatura della cella Conseguenze: <ul style="list-style-type: none">• nell'EVB23 il compressore verrà acceso in modo ciclico, 10 min acceso e 10 min spento; nell'EVB33 il compressore verrà acceso
P2	Errore sonda evaporatore Rimedi: <ul style="list-style-type: none">• gli stessi del caso precedente ma relativamente alla sonda evaporatore Conseguenze: <ul style="list-style-type: none">• se il parametro P3 è impostato a 1, lo sbrinamento durerà il tempo stabilito con il parametro d3• se il parametro F0 è impostato a 1 o 2, lo strumento funzionerà come se il parametro fosse impostato a 0

Quando la causa che ha provocato l'allarme scompare, lo strumento ripristina il normale funzionamento.

7 DATI TECNICI

7.1 Dati tecnici

Contentitore: autoestinguente grigio.

Grado di protezione del frontale: IP 65.

Connessioni (usare solo conduttori in rame): morsettiere a vite (alimentazione, ingressi e uscite), connettore a 6 poli (porta seriale; su richiesta); morsettiere estraibili (alimentazione, ingressi e uscite) su rich.

Temperatura di impiego: da 0 a 55 °C (10 ... 90% di umidità relativa senza condensazione).

Alimentazione: 230 VCA, 50/60 Hz, 3 VA (approssimativi); 115 VCA o 12 VCA/CC su richiesta.

Classe di isolamento: 2.

Ingressi di misura: 2 (sonda cella e sonda evaporatore) per sonde PTC o NTC (a seconda del modello).

Ingressi digitali: 1 (multifunzione/micro porta) per contatto NA/NC (contatto pulito, 5 V 1 mA).

Campo di misura: da -50 a 150 °C per sonda PTC, da -40 a 105 °C per sonda NTC.

Risoluzione: 0,1 °C (tra -19,9 e 19,9 °C)/1 °C/1 °F

Uscite digitali: 3 relè:

• **relè compressore:** 30 A res. @ 250 VCA, 12 FLA, 72 LRA nell'EVB33; 16 A res. @ 250 VCA, 5 FLA, 30 LRA nell'EVB23 con alimentazione 12 VCA/CC; 8 A res. @ 250 VCA, 2 FLA, 12 LRA altrimenti (contatto NA)

• **relè sbrinamento:** 8 A res. @ 250 VCA, 2 FLA, 12 LRA (contatto NA nell'EVB33 con alimentazione 12 VCA/CC; contatto in scambio altrimenti)

• **relè ventilatore dell'evaporatore:** 8 A res. @ 250 VCA, 2 FLA, 12 LRA nell'EVB23 con alimentazione 12 VCA/CC; 5 A res. @ 250 VCA altrimenti (contatto NA).

La corrente massima consentita sui carichi è di 10 A.

Porta seriale: porta per la comunicazione con la chiave di programmazione; su richiesta.

ENGLISH

8 WORKING SETPOINTS AND CONFIGURATION PARAMETERS

8.1 Working setpoints

	MIN.	MAX.	U.M.	DEF.	WORKING SETPOINTS
r1	r2		°C/°F (1)	0.0	working setpoint

8.2 Configuration parameters

PARAM.	MIN.	MAX.	U.M.	DEF.	WORKING SETPOINTS
SP	r1	r2	°C/°F (1)	0.0	working setpoint

PARAM.	MIN.	MAX.	U.M.	DEF.	MEASUREMENT INPUTS
o1	-25	25	°C/°F (1)	0.0	cabinet probe offset
o2	-25	25	°C/°F (1)	0.0	evaporator probe offset

P1	0	1	---	1	decimal point Celsius degree (for the quantity to show during the normal operation, between -9.9 and 19.9 °C) 1 = YES
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P2	0	1	---	0	unit of measure temperature (2) 0 = °C 1 = °F
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P3	0	2	---	1	evaporator probe function 0 = probe not enabled 1 = defrost probe and thermostat probe for the evaporator fan 2 = thermostat probe for the evaporator fan
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PARAM.	MIN.	MAX.	U.M.	DEF.	MAIN REGULATOR
r0	0.1	15.0	°C/°F (1)	2.0	working setpoint differential
r1	-99	r2	°C/°F (1)	{3}	minimum working setpoint
r2	r1	199	°C/°F (1)	50	maximum working setpoint

PARAM.	MIN.	MAX.	U.M.	DEF.	COMPRESSOR PROTECTIONS
C0	0	199	min	0	compressor delay since you turn on the instrument

C2	0	199	min	3	minimum time the compressor remains turned off
C3	0	199	s	0	minimum time the compressor remains turned on

PARAM.	MIN.	MAX.	U.M.	DEF.	DEFROST
d0	0	99	h	8	defrost interval 0 = the defrost at intervals will never be activated

d1	0	1	---	0	kind of defrost 0 = electric defrost 1 = hot gas defrost
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d2	-99	99	°C/°F (1)	2.0	defrost cutoff temperature (only if P3 = 1)
d3	0	99	min	30	if P3 = 0 or 2, defrost duration if P3 = 1, defrost maximum duration 0 = the defrost will never be activated

d4	0	1	---	0	defrost when you turn on the instrument 1 = YES
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d5	0	199	min	0	defrost delay when you turn on the instrument (only if d4 = 1)
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d6	0	1	---	1	temperature shown during the defrost 0 = cabinet temperature 1 = if to the defrost activation the cabinet temperature is below "working setpoint + r0", at most "working setpoint + r0"; if to the defrost activation the cabinet temperature is above "working setpoint + r0", at most the cabinet temperature to the defrost activation (4)
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d7	0	15	min	2	dripping duration
dA	0	99	min	0	minimum time the compressor must be remained turned on (to the defrost activation) in order that the defrost can be activated (only if d1 = 1) (5)

ITALIANO

8 SETPOINT DI LAVORO E PARAMETRI DI CONFIGURAZIONE

8.1 Setpoint di lavoro

	MIN.	MAX.	U.M.	DEF.	SETPOINT DI LAVORO
r1	r2		°C/°F (1)	0.0	setpoint di lavoro

8.2 Parametri di configurazione

PARAM.	MIN.	MAX.	U.M.	DEF.	SETPOINT DI LAVORO
SP	r1	r2	°C/°F (1)	0.0	setpoint di lavoro

PARAM.	MIN.	MAX.	U.M.	DEF.	INGRESSI DI MISURA
o1	-25	25	°C/°F (1)	0.0	offset sonda cella
o2	-25	25	°C/°F (1)	0.0	offset sonda evaporatore

P1	0	1	---	1	punto decimale grado Celsius (per la grandezza visualizzata durante il normale funzionamento, tra -9,9 e 19,9 °C) 1 = SI
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P2	0	1	---	0	unità di misura temperatura (2) 0 = °C 1 = °F
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P3	0	2	---	1	funzione della sonda evaporatore 0 = sonda assente 1 = sonda di sbrinamento e sonda per la termostatazione del ventilatore dell'evaporatore 2 = sonda per la termostatazione del ventilatore dell'evaporatore
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PARAM.	MIN.	MAX.	U.M.	DEF.	REGOLATORE PRINCIPALE
r0	0.1	15.0	°C/°F (1)	2.0	differenziale del setpoint di lavoro
r1	-99	r2	°C/°F (1)	{3}	minimo setpoint di lavoro
r2	r1	199	°C/°F (1)	50	massimo setpoint di lavoro

PARAM.	MIN.	MAX.	U.M.	DEF.	PROTEZIONI DEL COMPRESSORE
C0	0	199	min	0	ritardo compressore dall'accensione dello strumento

C2	0	199	min	3	durata minima dello spegnimento del compressore
C3	0	199	s	0	durata minima dell'accensione del compressore

PARAM.	MIN.	MAX.	U.M.	DEF.	SBRINAMENTO
d0	0	99	h	8	intervallo di sbrinamento 0 = lo sbrinamento a intervalli non verrà mai attivato

d1	0	1	---	0	tipo di sbrinamento 0 = elettrico 1 = a gas caldo
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d2	-99	99	°C/°F (1)	2.0	temperatura di fine sbrinamento (solo se P3 = 1)
d3	0	99	min	30	se P3 = 0 o 2, durata dello sbrinamento se P3 = 1, durata massima dello sbrinamento 0 = lo sbrinamento non verrà mai attivato

d4	0	1	---	0	sbrinamento all'accensione dello strumento 1 = SI
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d5	0	199	min	0	ritardo sbrinamento dall'accensione dello strumento (solo se d4 = 1)
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d6	0	1	---	1	temperatura visualizzata durante lo sbrinamento 0 = temperatura della cella 1 = se all'attivazione dello sbrinamento la temperatura della cella è al di sotto di "setpoint di lavoro + r0", al massimo "setpoint di lavoro + r0"; se all'attivazione dello sbrinamento la temperatura della cella è al di sopra di "setpoint di lavoro + r0", al massimo la temperatura della cella all'attivazione dello sbrinamento (4)
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d7	0	15	min	2	durata del gocciolamento
dA	0	99	min	0	durata minima dell'accensione del compressore all'attivazione dello sbrinamento affinché questi possa essere attivato (solo se d1 = 1) (5)

PARAM.	MIN.	MAX.	U.M.	DEF.	TEMPERATURE ALARMS (6) (7)
A1	0.0	199	°C/°F (1)	10.0	temperature below which the lower temperature alarm is activated (relative to the working setpoint or "working setpoint - A1") (8) 0.0 = alarm not enabled
A4	0.0	199	°C/°F (1)	10.0	temperature above which the upper temperature alarm is activated (relative to the working setpoint or "working setpoint + A4") (8) 0.0 = alarm not enabled
A6	0	199	min	120	upper temperature alarm delay since you turn on the instrument
A7	0	199	min	15	temperature alarm delay

PARAM.	MIN.	MAX.	U.M.	DEF.	EVAPORATOR FAN
F0	0	2	---	2	evaporator fan activity during the normal operation 0 = according to the compressor 1 = according to F1 (9) 2 = turned off if the compressor is turned off, according to F1 if the compressor is turned on (9)

F1	-99	99	°C/°F (1)	-1.0	evaporator temperature above which the evaporator fan is turned off (only if F0 = 1 or 2) (8)
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F2	0	1	---	0	evaporator fan activity during the defrost and the dripping 0 = turned off 1 = turned on
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F3	0	15	min	2	duration of the after dripping evaporator fan delay
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PARAM.	MIN.	MAX.	U.M.	DEF.	DIGITAL INPUTS
i1	0	1	---	0	kind of contact digital input 0 = NO (the input will be active if you close the contact) 1 = NC (the input will be active if you open the contact)

i3	-1	120	min	15	maximum duration of the effect provoked by the activation of the door switch input on the loads (only if i5 = 3 or 4) -1 = the effect will last as long as the input will be deactivated
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i5	0	4	---	4	kind of digital input (effect provoked by the activation of the digital input) 0 = no effect 1 = MULTIPURPOSE (activation external alarm) - spent the time i7 the display will show the code "IA" flashing (as long as the input will be deactivated) 2 = MULTIPURPOSE (activation manostat) - the compressor will be turned off and the display will show the code "IA" flashing (as long as the input will be deactivated); also look at i7 3 = DOOR SWITCH INPUT (compressor and evaporator fan turned off) - the compressor and the evaporator fan will be turned off (at most for the time i3 or as long as the input will be deactivated) and spent the time i7 the display will show the code "id" flashing (as long as the input will be deactivated) (10) 4 = DOOR SWITCH INPUT (evaporator fan turned off) - the evaporator fan will be turned off (at most for the time i3 or as long as the input will be deactivated) and spent the time i7 the display will show the code "id" flashing (as long as the input will be deactivated)
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i7	-1	120	min	30	if i5 = 1, delay to signal the multipurpose input alarm -1 = no signal if i5 = 2, compressor delay since the deactivation of the multipurpose input (11) if i5 = 3, delay to signal the door switch input alarm -1 = no signal
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A6	0	199	min	120	upper temperature alarm delay since you turn on the instrument
A7	0	199	min	15	temperature alarm delay

PARAM.	MIN.	MAX.	U.M.	DEF.	EVAPORATOR FAN
F0	0	2	---	2	evaporator fan activity during the normal operation 0 = according to the compressor 1 = according to F1 (9) 2 = turned off if the compressor is turned off, according to F1 if the compressor is turned on (9)

F1	-99	99	°C/°F (1)	-1.0	evaporator temperature above which the evaporator fan is turned off (only if F0 = 1 or 2) (8)
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F2	0	1	---	0	evaporator fan activity during the defrost and the dripping 0 = turned off 1 = turned on
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F3	0	15	min	2	duration of the after dripping evaporator fan delay
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