



MOD : S80/RCR15-R2

Production code : 8045042HC

04/2025



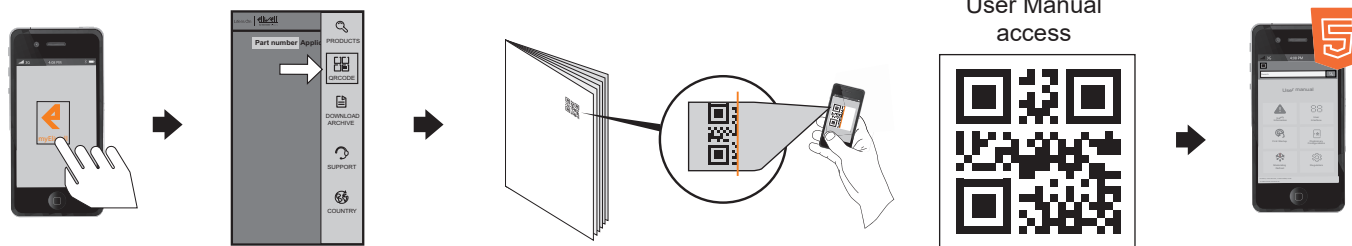
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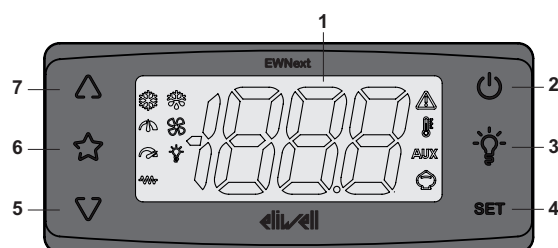
Scan the QR code using the myEliwell app to access the user manual.



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USER INTERFACE



1. Display
2. Esc/Stand-by key
3. Function 2
4. Confirm key
5. Down key
6. Function 1
7. Up key

NOTE: some keys may not be present, depending on the model.

ELECTRICAL CONNECTIONS

⚠ ⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Disconnect all power from all equipment including connected devices prior to removing any covers or doors, or installing or removing any accessories, hardware, cables or wires except under the specific conditions specified in the user manual for this equipment.
- Always use a properly rated voltage sensing device to confirm the power is off where and when indicated.
- Before restoring the power supply, replace and secure all covers, hardware components and cables.
- Use only the specified voltage when operating this equipment and any associated products.
- Use appropriate safety interlocks where personnel and/or equipment hazards exist.
- Install and use this equipment in an enclosure appropriately rated for its intended environment.
- Do not use this equipment for safety-critical functions.
- Do not disassemble, repair, or modify this equipment.

Failure to follow these instructions will result in death or serious injury.

⚠ ⚠ DANGER

HAZARD OF ELECTRIC SHOCK AND/OR FIRE

- Do not expose the equipment to liquids.
- Do not exceed the temperature and humidity ranges specified in the technical data and keep the area surrounding the cooling slits aerated.
- Do not apply dangerous voltages to the SELV connection terminals (see 'Connections' section).
- Only connect compatible accessories - as specified in the user manual - to the device.
- Only use cables with a suitable cross-section (see 'Wiring guidelines' section).
- Only use the expected removable screw terminal blocks (see 'Best wiring practices' section in the user manual).

Failure to follow these instructions will result in death or serious injury.

⚠ WARNING

HAZARD OF OVERHEATING AND/OR FIRE

- Do not use with loads other than those indicated in the technical data.
- Do not exceed the maximum permitted current; in the case of higher loads, use a contactor with suitable power.
- Verify that your application has not been designed with device outputs connected directly to devices generating a frequently operated capacitive load ⁽¹⁾.
- Power lines and output connections must be suitably wired and protected by means of fuses when required by national and local regulations.
- Connect the relay outputs, including the shared pole, using cables with a cross-section of 2.5 mm² and a length of at least 200 mm (7.87 in.).

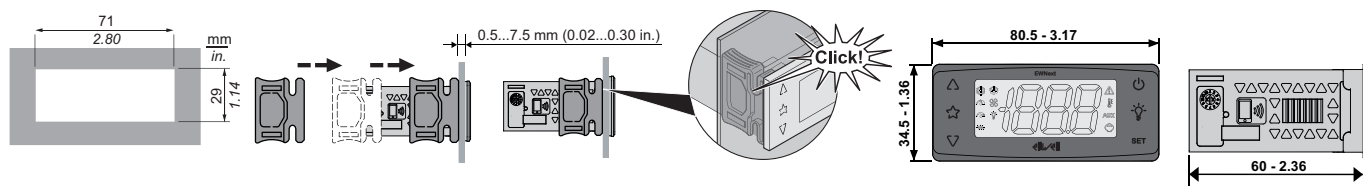
Failure to follow these instructions can result in death, serious injury, or equipment damage.

⁽¹⁾ Even if your application not apply a frequently operated capacitive load on the relay, capacitive loads will reduce the life of any electromechanical relay, and installation of a contactor or an external relay, that is sized and maintained according the ratings and characteristics of the capacitive load, will help minimize the consequence of relay degradation.

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MECHANICAL ASSEMBLY

The device is designed for panel mounting. Drill a 71x29 mm (2.80x1.14 in.) hole and insert the device; secure it with the special brackets provided. Keep the area around the device cooling slots adequately ventilated. The panel must be between 0.5 mm (0.02 in.) and 7.5 mm (0.30 in.) thick.



FLAMMABLE REFRIGERANT GASES

The use of flammable gas refrigerants is dependent on many factors, including local, regional and/or national regulations.

The devices and corresponding accessories described in the documentation accompanying the product use components and, more specifically, electromechanical relays tested in accordance with IEC standard 60079-15 and classed as nC components (non-sparking 'n' electrical apparatus). This condition complies to Annex BB of EN/IEC 60335-2-89.

Conformance to Annex BB EN/IEC 60335-2-89 is considered sufficient, and thereby suitable, for commercial refrigeration and HVAC applications applying flammable gas refrigerants, such as R290. However, other limitations, equipment, locations and/or type of machine (refrigerators, vending machines and dispensers, bottle coolers, ice machines, Reach-Ins, etc.) may also be implicated, restricted and/or required in so doing.

The use and application of the information contained herein require expertise in the design and parameterizing/programming of HVAC and refrigeration control systems. Only you—the original equipment manufacturer, installer or user—can be aware of all the conditions and factors present, and the regulations applicable, during the design, installation and setup, operation, and maintenance of the machine or related processes.

Therefore, only you can determine the suitability of automation and associated equipment, and the related safeties and interlocks, which can be effectively and properly used in the locations for which the equipment is to be put into service. When selecting automation and control equipment, and any other related equipment or software for an application, you must also consider any applicable local, regional or national standards and/or regulations.

You must verify, while incorporating this controller and related equipment, the final compliance of the machine to regulations and standards when using flammable gas refrigerants. Although all statements and information contained herein are believed to be accurate and reliable, they are presented without warranty of any kind. Information provided herein does not relieve you from the responsibility of carrying out your own tests and validations of conformance to any applicable regulations.

⚠ WARNING

REGULATORY INCOMPATIBILITY

Make sure that all equipment used and systems designed comply with all applicable local, regional and national laws.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

WIRING GUIDELINES

⚡⚡ DANGER

LOOSE WIRING CAUSES ELECTRIC SHOCK AND/OR FIRE

Tighten the connections in compliance with the technical specifications for torque values and make sure the wiring is correct.

Failure to follow these instructions will result in death or serious injury.

NOTICE

UNINTENDED EQUIPMENT OPERATION

SELV cables must be kept separate from other cables (see "Connections" section).

Failure to follow these instructions can result in equipment damage.

Use copper wires (obligatory).

The table below shows the type and size of permitted cables for screw terminal blocks and the torque values.

mm in.	6.5 0.26									Ø 3.5 mm (0.14 in.)	C	N•m	0.5...0.6
mm ²	0.2...2.5	0.2...2.5	0.25...2.5	0.25...2.5	2 x 0.2...0.75	2 x 0.2...0.75	2 x 0.25...0.75	2 x 0.5...1.5					
AWG	24...14	24...14	24...14	24...14	2 x 24...18	2 x 24...18	2 x 24...18	2 x 20...16					

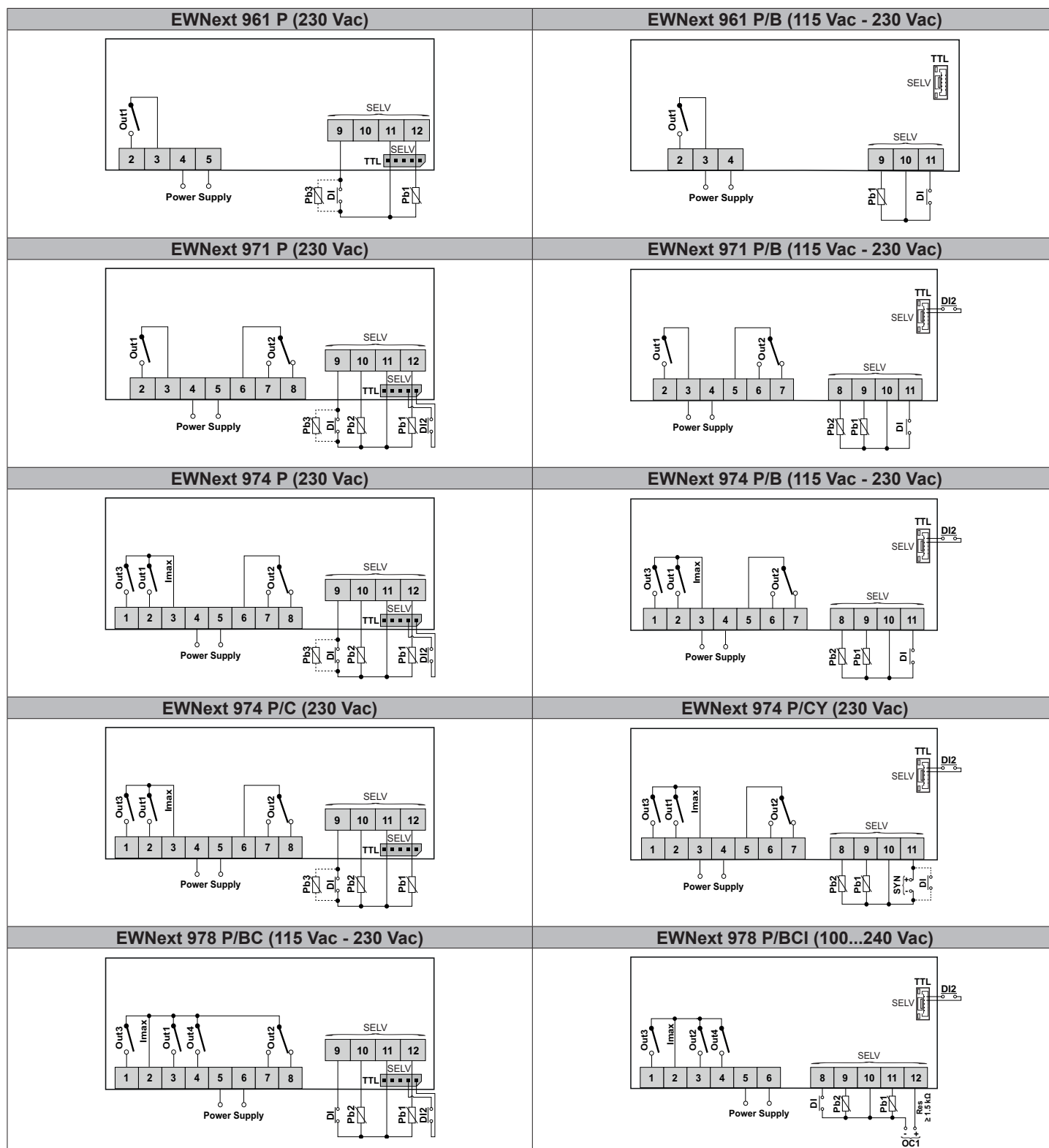
The table below shows the type and size of permitted cables for the type of screw terminal blocks illustrated below and the torque values.

mm in.	6.0 0.24				Ø 3.5 mm (0.14 in.)	C	N•m	0.5
mm ²	0.05...2.50	.05...1.5					lb-in	4.5
AWG	30...14	30...16						

Only use the expected removable screw terminal blocks (see 'Best wiring practices' section in the user manual).

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CONNECTIONS



TERMINALS

Pb1/Pb2/Pb3	NTC probes
DI/DI2	Digital inputs
Out1...Out4	Relay outputs
Power Supply	Power supply input: 115 Vac, 230 Vac or 100...240 Vac
SYN	Input for defrosts synchronization
OC1	Open Collector Output: Negative terminal OC1 (-) and positive terminal OC1 (+). 12 Vdc $\pm 5\%$ - Load impedance $\geq 1.5\text{ k}\Omega$
Imax	Screw terminal blocks: maximum 17 A Removable screw terminal blocks: maximum 12 A
TTL	TTL serial port or DI2 (depending on model)
SELV	SELV connections

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TECHNICAL DATA

The product complies with the following harmonized Standards: EN 60730-1 and EN 60730-2-9

Construction of control:	Electronic automatic Incorporated Control
Purpose of control:	Operating control (non-safety related)
Type of action:	1.C
Degree of protection by enclosure:	IP00 for models with removable screw terminal blocks IP20 for models with screw terminal blocks IP65 front panel only (Tested in accordance with EN 60529 with a steel sheet 2 mm (0.08 in.) thick ± 10 %)
Pollution degree:	2
Overvoltage category:	II
Rated impulse voltage:	2500 V
Ambient operating conditions:	Temperature: -5...55 °C (23...131 °F) - Humidity: 10...90 % RH (non-condensing)
Transportation and storage conditions:	Temperature: -30...85 °C (-22...185 °F) - Humidity: 10...90 % RH (non-condensing)
Power supply:	230 Vac (± 10 %) 50/60 Hz, 115 Vac (± 10 %) 50/60 Hz, 100...240 Vac (± 10 %) 50/60 Hz
Power draw (maximum):	Models 230 Vac and 115 Vac: 5.5 VA - Model 100...240 Vac: 6 VA
Software class:	A
Environmental front panel rating:	Type 1
Temperature for the ball pressure test:	Front and Rear cover: 128 °C (262.4 °F) Terminal blocks: 107 °C (224.6 °F) PWB (Printed Wiring Board): 125 °C (257 °F)

Loads:	Models 230 Vac	Power supply	Relay	EU (230 Vac)	USA (230 Vac)
	EWNNext 961 P EWNNext 961 P/B	230 Vac	Out1	12(8) A	12FLA 72LRA
	EWNNext 971 P EWNNext 971 P/B	230 Vac	Out1	12(8) A	12FLA 72LRA
			Out2	NO 8(4) A - NC 6(3) A CO 6 A resistive	NO 8 A / NC 6 A / CO 6 A resistive NO 3.6FLA 21.6LRA
	EWNNext 974 P EWNNext 974 P/B EWNNext 974 P/C EWNNext 974 P/CY	230 Vac	Out1	12(8) A	12FLA 72LRA
			Out2	NO 8(4) A - NC 6(3) A CO 6 A resistive	NO 8 A / NC 6 A / CO 6 A resistive NO 3.6FLA 21.6LRA
			Out3	5(2) A	5 A resistive - 2FLA 12LRA
	EWNNext 978 P/BC	230 Vac	Out1	10(6) A	10FLA 60LRA
			Out2	NO 8(4) A - NC 6(3) A CO 6 A resistive	NO 8 A / NC 6 A / CO 6 A resistive NO 3.6FLA 21.6LRA
			Out3	5(2) A	5 A resistive - 2FLA 12LRA
			Out4	5(2) A	5 A resistive - 2FLA 12LRA
	Models 115 Vac	Power supply	Relay	EU (115 Vac)	USA (115 Vac)
	EWNNext 961 P/B	115 Vac	Out1	12(8) A	V*: 16FLA 96LRA - S**: 12FLA 72LRA
	EWNNext 971 P/B	115 Vac	Out1	12(8) A	V*: 16FLA 96LRA - S**: 12FLA 72LRA
			Out2	NO 8(4) A - NC 6(3) A CO 6 A resistive	NO 8 A / NC 6 A / CO 6 A resistive NO 3.6FLA 21.6LRA
	EWNNext 974 P/B	115 Vac	Out1	12(8) A	V*: 16FLA 96LRA - S**: 12FLA 72LRA
			Out2	NO 8(4) A - NC 6(3) A CO 6 A resistive	NO 8 A / NC 6 A / CO 6 A resistive NO 3.6FLA 21.6LRA
			Out3	5(2) A	5 A resistive - 2FLA 12LRA
	EWNNext 978 P/BC	115 Vac	Out1	10(6) A	10FLA 60LRA
			Out2	NO 8(4) A - NC 6(3) A CO 6 A resistive	NO 8 A / NC 6 A / CO 6 A resistive NO 3.6FLA 21.6LRA
			Out3	5(2) A	5 A resistive - 2FLA 12LRA
			Out4	5(2) A	5 A resistive - 2FLA 12LRA
	Model 100...240 Vac	Power supply	Relay	EU (230 Vac)	USA (115 Vac)
	EWNNext 978 P/BCI	100...240 Vac	Out2	10(6) A	10FLA 60LRA
			Out3	5(2) A	5 A resistive - 2FLA 12LRA
			Out4	10(6) A	10FLA 60LRA

V* = models with screw terminal blocks - S** = models with removable screw terminal blocks.

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LIABILITY AND RESIDUAL RISKS

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel.

The liability of Schneider Electric and Eliwell is limited to the correct and professional use of the product according to the directives referred to herein and in the other supporting documents, and does not cover any damage (including but not limited to) the following causes:

- installation/uses other than those expressly specified and, in particular, failure to comply with the safety requirements of established standards and/or instructions specified in this document;
- use on panels that do not provide adequate protection against electric shocks, water or dust when assembled;
- use on panels which allow access to dangerous parts without the aid of a keyed or tooled locking mechanism;
- tampering with and/or modification of the product;
- installation/use on panels that do not comply with the regulations in force in the country of installation.

DISCLAIMER

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CONDITIONS OF USE

Permitted use

The device must be installed and used in accordance with the instructions provided. In particular, parts carrying dangerous voltages must not be accessible under normal conditions. The device must be adequately protected from water and dust with regard to the application, and must only be accessible using tools or a keyed locking mechanism (with the exception of the front panel). The device is suitable for use in household refrigeration appliances and/or similar equipment and has been tested in accordance with the harmonized European reference standards.

Prohibited use

Any use other than that expressly permitted is prohibited. The relays provided are of a functional type and can be subject to failure: any protection devices required by product standards, or suggested by common sense for obvious safety requirements, must be installed externally to the controller.

DISPOSAL



The device (or product) must be collected separately in compliance with current regulations on disposal.

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VERIFICA FUNZIONAMENTO TERMOSTATO DIGITALE E IMPOS. PARAMETRI VANO REF RIGERATO

IMPOSTARE SET POINT DI LAVORO VANO +4°C

VALORE PARAMETRI EW971 :

**dIF=3
HSE=15
LSE =2
HC=C
dbi=1
dit =6
dEt=15
HAL=15
LAL=-15
PAO=1
dAO=30
tAO=20
CA1=-1
H8=1**

VERIFICA FUNZIONAMENTO TERMOSTATO DIGITALE E IMPOSTAZIONE PARAMETRI VASCA

IMPOSTARE SET POINT DI LAVORO VASCA+4°C

VALORE PARAMETRI EW971 :

**dIF=3
HSE=15
LSE (VASCA)=2
HC=C
dbi (VASCA)=1
dit (VASCA)=6
dEt=15
HAL=15
LAL=-15
PAO=1
dAO=30
tAO=20
CA1=5
H8=1**