

Case RDN DIN Rail

AC voltage & Three-phase BTA



Reference :

RDN - VOLTAGE + CA + COLOR(s)*

Example : RDN230CABc

Option "Fast Control" → add FC

Option "Phase visualisation" → add PV

Additional lamp → F08, F12, F22 or F30 Fazim in 12Vdc
50mA max

* : Voltage between Phase and neutral.

Generalities

The RDN devices (*Neutral Detector Relay*) are intended for power tables (electrical cabinets), they allow to see the presence of neutral with a relay output. they work in different neutral systems : **TT, TNC, TNS & IT**. Single-phase or 3-phase voltage with a large range, able to work between 1 to 800Hz frequency (see options). Optional on request, a device allow a fastest detection «FC» and/or a seeing visualisation of 3 phases «PV».

Description

- Enclosure : Moulded in light grey UL94-V0 flame retardant polycarbonate, size : Modulo 2, Base fits 35mm DIN rail or directly to flat surface, terminal identification by white gravopli label, IP20.
- Front face : 1 color LED for neutral presence, 3 color LED for phase visualisation (optional PV only). Available colors : Red (R), Green (V), Yellow (J), Blue (Be) and White (Bc). Silkscreen in front face on white Gravopli engraved.

Technical specifications

- Supply voltage between phase & neutral, average consumption 50/60Hz (+/-20%) :

Options	Tensions		Frequencies range	3 phases viewing	Fast detection	relay output	Output relay specifications
	90 to 400 Vac						
Standard RDN	32mA max Cos φ > 0.95 Inductive		1 to 800 Hz			✓	5 A / 250Vac
Option FC	32mA max Cos φ > 0.95 Inductive		1 to 800 Hz		✓	✓	
Option PV	40mA max Cos φ > 0.90 Inductive		50 / 60Hz	✓	✓	✓	

- Conformities : Norms EN55015, EN61547, EN61000-6-2, EN61000-6-4, RoHS, Reach, CE.
- Lifetime (MTBF*) : 100 000 hours.
- Operating temperature : -30°C à +70°C. (22°F to 158°F)
- IP protection standard : IP20.
- Weight : 95g (standard), 105g (with options).

(* : mean time between failure)

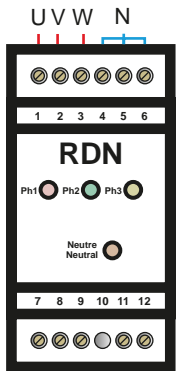
Advantages

- Insensitivity to vibrations, mechanical shocks.
- Resistance to moisture and water splashes.
- Electrical shocks resist : 5KV during 50µs.
- Immunity against magnetic fields.
- Assembly and disassembly easy, fast and secure .
- Exceptionally long life and unparalleled.
- Low power consumption and heat dissipation.



Electrical connections of the device

• Box : 11 screw terminals

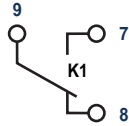


6 terminals on primary :

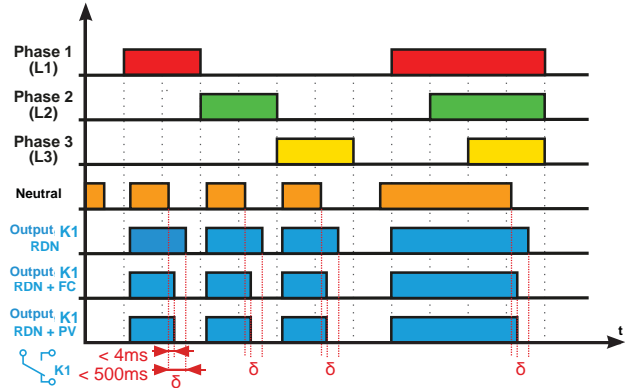
- 1 = Ph1 (U)
- 2 = Ph2 (V)
- 3 = Ph3 (W)
- 4, 5 & 6 = Neutral (N)

5 terminals on secondary :

- 7 = (CO) Closing contact K1
- 8 = (CF) Opening contact K1
- 9 = (CM) Common des contacts K1
- 10 = no connected
- 11 = V+, to the + of an optional LED lamp, kind "F"
- 12 = V-, to the - of an optional LED lamp, kind "F"



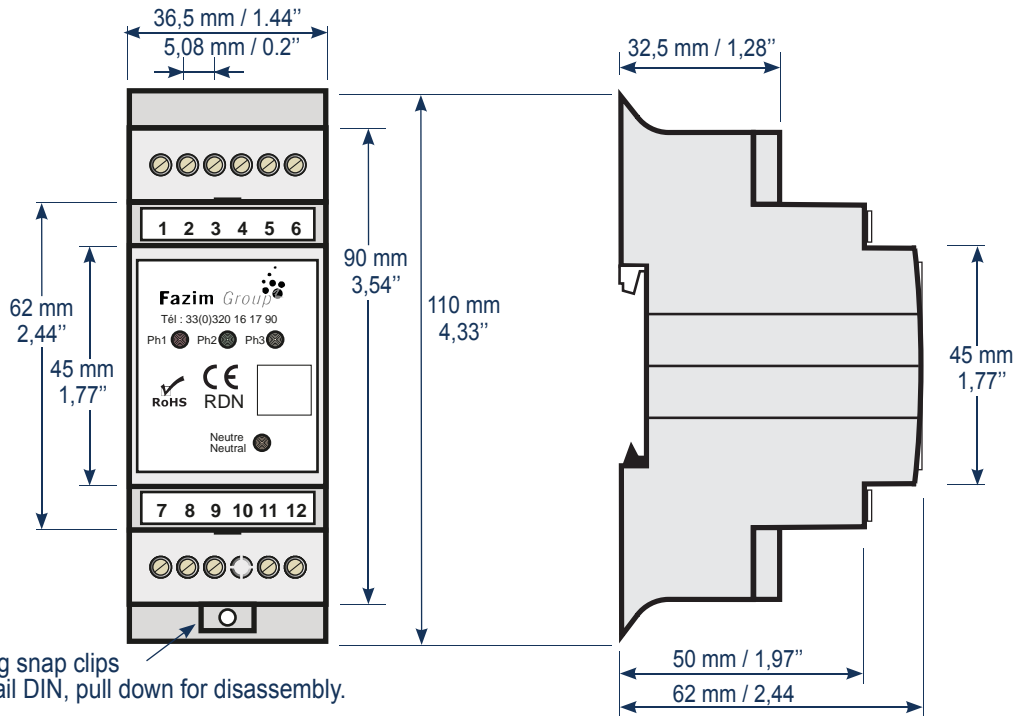
• Operating diagrams :



Mechanical specifications

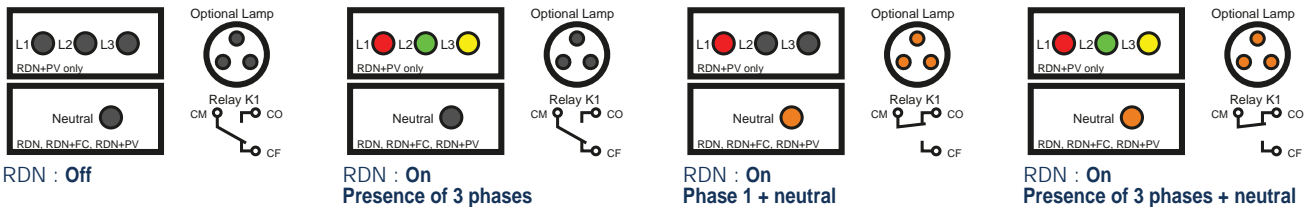
• Fixing : rail/wall clips

• Size : DIN Modulo 2



Fixing snap clips
On rail DIN, pull down for disassembly.

Working



Optional LED lamp: 12Vcc, 50mA max

Options & warranty

- Options : On request, other voltages, other frequencies for PV option. Option FC (fast control <math>< 4ms</math>), option PV (phase visualisation), option LED lamp, see the F range, in 8, 12, 22 and 30mm diameter, see also an another enclosure.
- Warranty : 24 months manufacturer. No terminal or other metallic thing must be welded or lose the guarantee.
- Recommendation : Cable section, more or equal to $1mm^2$. Cable ends must be finished with any crimp terminal.