

E31/E33

- THERMOSTATS AND CONTROLLERS FOR REFRIGERATING UNITS
- ENERGY SAVING FUNCTIONS
- NFC PROGRAMMING



FEATURES

DISPLAY	E31 – E31N		E33 – E33N
Single	3 red or blue digit, h 17.7 mm		
INPUTS			
Two (e31) or Three (e33)	2x NTC 103AT-2 (10kΩ at 25°C) -50... +109°C (-58... +228°F)	3x NTC 103AT-2 (10kΩ at 25°C) -50... +109°C (-58... +228°F)	
Digital input	1 digital input for free voltage contacts as alternative to input 2		1 digital input for free voltage contacts as alternative to one of the measuring inputs
Accuracy	± 0.5 % fs + 1 digit		
OUTPUTS			
One (e31) or Three (e33)	Relay SPST-NO (30A – 2HP 250V, 1HP 125 VAC); EN 61810: 30 (15) A – EN 60730: 15 (15)A– UL 60730: 15 A Res., 96 LRA, 16 FLA or Relay SPST-NO (16A – 1HP 250V, 1/2HP 125 VAC); EN 61810: 16 (9) A – EN 60730: 10 (4)A– UL 60730: 12 A Res., 30 LRA, 5 FLA or Relay SPDT (16A – 1HP 250V, 1/2HP 125 VAC); EN 61810: 16 (9) A – EN 60730: 10 (4)A– UL 60730: 12 A Res., 30 LRA, 5 FLA 12 A max. for plug-in version	Up to 3 relays. OUT1: Relay SPST-NO (30A – 2HP 250V, 1HP 125 VAC); EN 61810: 30 (15) A – EN 60730: 15 (15)A– UL 60730: 15 A Res., 96 LRA, 16 FLA or Relay SPST-NO (16A – 1HP 250V, 1/2HP 125 VAC); EN 61810: 16 (9) A – EN 60730: 10 (4) A – UL 60730: 12 A Res., 30 LRA, 5 FLA OUT2: Relay SPDT (8A – 1/2 HP 250 VAC, 1/3 HP 125 VAC); EN 61810: 8 (3) A – EN 60730: 8 (4) A – UL 60730: 10 A Res. OUT3: Relay SPST-NO (5A – 1/10HP 125/250 VAC); EN 61810: 5 (1) A – EN 60730: 2 (1)A – UL 60730: 2 A Res.Gen.Use 12 A max. for plug-in version	
Relay operations	100000 operations		
FUNCTIONAL			
Control	ON/OFF		
Acoustic alarm	Internal Buzzer (optional)		
Defrosting control	At interval time by stopping compressor	At intervals time, at reaching temperature by stopping compressor, by electrical heating or hot gas/reverse cycle	
Energy Saving functions	Available		
Programming	via TTL port with A01 key and NFC programming with AFC1 device and mobile phone (Android)		
Serial communication	TTL for parameters configuration only		
GENERAL			
Power supply	12 VAC/VDC, 230 VAC, 115 VAC ±10% (50/60 Hz)		
Power consumption	3 VA approx.	3.5 VA approx.	
Dimensions / Weight	78 x 35 mm – depth 64 mm or 75.5 mm with plug-in terminals / 150g approx.	78 x 35 mm – depth 64 mm or 75.5 mm with plug-in terminals / 190g approx.	
Keyboard	Mechanical		
Connections	Inputs: Screw terminal block or plug-in connector for cables from 0.2 ÷ 2.5 mm2/AWG 24 ÷ 14; Power supply and outputs: Screw terminal block or plug-in connector or Faston 6.3 for cables from 0.2 ÷ 2.5 mm2/AWG 24 ÷ 14		
Mounting	Flush in panel in 71 x 29 mm hole		
Front protection degree	IP65 (NEMA 3S), mounted in panel with gasket and screw brakets		
Operating / storage temperature	0... +50°C (32... +122°F) /-25... +60°C (-13... +140°F)		
Operating humidity	<95 RH% without condensation		
Conformity	Directive 2004/108/CE (EN55022: class B; EN61000-4-2: 8kV air, 4kV cont.; EN61000-4-3: 10V/m; EN61000-4-4: 2kV power supply and relay outputs, 1kV inputs; EN61000-4-5: power supply 2kV com. mode, 1 kV/diff.mode; EN61000-4-6: 3V), Directive 2006/95/CE (EN 60730-1, EN 60730-2-9), Regulation 37/2005/CE (EN13485 air, S, A, 2, -50°C +90°C wheter used with NTC 103AT11 probe).		

HOW TO ORDER

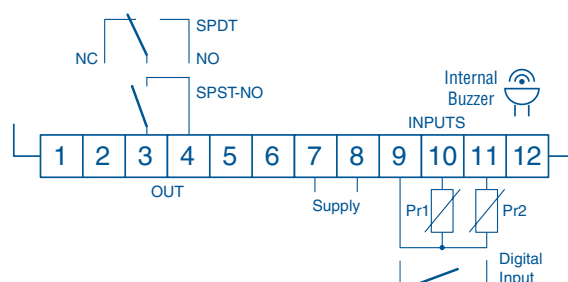
To compose the part number, pls. choose one of the option for each variable

E31 - E31N (NFC)	CODE
KEYBOARD	
Mechanical	-
POWER SUPPLY	
12 VAC/DC	F
115 VAC	C
230 VAC	D
OUT 1	
Relay SPST-NO 30A-AC1	H
Relay SPST-NO 16A-AC1	R
Relay SPDT 16A-AC1	S
BUZZER (INTERNAL)	
Available	B
Not available	-
CONNECTION	
Plug-in screw type	E
Plug-in screw type, fix part only	N
Fix screw type (standard)	V
INPUTS CONNECTIONS	
Plug-in screw type	E
Plug-in screw type, fix part only	N
Fix screw type (standard)	V
DISPLAY	
Blue+icons	C
Red (standard)	I

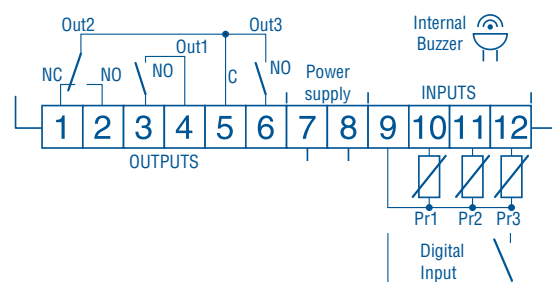
E33 - E33N (NFC)	CODE
KEYBOARD	
Mechanical	-
POWER SUPPLY	
12 VAC/DC	F
115 VAC	C
230 VAC	D
OUT 1	
Relay SPST-NO 30A-AC1	H
Relay SPST-NO 16A-AC1	R
OUT 2	
Relay SPDT 8A-AC1	R
Not available	-
OUT 3	
Relay SPST-NO 5A-AC1	R
Not available	-
BUZZER (INTERNAL)	
Available	B
Not available	-
CONNECTION	
Plug-in screw type	E
Plug-in screw type, fix part only	N
Fix screw type (standard)	V
INPUTS CONNECTION	
Plug-in screw type	E
Plug-in screw type, fix part only	N
Fix screw type (standard)	V
DISPLAY	
Blue+icons	C
Red (standard)	I

CONNECTIONS

E31-E31N

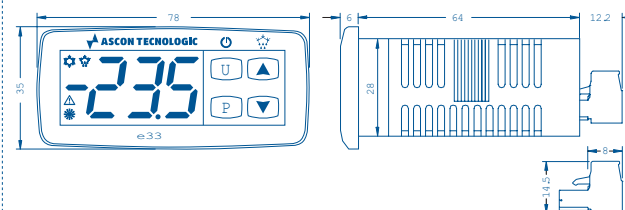


E33-E33N



DIMENSIONS

E31-E31N / E33-E33N



The dimensions are expressed in mm