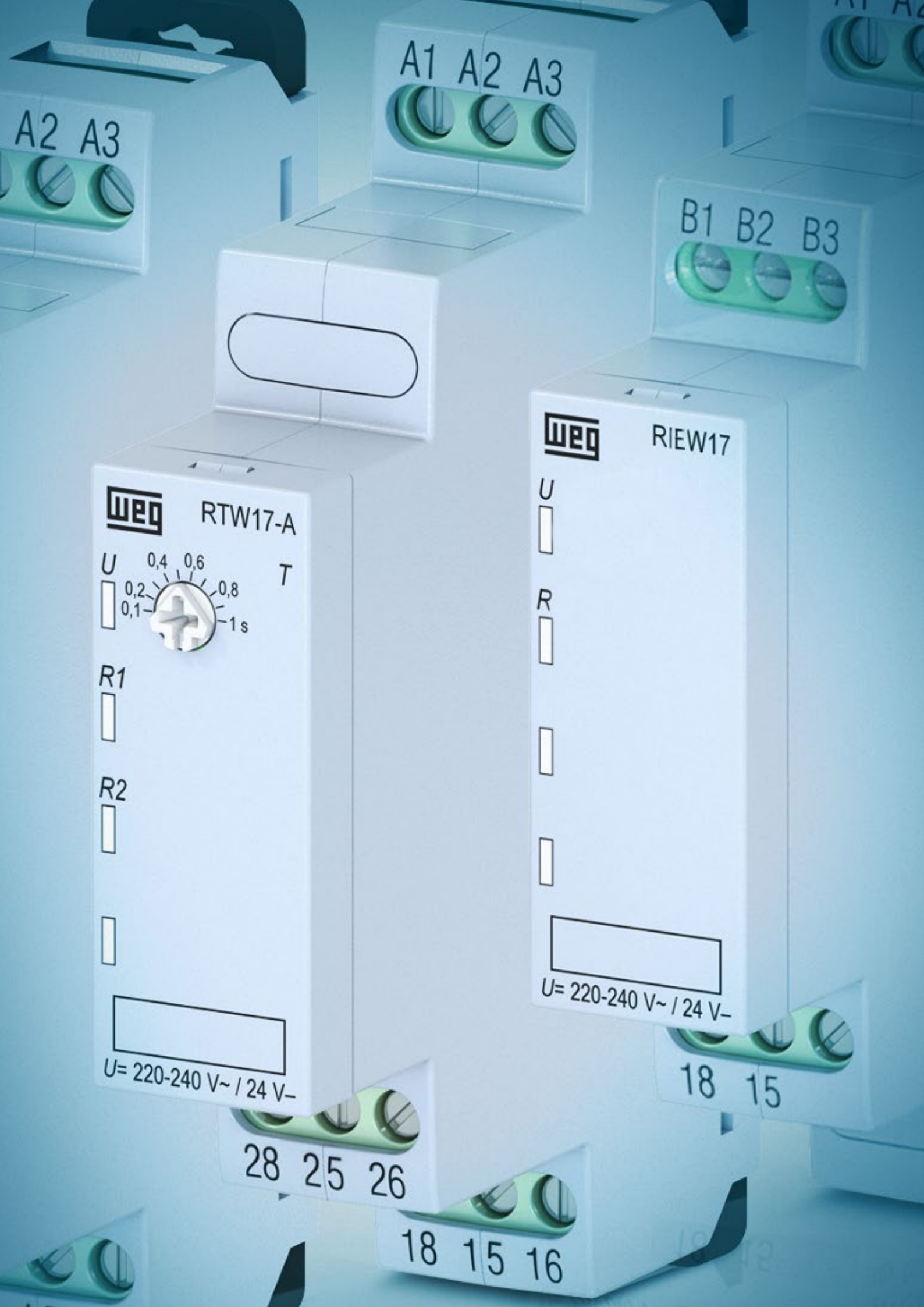
Automation

Electronic Relays
Modular Line

- Timing
- Impulse


A1 A2 A3
A2 A3
B1 B2 B3
RTW17-A
U
0,4
0,6
0,2
0,8
0,1
1 s
T
R1
R2
U= 220-240 V~ / 24 V–
RIEW17
U
R
U= 220-240 V~ / 24 V–
28 25 26
18 15 16
18 15

Electronic Relays
Line 17.5 mm

Summary

VERSATILITY AND ECONOMY

RTW17 Timing Relays

The RTW17 timing relays are electronic devices that allow the switching of starters, protections and control circuits based on selected times.

Impulse Relays

The RIEW17 impulse relays were designed to be used in the control of automation systems in homes, hotels and commercial or residential buildings. They have incorporated reset (master-off), and, when enabled, they provide full guarantee that the system will remain energized. Its compact size allows installation in switchboard panels, concentrating the installation in a single place.

Main Characteristics

COMPACT

Compact size, 17.5 mm wide

MODULAR

Suitable for installation in switchboard panels, industrial panels and motor starters

EASY INSTALLATION

- Direct mounting on DIN rail 35 mm or fixed with screws
- Application in industrial or home environments

ENERGY SAVINGS

Low energy consumption due to highly precise electronic circuits

INTERNATIONAL CERTIFICATIONS

Designed according to the following standards:

- IEC / EN 1812-1
- IEC / EN 60947-1
- IEC / EN 60947-5-1
- IEC / EN 61812
- UL 508 CAN / CSA C22.2

Application

Industries in general

Panel installers

Residential and commercial

Shopping malls

Hospital installations

Agribusiness

Food equipment

Timing Relays

RTW17 - One Timing Range and One Voltage

Supplied with the following timing functions:

- RTW17-A - On-delay
- RTW17-E - Impulse on
- RTW17-G - Star-delta

Selection

RTW17	A	01	U030S	E37

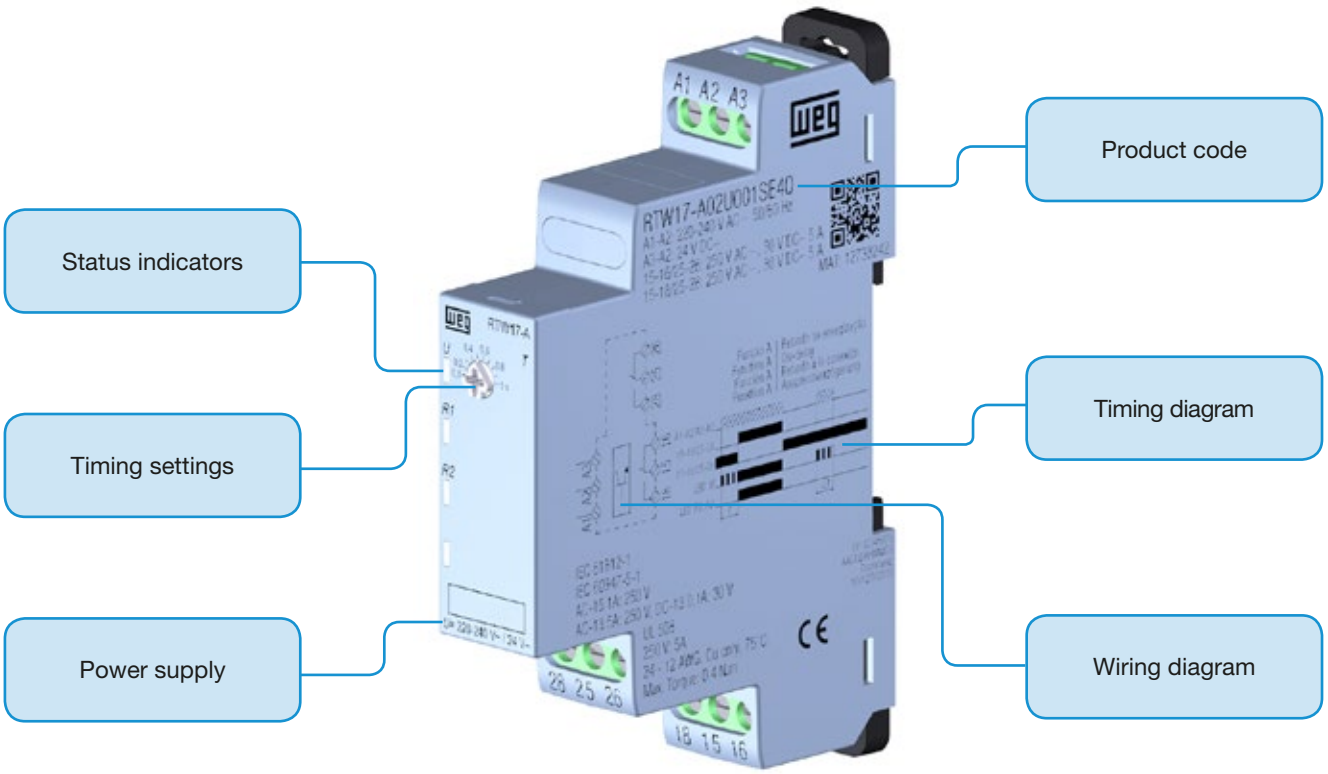
Timing relay: RTW17

Type
A - On-delay
E - Impulse on
G - Star-delta

Number of contacts
01 - 1 NOC contact
02 - 2 NOC contacts

Timing range
U001S - 0.1 to 1 second
U003S - 0.3 to 3 seconds
U010S - 1 to 10 seconds
U030S - 3 to 30 seconds
U060S - 6 to 60 seconds
U100S - 10 to 100 seconds
U300S - 30 to 300 seconds
U010M - 1 to 10 minutes
U030M - 3 to 30 minutes
U060M - 6 to 60 minutes

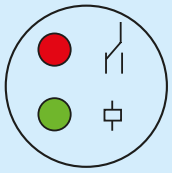
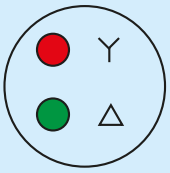
Power supply
E37 - 110-130 V ac / 24 V dc
E40 - 220-240 V ac / 24 V dc

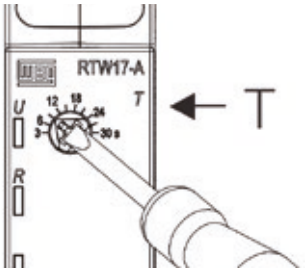


Time Setting

Single Timing Range

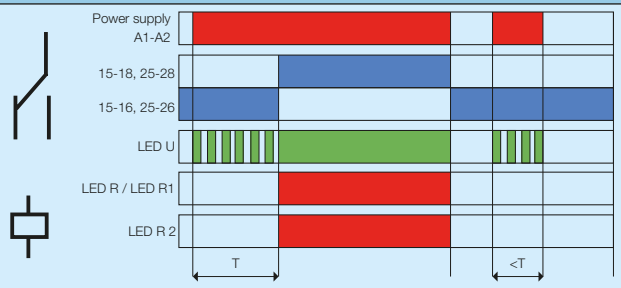
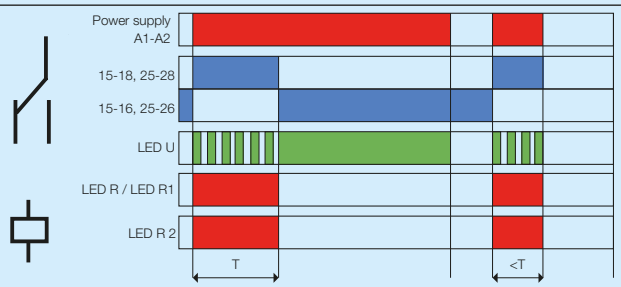
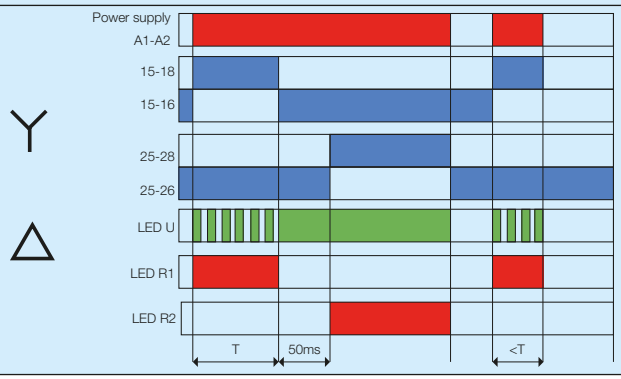
Example: RTW17-A

	RTW17 - A / E		RTW17 - G	
Red LED	Output on		Time Y	
Green LED	Power supply		Time Δ	

RTW	A / E	G
	0.1 - 1s	3 - 30s
	0.3 - 3s	
	1 - 10s	
	3 - 30s	
	6 - 60s	
	10 - 100s	
	30 - 300s	
	1 - 10min	
	3 - 30min	
	6 - 60min	

Functions

Single Timing Models (RTW17)

Operating mode	Timing diagram
RTW17-A (on-delay) After the relay is energized, the time (T) set on the selector begins. After that time has elapsed, the output contacts will switch, remaining in that state until the power supply is interrupted.	
RTW17-E (impulse on) After the relay is energized, the output contacts are instantly switched and remain activated for the time (T) set on the selector.	
RTW17-G (star-delta) After the relay is energized, the output star contacts instantly switch and remain activated for the time (T) set on the selector. After 50ms, the delta terminals are activated and remain in that state until the power supply is interrupted.	

Selections

RTW17 Timing Relays - One Timing Range and One Voltage

On-Delay Function (A)

Model	Function	Contacts	Timing range	Reference
RTW17	A	1NC	T: 0.1-1s	RTW17-A01U001S•
			T: 0.3-3s	RTW17-A01U003S•
			T: 1-10s	RTW17-A01U010S•
			T: 3-30s	RTW17-A01U030S•
			T: 6-60s	RTW17-A01U060S•
			T: 10-100s	RTW17-A01U100S•
			T: 30-300s	RTW17-A01U300S•
			T: 1-10min	RTW17-A01U010M•
			T: 3-30min	RTW17-A01U030M•
			T: 6-60min	RTW17-A01U060M•
		2NC	T: 0.1-1s	RTW17-A02U001S•
			T: 0.3-3s	RTW17-A02U003S•
			T: 1-10s	RTW17-A02U010S•
			T: 3-30s	RTW17-A02U030S•
			T: 6-60s	RTW17-A02U060S•
			T: 10-100s	RTW17-A02U100S•
			T: 30-300s	RTW17-A02U300S•
			T: 1-10min	RTW17-A02U010M•
			T: 3-30min	RTW17-A02U030M•
			T: 6-60min	RTW17-A02U060M•

Impulse On Function (E)

Model	Function	Contacts	Timing range	Reference
RTW17	E	1NC	T: 0.1-1s	RTW17-E01U001S•
			T: 0.3-3s	RTW17-E01U003S•
			T: 1-10s	RTW17-E01U010S•
			T: 3-30s	RTW17-E01U030S•
			T: 6-60s	RTW17-E01U060S•
			T: 10-100s	RTW17-E01U100S•
			T: 30-300s	RTW17-E01U300S•
			T: 1-10min	RTW17-E01U010M•
			T: 3-30min	RTW17-E01U030M•
			T: 6-60min	RTW17-E01U060M•
		2NC	T: 0.1-1s	RTW17-E02U001S•
			T: 0.3-3s	RTW17-E02U003S•
			T: 1-10s	RTW17-E02U010S•
			T: 3-30s	RTW17-E02U030S•
			T: 6-60s	RTW17-E02U060S•
			T: 10-100s	RTW17-E02U100S•
			T: 30-300s	RTW17-E02U300S•
			T: 1-10min	RTW17-E02U010M•
			T: 3-30min	RTW17-E02U030M•
			T: 6-60min	RTW17-E02U060M•

Star-Delta Function (G)

Model	Function	Contacts	Timing range	Reference
RTW17	G	2NC	T: 3-30s	RTW17-G02U030S•

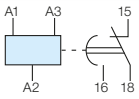
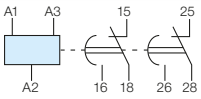
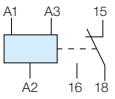
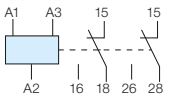
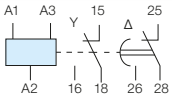
• Power supply		
Code	Supply terminal 1	Supply terminals 2
E37	A1-A2: 110-130 V ac ~ 50/60 Hz	A3-A2: 24 V dc
E40	A1-A2: 220-240 V ac ~ 50/60 Hz	

Note: 1) UL certification. Contact WEG Automation sales department.

Certifications

Wiring Diagram

RTW Timing Relay - One Timing and One Voltage

Reference		RTW17-A		RTW17-E		RTW17-G
Contacts		1NO	2NO	1NO	2NO	2NO
Terminal position						
Diagram						
RTW one timing range and one voltage						
Circuit	A1-A2 Power supply	110-130 V ac, 220-240 V ac				110-130 V ac, 220-240 V ac
	A3-A2 Power supply	24 V dc				24 V dc
Terminals	15-16-18	Output 1				Output 1
	25-26-28	-	Output 2	-	Output 2	Output 2

Technical Specifications - RTW17

			Model	
			RTW17-xxx-UxxxxE40	RTW17-xxx-UxxxxE37
Inputs	Power supply (U_e)[1]	A1-A2	110 to 130 V ac	220 to 240 V ac
		A3-A2	24 V dc	
	Operation range		0.85 to 1.10 x U_s	
	Frequency		50/60 Hz	
	Maximum consumption		70 mA em 240 V ac (U_s)	80 mA at 240 V ac (U_s)
	Isolated rated voltage (U_i)		300 V	
Time setting	Reset time		100ms	
	Minimum period of the command impulse		50ms	
	Scale precision (full scale)		±5%	
	Repeatability precision (full scale)		±2%	
	Y - Δ switching time (star-delta function)		50ms ±20%	
Outputs	Capacity of the output contacts (I_e)		AC-13 (resistive) at 250 V ac: 5 A AC-15 at 230 V ac: 1 A DC-13 at 24 V dc: 1 A DC-13 at 48 V dc: 0.45 A DC-13 at 60 V dc: 0.35 A DC-13 at 125 V dc: 0.2 A DC-13 at 250 V dc: 0.1 A	
	Rated thermal current (I_{th})		5 A for AC 1 A for DC	
	Fuse (class gL/gG)		4 A	
	Mechanical lifespan		30 x 10^6 operating cycles	
Characteristics	Ambient temperature	Operation	-5 ºC to +60 ºC	
		Storage	-40 ºC to +85 ºC	
	Degree of protection		Frame: IP20 Terminals: IP20	
	Connection section (min. to max.)	Cable without end sleeves	1 x (0.5 to 2.5) mm^2 2 x (0.2 to 3.3) mm^2	
		Cable with end sleeves	1 x (0.2 to 3.3) mm^2	
		AWG-Wire	2 x (0.2 to 3.3) mm^2 / 2 x (12 to 24) AWG	
	Tightening torque		0.4 N.m	
	Terminal screw		7 to 10.6 Lb.in	
	Assembly position		Any	
	Shock resistance		15 g / 11ms	
	Vibration resistance		10 to 55 Hz / 0.35 mm	
	Weight		0.08 kg - models with 1NOC 0.095 kg - models with 2NOC	
	Pollution degree		2	
	Overvoltage category		III	

Note: 1) In the versions with two power supplies, only one must be connected.

Impulse Relay

RIEW17

The RIEW17 impulse relay was designed to be used in the control of automation systems in homes, hotels and commercial or residential buildings. 17.5 mm wide, it is compact size allows installation in switchboard panels.

The commands of the automation system can be executed from one or more points, replacing conventional switches by pushbuttons, thus allowing multiple commands in a flexible, simple and quick way, providing greater effectiveness and electric energy savings. It may also be used in the command of illumination systems and other home automation systems, ensuring safety and reliability. Furthermore, it has incorporated reset (master-off) and alternate current (AC) or direct current (DC) power supply.

Selection

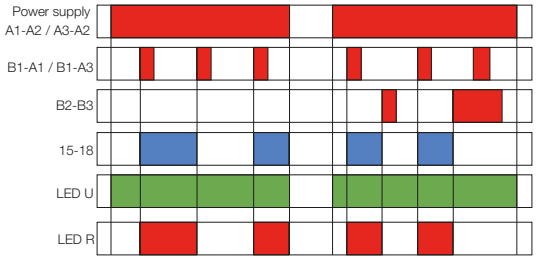
Reference	Description	Power supply	Contacts	Width
RIEW17-01E40	Impulse relay	220-240 V ac / 24 V dc	1 NO	17.5 mm

Operation

Operating Mode

The U LED indicates the RIEW17 is energized (green LED On). With the RIEW17 energized, when a command pulse is emitted, the output relays picks up, the NO contact closes, thus activating the connected devices.
The R red LED turns on, indicating the output is closed. After one more command pulse, the output returns to the regular state (NO contact). The R LED turns off.
The reset function (master-off) disables the output relay, regardless of the output contact state. If several RIEW17 relays with reset (master-off) are present in a network and they can be enabled, all of them will be turned off (contacts 15-18 will remain open).

Timing Diagram

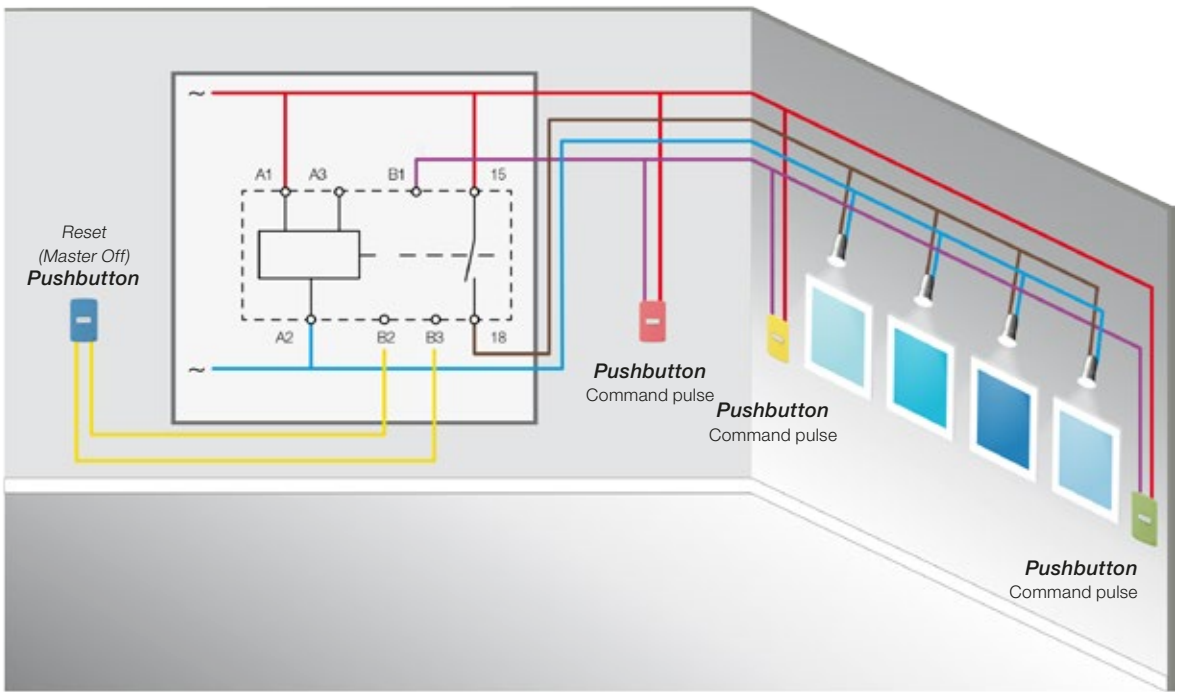


Note: A1-A2/A3-A2: Power Supply
B1-A1/B1-A3: Command pulse
B2-B3: Reset (Master off)
15-18: Output Contact
U LED: Energization status indication
R LED: Output contact status indication

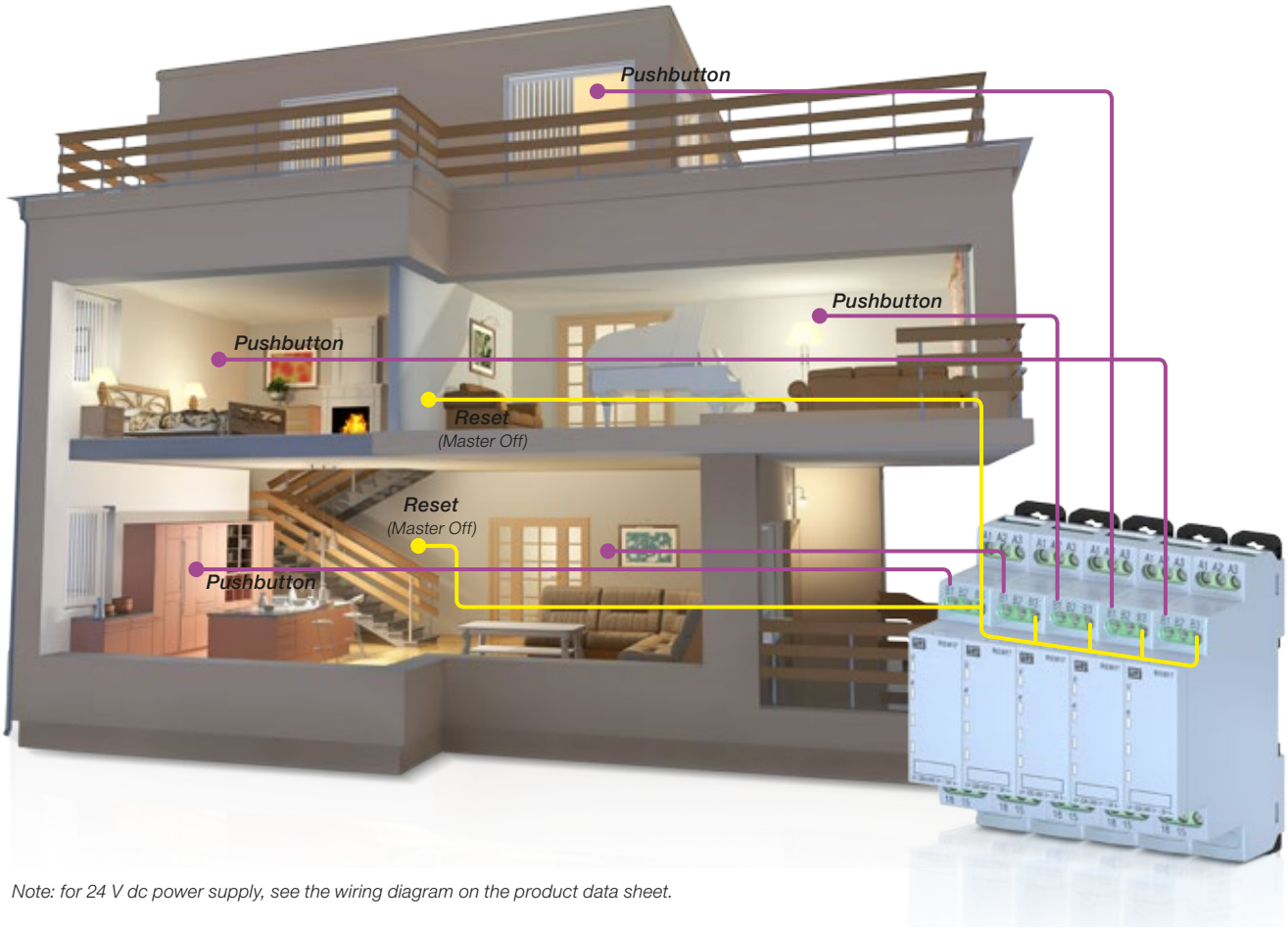
Technical Specifications

Function		Electronic impulse
Power supply (Us)		220-240 V ac / (50/60 Hz) / 24 V dc
Operation range		AC: 0.85 to 1.1 Us
		DC: 0.80 to 1.2 Us
Isolated rated voltage (Ui)		300 V ac
Switching current	Rated	16 A
	Maximum instant	30 A
Rated load at AC1		4,000 VA
Rated load at AC15 (230 V ac)		750 VA
Maximum lamp loads		Incandescent/halogen: 3,000 W
		Fluorescent with electronic reactor: 1,500 W
		Fluorescent electromagnetic reactor: 1,000 W
		CFL (Compact Fluorescent Lamps): 600 W
		LED (230 V ac): 600 W
		Halogen or LED with electronic reactor: 600 W
		Halogen or LED with electromagnetic reactor: 1,500 W
Output contact		1 NO contact
Ambient temperature allowed	Operation	-25 to +60 °C
	Storage	-40 to +85 °C
Tightening torque		0.4 N.m

Wiring diagram



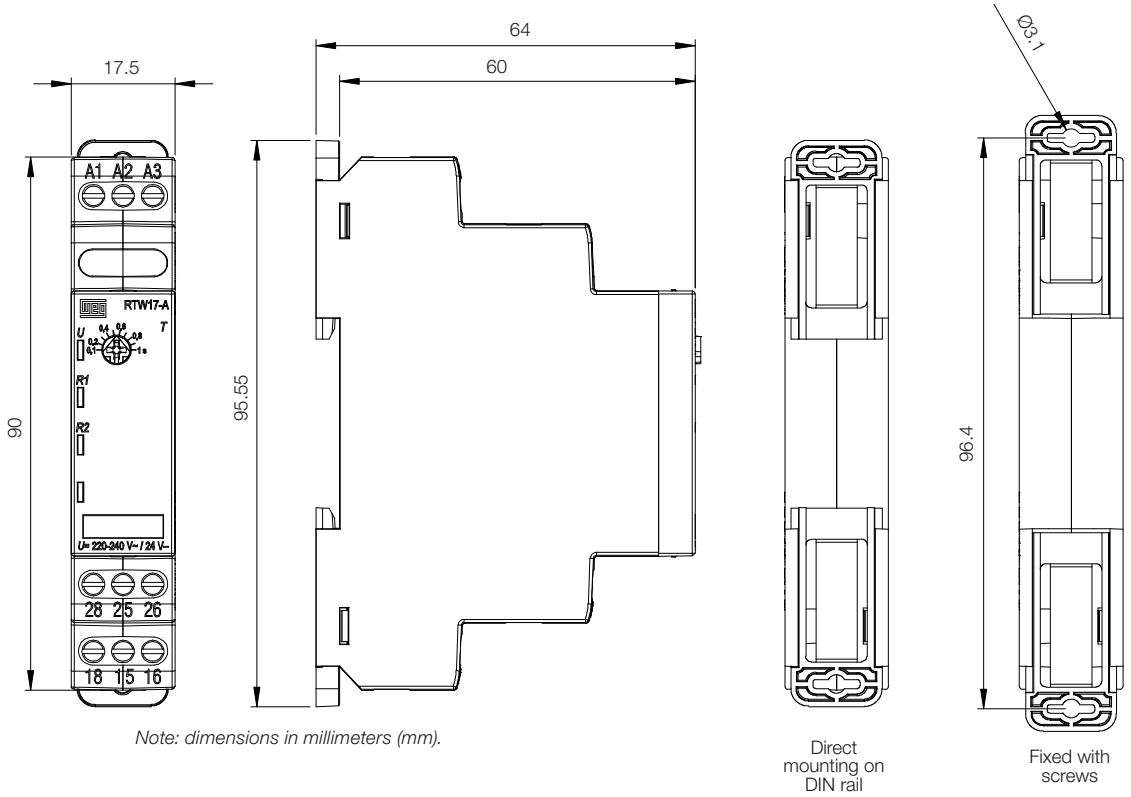
Reset (Master-Off) - Central Off Position



Note: for 24 V dc power supply, see the wiring diagram on the product data sheet.

Dimensions

RTW17 and RIEW17



Note: dimensions in millimeters (mm).

Altitudes - Ratio-Corrector Factor

Altitude above sea level - h	Voltage ratio-corrector factor (U_{and}) / V	Current ratio-corrector factor (I_u) / A
h ≤2,000 m	1	1 x I_n
2,000 <h ≤3,000 m	0.87	0.95 x I_n
3,000 <h ≤4,000 m	0.77	0.90 x I_n
4,000 <h ≤5,000 m	0.67	0.85 x I_n

Global presence is essential, as much as understanding your needs.

Global Presence

With more than 30,000 employees all over the world, we are one of the largest global manufacturers of electric motors, electrical and electronic equipment and systems. We are constantly expanding our portfolio of products and services with expertise and market knowledge. We create integrated and customized solutions, ranging from innovative products to complete after-sales service.

WEG's know-how guarantees the ***Electronic Relays of the 17.5 mm*** line are the right choice for your application and business, assuring safety, efficiency and reliability.

- ***Availability*** is to have a global support network
- ***Partnership*** is to create solutions that suit your needs
- ***Competitive edge*** is to unite technology and inovation

Know More

High performance and reliable products to improve your production process.

Excelence is to provide a whole solution in industrial automation that improves our customers productivity.

Visit: **www.weg.net**

youtube.com/wegvideos

WEG Worldwide Operations

ARGENTINA
San Francisco - Cordoba
Phone: +54 3564 421484
info-ar@weg.net

Cordoba - Cordoba
Phone: +54 351 4641366
weg-morbe@weg.com.ar

Buenos Aires
Phone: +54 11 42998000
ventas@pulverlux.com.ar

AUSTRALIA
Scoresby - Victoria
Phone: +61 3 97654600
info-au@weg.net

AUSTRIA
Markt Piesting - Wiener Neustadt-Land
Phone: +43 2633 4040
watt@wattdrive.com

BELGIUM
Nivelles - Belgium
Phone: +32 67 888420
info-be@weg.net

BRAZIL
Jaraguá do Sul - Santa Catarina
Phone: +55 47 32764000
info-br@weg.net

CHILE
La Reina - Santiago
Phone: +56 2 27848900
info-cl@weg.net

CHINA
Nantong - Jiangsu
Phone: +86 513 85989333
info-cn@weg.net

Changzhou – Jiangsu
Phone: +86 519 88067692
info-cn@weg.net

COLOMBIA
San Cayetano - Bogota
Phone: +57 1 4160166
info-co@weg.net

ECUADOR
El Batan - Quito
Phone: +593 2 5144339
ceccato@weg.net

FRANCE
Saint-Quentin-Fallavier - Isère
Phone: +33 4 74991135
info-fr@weg.net

GERMANY
Türnich - Kerpen
Phone: +49 2237 92910
info-de@weg.net

Balingen - Baden-Württemberg
Phone: +49 7433 90410
info@weg-antriebe.de

Homberg (Efze) - Hesse
Phone: +49 5681 99520
info@akh-antriebstechnik.de

GHANA
Accra
Phone: +233 30 2766490
info@zestghana.com.gh

INDIA
Bangalore - Karnataka
Phone: +91 80 41282007
info-in@weg.net

Hosur - Tamil Nadu
Phone: +91 4344 301577
info-in@weg.net

ITALY
Cinisello Balsamo - Milano
Phone: +39 2 61293535
info-it@weg.net

JAPAN
Yokohama - Kanagawa
Phone: +81 45 5503030
info-jp@weg.net

MALAYSIA
Shah Alam - Selangor
Phone: +60 3 78591626
info@wattdrive.com.my

MEXICO
Huehuetoca - Mexico
Phone: +52 55 53214275
info-mx@weg.net

Tizayuca - Hidalgo
Phone: +52 77 97963790

NETHERLANDS
Oldenzaal - Overijssel
Phone: +31 541 571080
info-nl@weg.net

PERU
La Victoria - Lima
Phone: +51 1 2097600
info-pe@weg.net

PORTUGAL
Maia - Porto
Phone: +351 22 9477700
info-pt@weg.net

RUSSIA and CIS
Saint Petersburg
Phone: +7 812 363 2172
sales-wes@weg.net

SOUTH AFRICA
Johannesburg
Phone: +27 11 7236000
info@zest.co.za

SPAIN
Coslada - Madrid
Phone: +34 91 6553008
wegiberia@wegiberia.es

SINGAPORE
Singapore
Phone: +65 68589081
info-sg@weg.net

Singapore
Phone: +65 68622220
watteuro@watteuro.com.sg

SCANDINAVIA
Mölnlycke - Sweden
Phone: +46 31 888000
info-se@weg.net

UK
Redditch - Worcestershire
Phone: +44 1527 513800
info-uk@weg.net

UNITED ARAB EMIRATES
Jebel Ali - Dubai
Phone: +971 4 8130800
info-ae@weg.net

USA
Duluth - Georgia
Phone: +1 678 2492000
info-us@weg.net

Minneapolis - Minnesota
Phone: +1 612 3788000

VENEZUELA
Valencia - Carabobo
Phone: +58 241 8210582
info-ve@weg.net

For those countries where there is not a WEG own operation, find our local distributor at www.weg.net.

WEG Group - Automation Business Unit
Jaraguá do Sul - SC - Brazil
Phone: +55 47 3276 4000
automacao@weg.net
www.weg.net

Code: 50069233 | Rev: 00 | Date (m/y): 08/2016