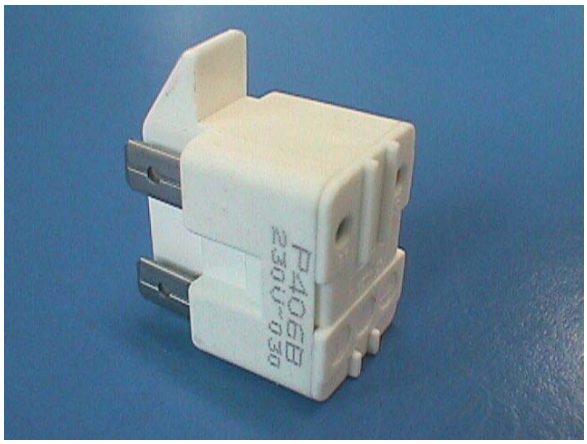
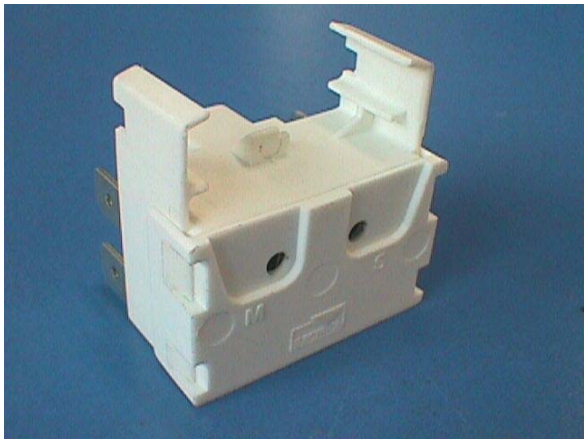
PTC Start Relay P Type





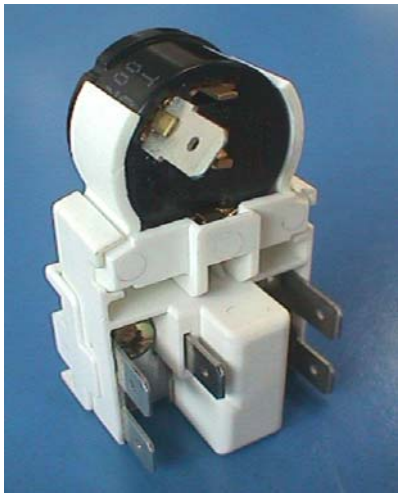
ADVANTAGES OF PTC STARTING

The primary advantage of the PTC relay is that it allows a strong current flow through the start winding of the motor during the initial start.
Appropriate motor design can benefit from savings in the start winding and from the energy efficiency improvements obtained with a run capacitor.
One PTC start relay usually fits a complete range of compressors, thereby reducing inventory, part numbering, and planning requirements.

ELECTRICA P SERIES PTC STARTING RELAY

P Series PTC Start Relays are compact components, ideally suited for the starting of hermetic compressors used in refrigerators, freezers and same commercial application.

P relay incorporates a PTC (Positive Temperature Coefficient) ceramic pellet with a low, controlled resistance value at ambient temperature, which allows the motor to start.
After a short delay the PTC pellet increases its resistance considerably, and reduces motor stating current to a very low value, which is anyway sufficient to keep the PTC relay in a non-operating condition as long as the motor is running. When the motor is switched off, after a cooling down period (typically 3 minutes at 25°C ambient temperature) the PTC pellet resistance decreases to its original low value. The relay is ready for another start.



P relay combined unit has been specifically designed to be coupled with Electrica T series ¾" motor protectors in one compact package. It offers the user advantages to reduce the number of components and minimise assembly costs on the compressors.

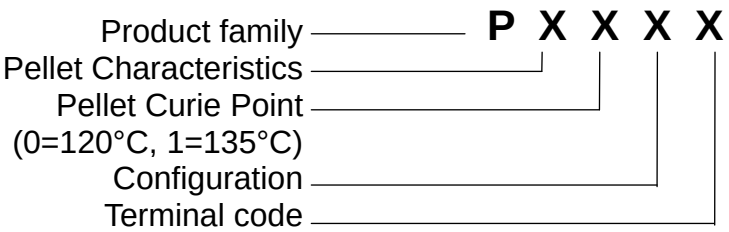
GENERAL DATA

- Plug-in on three pins hermetic connector
- Rated voltage 115 or 230 VA.C.
- Load controlled Resistive and Inductive
- For Normal pollution condition (according to EN60730)
- Case material: thermoplastic compound
  PTI 250V – UL94 V0 – Rated 140°C
- Max switch head temperature 80°C
- Max mounting face temperature 80°C
- Endurance 100,000 cycles
- Terminals: 4.8 and 6.3 mm quick-connect.
  Other options available upon request.

APPROVALS

- ENEC IMQ – EF959
- UL E51436

CODE EXPLANATION



PELLET CHARACTERISTICS

Type	Curie Point °C	Resistance Ohm	Vmax V	Imax A	Diameter mm	Thickness mm
40	120	14 ± 30%	350	8	20	3.2
L1	135	4.7 ± 30%	180	12	16	2.5
R1	135	6.8 ± 30%	200	10	16	2.5
N1	135	10 ± 30%	200	8	16	2.5
D1	135	15 ± 30%	300	8	16	2.5
E1	135	22 ± 30%	320	7	16	2.5
F1	135	33 ± 30%	355	6	16	2.5
G1	135	47 ± 30%	400	5	16	2.5

For different characteristics please contact the factory.

CONFIGURATION (See drawings on next page)

0	Single relay, for use with/without run capacitor
7	Single relay with terminal board
8	Combined unit with terminal board and Top mounted protector

TERMINAL CODE

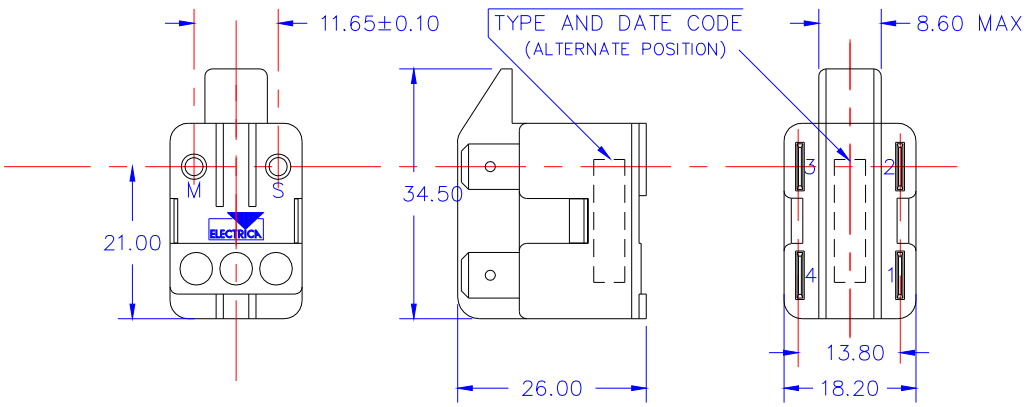
Code	Terminal position						Terminal type
	1	**2**	**3**	**4**	**N**	**L**	
A	♣	♣	♣	♣			♣ = 6.3x0.8 male quick-connect terminal. ♦ = 4.8x0.8 male quick-connect terminal. ♥ = M3.5 screw terminal (only for connection with specially prepared cables) and 6.3x0.8 twin male quick-connect terminal. ♠ = M3.5 screw terminal (only for connection with specially prepared cables) and 4.8x0.8 twin male quick-connect terminal.
B	♣	♣	♣				
C	♣	♣					
D		♣	♣				
E		♣					
F	♦	♦	♦	♦			
G	♦	♦	♦				
H	♦	♦					
J		♦	♦				
K		♦					
M			♣				
N					♥	♥	
P					♠	♠	

Notice

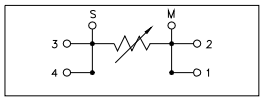
PTC elements may be degraded by excessive humidity, especially saline, and by pollution, especially Cl and Ph. Carefully evaluate the use of PVC parts near PTC elements.

OUTLINE DRAWINGS (Dimensions in millimeters)

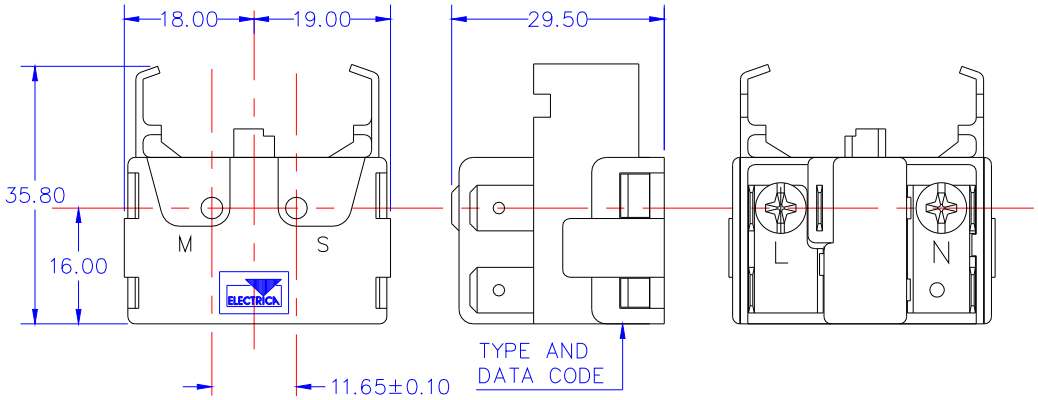
CONFIGURATION "0"



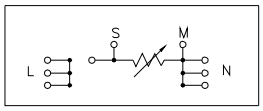
STANDARD WIRING



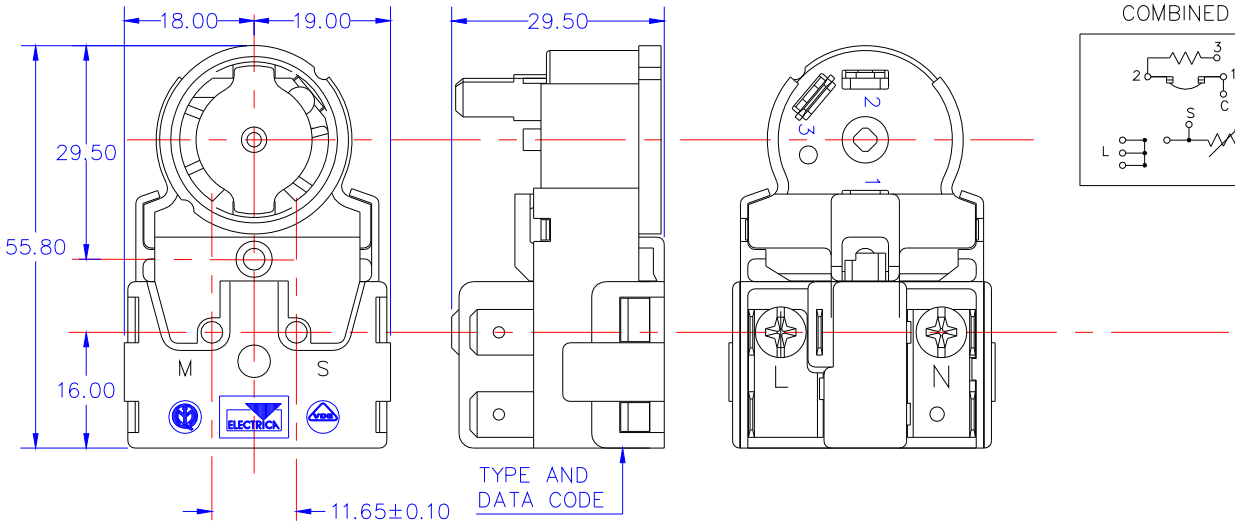
CONFIGURATION "7"



RELAY WITH
TERMINAL BOARD



CONFIGURATION "8"



COMBINED UNIT

For any different configuration, contact the Factory

Electrica s.r.l. - via privata Della Torre, 24 - 20127 Milano - Italy
Tel. +39 02 2892641 Fax +39 02 2827511
www.electrica.it **info@electrica.it**