

Case DIN Rail PTNTR

Three-phase BTA - Ø 22mm

Faz/engineering 
Innovative and industrial signage and applications

by **Fazim**/Group 



Reference :

PTNTR - Voltage - CA - Color(s) lamp

Example : PTNTR400CARRR

Specify options :

- Visualisation of neutral on lamp.
- LED Visualisation on box.
- Relay output : 3 phases présence.
- Relay output : Neutral presence.

Generalities

These enclosures, DIN M4 format, are designed for electrical panels for viewing, on a TBT LED lamp, the state of the phases (+ neutral in option), on a three-phase network. More than the FTTTR & FTPANTR, this device allows operation up 5kHz and a wide range of voltage 90 to 400Vac. It have 2 relays outputs in option.

Description

- **Enclosure** : Moulded in light grey UL94-V0 flame retardant polycarbonate, size Modulo 4 : 90 x 71 x 58mm. Base fits 35mm DIN rail or directly to flat surface, terminal identification by white gravopli label, IP20, Rohs.
- **LED Lamp** : IK10, IP67 in front face. 3 color LED : red (R), green (V), yellow (J), amber (I), white (Bc), orange (O) or blue (Be) high brightness + 1 transparent cap.
- **Connection** : 1x12 screw terminals on primary & 1x4 to 1x12 screw terminals on secondary according to the versions. Lug for the LED lamp.

Technical specifications

- **Supply voltage (+/- 20%), consumption, ... :**

Options	Voltages	Frequencies range	LED lamp	Relays output
PTNTR Standard	90 to 400 Vac	50 Hz to 5K Hz	✓ VPTTR 12Vdc common anodes	
Option neutral visualisation	10mA max Cos φ > 0.95 Inductive	50 Hz to 5K Hz	✓ VPTNTR 12Vdc common anodes	
relay options	--mA max Cos φ > 0.95 Inductive	50 Hz to 5K Hz	below 50Hz the lamp can be sparking or flashing according the frequency !	✓ 5 A / 250Vac

- **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.

(* : 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.
- Custom writing, custom silk-screen printing ability.

Configuration

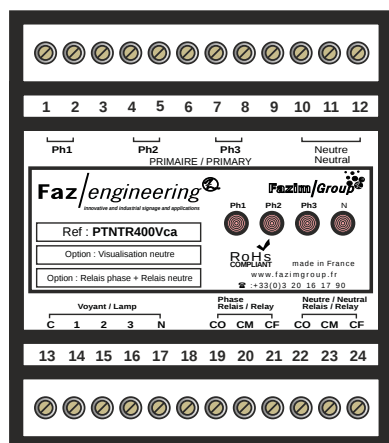
• Specifications and configurations of different available devices :

Models (Options)	Housing	Lamp VPTTR Ø22mm ; 3 LED	Lamp VPTNTR Ø22mm ; 4 LED	4 LED on converter	Relay K1 Output terminals	Relay K2 Output terminals
Standard Viewing 3 phases	M4	✓				
Viewing 3 phases + neutre	M4		✓			
Viewing 3 phases + neutral on case	M4		✓	✓		
1 relay 3 phases presence output	M4	✓			✓	
1 relay neutral presence output	M4		✓			✓
1 relay 3 phases + neutral presence output	M4		✓		✓	
2 relays 3 phases presence + neutral output	M4		✓		✓	✓
2 relays 3 phases presence + neutral output + viewing on case	M4		✓	✓	✓	✓

Note : All Cases have a self-supply between phases or between phase and neutral with a voltage variation very important.
Modifications or technical adjustments can be made on request (contact us).

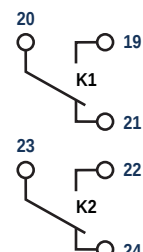
Electrical connections of the box

• Front view :



• Wiring according the options selected :

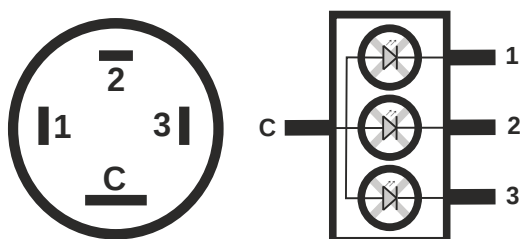
- | | |
|-------------------|--|
| 1 : Phase 1 (L1). | 13 : C : Lamp Common. |
| 2 : Phase 1 (L1). | 14 : 1 : to 1 of lamp (LED 1). |
| 3 : No connected. | 15 : 2 : to 2 of lamp (LED 2). |
| 4 : Phase 2 (L2). | 16 : 3 : to 3 of lamp (LED 3). |
| 5 : Phase 2 (L2). | 17 : N : to N of lamp (LED Neutral). (option) |
| 6 : No connected. | 18 : No connected. |
| 7 : Phase 3 (L3). | 19 : Opened contact, relay 3 Phases presence. (option) |
| 8 : Phase 3 (L3). | 20 : Common contact, relay 3 Phases presence. (option) |
| 9 : No connected. | 21 : Closed contact, relay 3 Phases presence. (option) |
| 10 : Neutral. | 22 : Opened contact, relay Neutral presence. (option) |
| 11 : Neutral. | 23 : Common contact, relay Neutral presence. (option) |
| 12 : Neutral. | 24 : Closed contact, relay Neutral presence. (option) |



Electrical connections of LED lamp

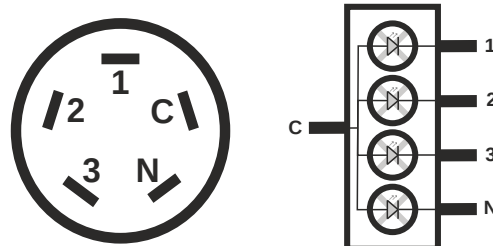
• 3 LED VPTTR lamp :

- 1 male lug 6.3mm (0.248") (Common)
- 3 male lugs 2.8mm (0.11") (1, 2, 3)
- Internal lamp wiring : common anodes
- Supply voltage : 12Vcc



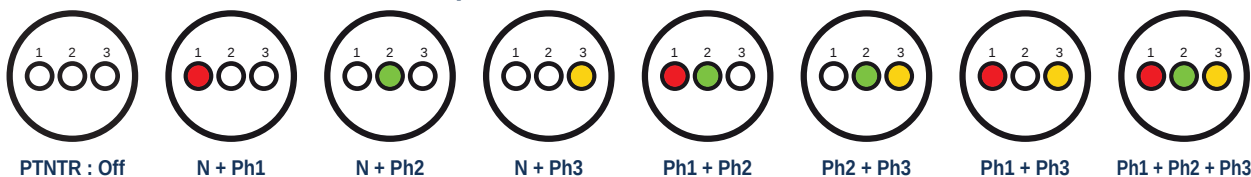
• 4 LED VPTNTR lamp :

- 5 male lugs 2.8mm (0.11") (Common, 1, 2, 3, N)
- Internal lamp wiring : common anodes
- Supply voltage : 12Vcc

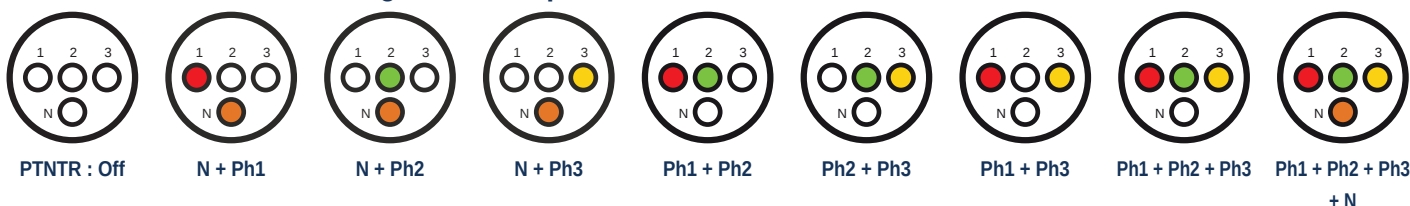


Working

• Standard version with 3 LED lamp :



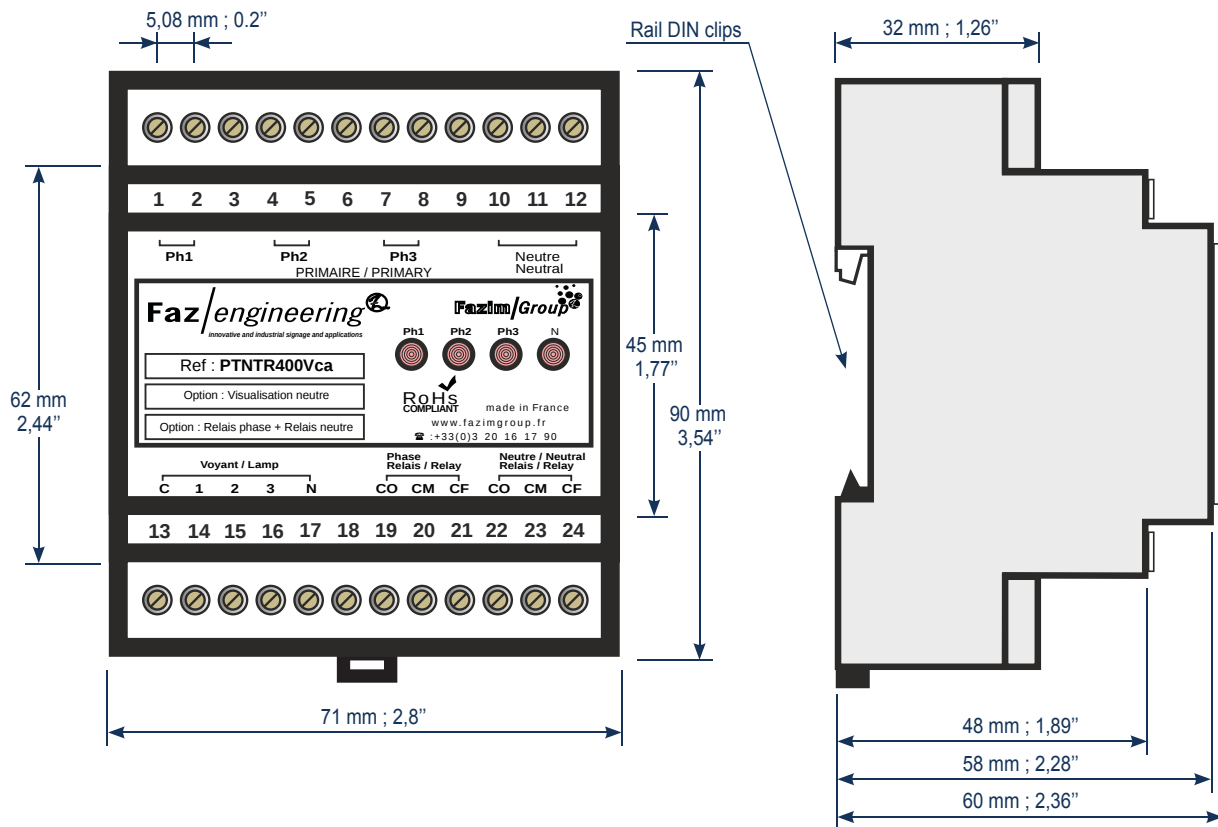
• Version with neutral viewing, 4 LED lamp :



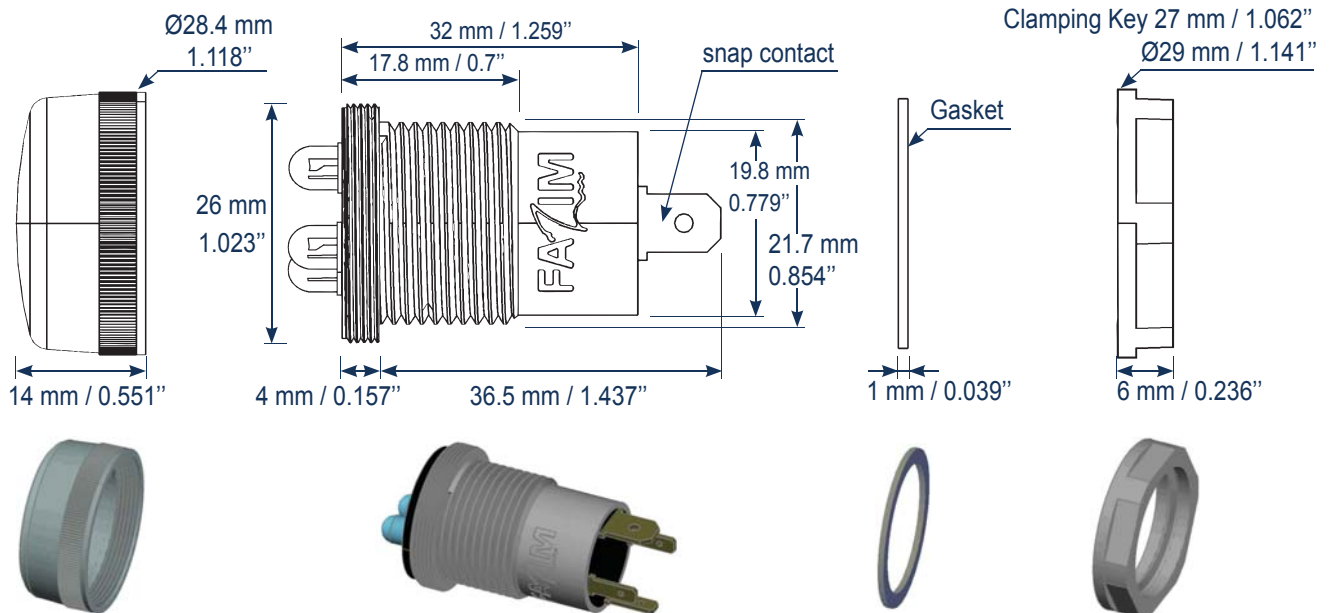
Mechanical specifications

• Fixing : rail/wall clips

• Size : DIN Modulo 4



• Fixing : standard drilling Ø 22mm +/-0.5mm ; (Ø 0.866").



Options & warranty

• **Options :** on request, other voltages, neutral viewing on lamp, 3 phases and neutral viewing on converter, output relay for 3 phases detection, output relay for neutral detection, output relay for 3 phases and neutral detection, tailor-made silkscreen, other sizes of housing.

• **Warranty :** 24 months manufacturer. No terminal or other metallic thing must be welded or lose the guarantee. The device should not be dismantled.

• **Recommendation :** Cable section, 1mm² to 2.5m² (AWG17 to AWG13). Cable ends must be finished with any crimp terminal.