

# Pendant stations

PO2 - PTRM - PO3 - DC16 - PL - DC30 - TLP Series

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TECHNO-CONTROL EQUIPMENT



Push button stations for small hoist applications, for control circuits in both single or double row versions, for control and direct switching power circuits, for tail lifts control.

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# Pendant stations

P02 - PTRM - P03 - DC16 - PL - DC30 - TLP Series

General characteristics

According to the CE89/392 directives appendix IIB concerning machinery

## GIOVENZANA

declares that P02 - P03 - PL - PLB pendant stations comply with the following standards:

## Harmonised standards

EN292 part 1 and 2 (machine safety)  
UNI EN ISO 9001  
EN60529 (IP rating)

## Standards and technical specifications

IEC 947-5-1 (low voltage equipment)  
FEM 9.941 (operators' designation)

## As stated in appendix V of the CE directives with regards to machinery

The technical documentation is held by the manufacturer.

The company Giovenzana, leader in lifting equipment control accessories, has designed the P02 - P03 - PL - PLB series pendant stations according to the relevant International standards

These new product series are the end result of a close investigation with regards to the operator's needs and requirements:

- Adequate cabling space
- Ease of use thanks to a light and user friendly pendant station
- Versatility of assembly allowing quick and easy replacement of the 22 Ø operators and their Pegasus contact blocks
- Each pendant station is provided with a new generation EN418 emergency stop incorporating a snap action actuation that prevents halting the machinery before the mushroom is in the locked position. Contacts are "positive opening" type.
- The following contacts are supplied as standard:  
1NO for the movement (FEM 9.941)  
1NC for emergency (EN418)  
1NO+1NO for double speed  
Optional accessories are always supplied separately and installed by the end user.

## GENERAL CHARACTERISTICS

- Double insulated enclosures in thermoplastic self-extinguishing material
- IP65 rating according to EN60529
- Operating temperature -25 +70 °C
- Available from 2 up to 14 holes - 22 Ø - on single or double row
- Cable entry: P02 - PTRM - P03 - PL with variable section cable sleeve
- DC16 - DC30 - TLP with cable clamp
- Mechanical life: push buttons and rotary switches
- 1 mil. operations
- Latched emergency stops
- 0,3 mil. operations

## CONTACT BLOCK CHARACTERISTICS

- VO UL94 self-extinguishing material
- Rated thermal current: 16A
- Rated insulation voltage: 690V
- Insulation category: Group CV VDE 0110
- Contact impedance: ≤25 MΩ
- Slow break self cleaning double gap contact block - Positive opening NC contact block
- Tripping force: 4N
- Terminal protection rating: IP20 - EN60529
- Max contact No.: 3
- UL A600 - Q 600 certified

# Pendant stations

P02-PTRM Series for small hoist applications

IP65 □



TECHNO-CONTROL EQUIPMENT

## P02

2 directions mechanically interlocked

| ENGRAVING | DESCRIPTION  | REFERENCE NO. | WEIGHT gr | DIMENSIONS |
|-----------|--|---------------|-----------|------------|
|           | For single-speed motor control<br>No. 2 push buttons with 1 NO contact         | P02.1         | 230       |            |
|           | No. 2 push buttons with 2 NO contacts  | P02.2         | 250       |            |
|           | No. 2 push buttons with 1NC+1NO contacts                                       | P02.4         | 250       |            |
|           | For two-speed motor control<br>No. 2 push buttons with NO contacts             | P02.D2        | 250       |            |
|           |  |               |           |            |
|           | For 1kW single-phase motor control<br>No. 2 push buttons with 1NC+2NO contacts | P02.CD        | 230       |            |

|  |   |        |     |  |
|--|---|--------|-----|--|
|  | For single-speed motor control<br>No. 1 Emergency stop ø 30 turn to release EN418 | P02.RM | 230 |  |
|  | No. 1 two way and off switch with spring return Auxiliary<br>16A - 250V ac 1/2 HP |        |     |  |

## PTRM

| ENGRAVING | DESCRIPTION  | REFERENCE NO. | WEIGHT gr | DIMENSIONS |
|-----------|--|---------------|-----------|------------|
|           | For single-speed motor control<br>Provision for capacitor 45x90 Ø max<br>No. 1 Emergency stop ø 30 turn to release EN418 | PTRM          | 230       |            |
|           | No. 1 two way and off switch with spring return Auxiliary<br>16A - 250V ac 1/2 HP  |               |           |            |

# Pendant stations

## P03 Series for small hoist applications

IP65 □

# Pendant stations

## DC16 Series for small hoist applications

IP65 □



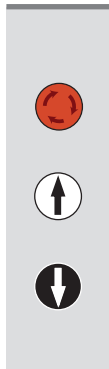
TECHNO-CONTROL EQUIPMENT

### P03

2 directions mechanically interlocked



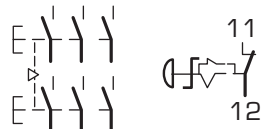
#### ENGRAVING



#### DESCRIPTION

For single-speed motor control  
No. 1 Emergency stop  
ø 30 turn to release  
EN418 with:

No. 2 push buttons with 1 NO contact  
No. 2 push buttons with 2 NO contacts  
No. 2 push buttons with 3 NO contacts



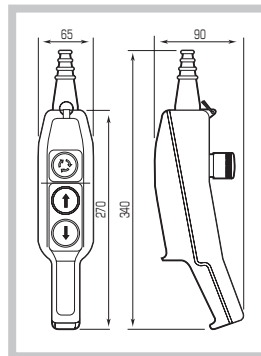
#### REFERENCE NO.

**P03.1**  
**P03.2**  
**P03.3**

#### WEIGHT gr

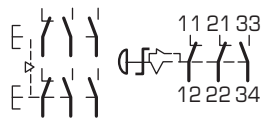
440  
450  
460

#### DIMENSIONS



For 1kW single-phase motor control  
No. 1 Emergency stop  
ø 30 turn to release  
EN418 with:

No. 2 push buttons with 1NC+2NO contacts



#### REFERENCE NO.

**P03CD**

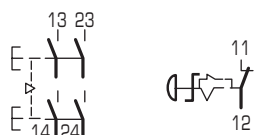
#### WEIGHT gr

460



For two-speed motor control  
No. 1 Emergency stop  
ø 30 turn to release  
EN418 with:

No. 2 push buttons with 1NC+2NO contacts



#### REFERENCE NO.

**P03D2**

#### WEIGHT gr

460



For single-speed motor control  
No. 1 90° angle latched  
key switch Q-1 with 1 NO  
contact and:

No. 2 push buttons with 1 NO contact



#### REFERENCE NO.

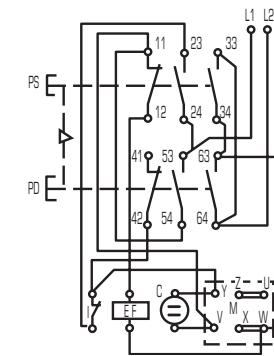
**P03CH**

#### WEIGHT gr

460

### GENERAL CHARACTERISTICS

- Double insulated ABS enclosures
- IP65 protection rating according to IEC/EN 60529
- Ambient temperature: operating -25° +70° °C  
storage -40° +70° °C
- Double gap slow break contacts
- Cable entry with M25 cable clamp
- Rated insulation voltage: Ui 690V
- Rated thermal current Ith: 16A
- Rated operating power: 400V ac -1kW



### 1kW DIRECT SWITCHING MOTOR WIRING DIAGRAM

PS UP push button

PD DOWN push button

I Top limit switch

M Motor

C Capacitor

EF Electric break

2 directions mechanically interlocked



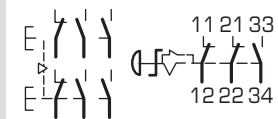
#### ENGRAVING



#### DESCRIPTION

For 1kW single-phase  
motor control  
No. 1 Emergency stop  
ø 30 turn to release  
EN418 with 2NC+1NO  
contacts and:

No. 2 push buttons with 1NC+2NO contacts



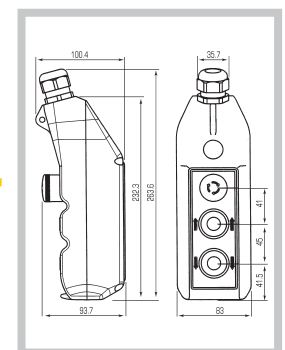
#### REFERENCE NO.

**DC16**

#### WEIGHT gr

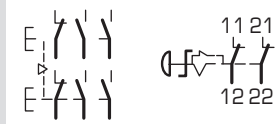
470

#### DIMENSIONS



For 1kW single-phase  
motor control  
No. 1 Emergency stop  
ø 30 turn to release  
EN418 with 2NC  
contacts and:

No. 2 push buttons with 1NC+2NO contacts



#### REFERENCE NO.

**DC16I**

#### WEIGHT gr

490

# Pendant stations

## PL Series for control circuits

IP65 □ Single row





# Pendant stations

## PLB Series for control circuits





IP65 □ Double row



TECHNO-CONTROL EQUIPMENT

|   | PUSH BUTTONS | DESCRIPTION   | REFERENCE NO.            | WEIGHT gr |     |
|---|--------------|---|--------------------------|-----------|-----|
|    | 4+1          | For single-speed motor control<br>4 mechanically interlocked between pairs<br>+ 1 Emergency stop ø 30 turn to release EN418                     | PL05                     | 560       |     |
|   | 4+1          | For two-speed motor control ▶▶<br>4 mechanically interlocked between pairs<br>+ 1 Emergency stop ø 30 turn to release EN418                     | No. of 2-speed movements |           |     |
|   |              |   | 2                        | PL05D2    | 590 |
|   |              | 4   | PL05D4                   | 620       |     |
|   | 6+1          | For single-speed motor control<br>6 mechanically interlocked between pairs<br>+ 1 Emergency stop ø 30 turn to release EN418                     | PL07                     | 740       |     |
|   | 6+1          | For two-speed motor control ▶▶<br>6 mechanically interlocked between pairs<br>+ 1 Emergency stop ø 30 turn to release EN418                     | No. of 2-speed movements |           |     |
|   |              |   | 2                        | PL07D2    | 770 |
|   |              |   | 4                        | PL07D4    | 800 |
|   |              | 6   | PL07D6                   | 830       |     |
|  | 6+2          | For single-speed motor control<br>6 mechanically interlocked between pairs<br>+ 1 Start/Alarm<br>+ 1 Emergency stop ø 30 turn to release EN418  | PL08                     | 830       |     |
|   | 6+2          | For two-speed motor control ▶▶<br>6 mechanically interlocked between pairs<br>+ 1 Start/Alarm<br>+ 1 Emergency stop ø 30 turn to release EN418  | No. of 2-speed movements |           |     |
|   |              |   | 2                        | PL08D2    | 860 |
|   |              |   | 4                        | PL08D4    | 890 |
|   |              | 6   | PL08D6                   | 920       |     |
|  | 8+2          | For single-speed motor control<br>8 mechanically interlocked between pairs<br>+ 1 Start/Alarm<br>+ 1 Emergency stop ø 30 turn to release EN418  | PL10                     | 990       |     |
|   | 10+2         | For single-speed motor control<br>10 mechanically interlocked between pairs<br>+ 1 Start/Alarm<br>+ 1 Emergency stop ø 30 turn to release EN418 | PL12                     | 1.140     |     |

| DIMENSIONS   |               |     |     | For the push button designation and symbols please see page 123<br>Colour: |
|--------------|---------------|-----|-----|--|
| PUSH BUTTONS | REFERENCE NO. | Amm | Bmm |  |
| 5            | PL05          | 345 | 288 | □ Black and white<br>■ Start/Alarm green<br>■ Emergency red                |
| 7            | PL07          | 495 | 358 |  |
| 8            | PL08          | 530 | 393 |  |
| 10           | PL10          | 640 | 463 |  |
| 12           | PL12          | 710 | 533 |  |

|   | PUSH BUTTONS | DESCRIPTION  | REFERENCE NO.  | WEIGHT gr |       |
|---|--------------|--|--|-----------|-------|
|    | 2+2          | For single-speed motor control<br>2 mechanically interlocked<br>+ 1 Start/Alarm<br>+ 1 Emergency stop ø 30 turn to release EN418               | PLB04  | 560       |       |
|   | 2+2          | For two-speed motor control<br>2 mechanically interlocked<br>+ 1 Start/Alarm<br>+ 1 Emergency stop ø 30 turn to release EN418                  | No. of 2-speed movements   |           |       |
| 2   |              |  | PLB04D2  | 590       |       |
|   | 4+2          | For single-speed motor control<br>4 mechanically interlocked between pairs<br>+ 1 Start/Alarm<br>+ 1 Emergency stop ø 30 turn to release EN418 | PLB06  | 560       |       |
|   | 4+2          | For two-speed motor control<br>4 mechanically interlocked between pairs<br>+ 1 Start/Alarm<br>+ 1 Emergency stop ø 30 turn to release EN418    | No. of 2-speed movements   |           |       |
|   |              |  | 2  | PLB06D2   | 690   |
|   |              |  | 4  | PLB06D4   | 720   |
|  | 6+2          | For single-speed motor control<br>6 mechanically interlocked between pairs<br>+ 1 Start/Alarm<br>+ 1 Emergency stop ø 30 turn to release EN418 | PLB08  | 840       |       |
|   | 6+2          | For two-speed motor control<br>6 mechanically interlocked between pairs<br>+ 1 Start/Alarm<br>+ 1 Emergency stop ø 30 turn to release EN418    | No. of 2-speed movements   |           |       |
|   |              |  | 2  | PLB08D2   | 870   |
|   |              |  | 4  | PLB08D4   | 900   |
|   |              | 6  | PLB08D6  | 1.030     |       |
|  |              | For single-speed motor control<br>No of operators mechanically interlocked   |  |           |       |
|   | 8+2          | 8  | + 1 Start/Alarm<br>+ 1 Emergency stop ø 30 turn to release EN418 | PLB10     | 1.150 |
|   | 10+2         | 10   |  | PLB12     | 1.270 |
|   | 12+2         | 12   |  | PLB14     | 1.390 |

| DIMENSIONS   |               |     |     | For the push button designation and symbols please see page 123<br>Colour: |
|--------------|---------------|-----|-----|--|
| PUSH BUTTONS | REFERENCE NO. | Amm | Bmm |  |
| 4            | PLB04         | 345 | 185 | □ Black and white<br>■ Start/Alarm green<br>■ Emergency red                |
| 6            | PLB06         | 399 | 239 |  |
| 8            | PLB08         | 453 | 293 |  |
| 10           | PLB10         | 547 | 347 |  |
| 12           | PLB12         | 601 | 401 |  |
| 14           | PLB14         | 655 | 455 |  |

# Pendant stations

## PL series for control circuits

IP65 □ Enclosures

# Pendant stations


## For control and direct switching power circuits

Accessories




TECHNO-CONTROL EQUIPMENT

### SINGLE ROW

|    | NO OF HOLES  | CABLE ENTRY Ø | REFERENCE NO. | WEIGHT gr | MIN. PACK QTY. |
|----|--|---------------|---------------|-----------|----------------|
|    |  | 5             | 7...18        | PL05K     | 410            |
| 7  |  | 9...21        | PL07K         | 540       | 1              |
| 8  |  |               | PL08K         | 600       | 1              |
| 10 |  |               | PL10K         | 700       | 1              |
| 12 |  |               | PL12K         | 800       | 1              |

### DOUBLE ROW

|    | NO OF HOLES   | CABLE ENTRY Ø | REFERENCE NO. | WEIGHT gr | MIN. PACK QTY. |
|----|---|---------------|---------------|-----------|----------------|
|    |  | 4             | 9...21        | PLB04K    | 410            |
| 6  |   | PLB06K        |               | 510       | 1              |
| 8  |   | PLB08K        |               | 610       | 1              |
| 10 |   | 12...24       | PLB10K        | 710       | 1              |
| 12 |   |               | PLB12K        | 810       | 1              |
| 14 |   |               | PLB14K        | 910       | 1              |

Enclosures are supplied with accessories with the exception of contact blocks and operators which must be purchased separately. Refer to page 121 for more information. For assembly instructions see page 124-125.

| CONTACT BLOCKS  |                 | MULTI-SPEED CONTACT BLOCKS  |   | LAMP HOLDERS  |                      | LENS CAP   |  |
|---|-----------------|---|---|---|----------------------|--|--|
|    | 1 NC<br>1 NO    | PL004001<br>PL004002  |    | 2-SPEED<br>1NO+1NO PROGRESSIVE  | PL004010             |   | BA9s<br>PL004007   |
|   |                 |   |   |   |                      |   | <span style="color:red">■</span> 1 <span style="color:green">■</span> 2<br><span style="color:yellow">■</span> 3 <span style="color:blue">■</span> 4 <span style="color:black">■</span> 5<br>PL00800 |
| KEY SWITCH  |                 | ROTARY SWITCH   |   | MUSHROOM OPERATOR Ø 30<br>TURN TO RELEASE EN418                                       |                      | MUSHROOM OPERATOR<br>Ø 40 EN418  |  |
|   | 0-1<br>1-0-2    | PL006001<br>PL006002  |   | 0-1<br>1-0-2  | PL007001<br>PL007002 |  | WITH VISION<br>STANDARD<br>PL013001<br>PL013002  |
|   |                 |   |   |   |                      |  | PL013003   |
| PUSH BUTTONS  |                 | COUPLING PLATE  |   | INTERLOCK   |                      |  |  |
| <b>COLOUR</b>   | <b>REF. NO.</b> |  |  |   |                      |  |  |
| <span style="color:blue">■</span>   | PL005034        | 2 HOLES<br>3 HOLES  | PL003001<br>PL003002  | TOP<br>BOTTOM   | PL011001<br>PL011002 |  |  |
| <span style="color:black">■</span>  | PL005035        |   |   |   |                      |  |  |
| <span style="color:red">■</span>  | PL005036        |   |   |   |                      |  |  |
| <span style="color:green">■</span>  | PL005037        |   |   |   |                      |  |  |
| <span style="color:blue">■</span>   | PL005038        |   |   |   |                      |  |  |
| With engraving  | PL0050...*      |   |   |   |                      |  |  |
| * See page 123  |                 |   |   |   |                      |  |  |
| CABLE CLAMP LEVER   |                 | VERSIONS  |   | CABLE SLEEVE  |                      |  |  |
|  | PL012001        | P02 - PTRM<br>For 7...14 Ø cable  | 12906011  |  |                      |  |  |
|   |                 | P03 - PLO5<br>For 7...18 Ø cable  | 12906006  |   |                      |  |  |
|   |                 | PL07...PL12<br>PLB04-PLB06<br>For 9...21 Ø cable                                      | 12906004  |   |                      |  |  |
|   |                 | PLB08-PLB14<br>For 12...24 Ø cable  | 12906005  |   |                      |  |  |

# Pendant stations

For control and direct switching power circuits  
Composition

# Pendant stations

For control and direct switching power circuits  
Engravings



TECHNO-CONTROL EQUIPMENT

| PL SERIES<br>STANDARD VERSIONS |                     |                       |             | PL07              | PL08              | PL08D2              | PL08D4                      | PL08D6                      | PL10              | PL12           |
|--------------------------------|---------------------|-----------------------|-------------|-------------------|-------------------|---------------------|-----------------------------|-----------------------------|-------------------|----------------|
| STOP                           | STOP                | STOP                  | STOP        | STOP              | START             | START               | START                       | START                       | START             | START          |
| LIFT UP                        | 1-2 SPEED LIFT UP   | 1-2 SPEED LIFT UP     | LIFT UP     | LIFT UP           | LIFT UP           | 1-2 SPEED LIFT UP   | 1-2 SPEED LIFT UP           | LIFT UP                     | LIFT UP           | LIFT UP        |
| LIFT DOWN                      | 1-2 SPEED LIFT DOWN | 1-2 SPEED LIFT DOWN   | LIFT DOWN   | LIFT DOWN         | LIFT DOWN         | 1-2 SPEED LIFT DOWN | 1-2 SPEED LIFT DOWN         | LIFT DOWN                   | LIFT DOWN         | LIFT DOWN      |
| HOIST RIGHT                    | HOIST RIGHT         | 1-2 SPEED HOIST RIGHT | HOIST RIGHT | O/H CRANE FORWARD | O/H CRANE FORWARD | O/H CRANE FORWARD   | 1-2 SPEED O/H CRANE FORWARD | 1-2 SPEED O/H CRANE FORWARD | O/H CRANE FORWARD | LIFT UP FAST   |
| HOIST LEFT                     | HOIST LEFT          | 1-2 SPEED HOIST LEFT  | HOIST LEFT  | O/H CRANE REVERSE | O/H CRANE REVERSE | O/H CRANE REVERSE   | 1-2 SPEED O/H CRANE REVERSE | 1-2 SPEED O/H CRANE REVERSE | O/H CRANE REVERSE | LIFT DOWN FAST |

| PLB SERIES<br>STANDARD VERSIONS |                   |                             |                             | PLB06D4           |                     | PLB08D4                     |                             | PLB14               |                      | PLB10             |                   |
|---------------------------------|-------------------|-----------------------------|-----------------------------|-------------------|---------------------|-----------------------------|-----------------------------|---------------------|----------------------|-------------------|-------------------|
| START                           | STOP              | START                       | STOP                        | START             | STOP                | START                       | STOP                        | START               | STOP                 | START             | STOP              |
| LIFT UP                         | LIFT DOWN         | 1-2 SPEED LIFT UP           | 1-2 SPEED LIFT DOWN         | 1-2 SPEED UP      | 1-2 SPEED DOWN      | 1-2 SPEED O/H CRANE FORWARD | 1-2 SPEED O/H CRANE REVERSE | 1-2 SPEED LIFT UP   | 1-2 SPEED LIFT DOWN  | UP FAST           | DOWN FAST         |
| LIFT UP                         | LIFT DOWN         | LIFT UP                     | LIFT DOWN                   | LIFT UP           | LIFT DOWN           | 1-2 SPEED O/H CRANE FORWARD | 1-2 SPEED O/H CRANE REVERSE | UP FAST             | DOWN FAST            | LIFT UP           | LIFT DOWN         |
| O/H CRANE FORWARD               | O/H CRANE REVERSE | 1-2 SPEED O/H CRANE FORWARD | 1-2 SPEED O/H CRANE REVERSE | O/H CRANE UP FAST | O/H CRANE DOWN FAST | 1-2 SPEED O/H CRANE FORWARD | 1-2 SPEED O/H CRANE REVERSE | O/H CRANE FORWARD   | O/H CRANE REVERSE    | O/H CRANE FORWARD | O/H CRANE REVERSE |
| HOIST LEFT                      | HOIST RIGHT       | HOIST LEFT                  | HOIST RIGHT                 | HOIST LEFT        | HOIST RIGHT         | 1-2 SPEED O/H CRANE FORWARD | 1-2 SPEED O/H CRANE REVERSE | O/H CRANE LEFT FAST | O/H CRANE RIGHT FAST | HOIST LEFT        | HOIST RIGHT       |

## FEM 9.941 STANDARD

| UP       | DOWN     | FORWARD  | REVERSE  | LEFT     | RIGHT    | SPIN LEFT | SPIN RIGHT | GREEN START | GREEN START ALARM |
|----------|----------|----------|----------|----------|----------|-----------|------------|-------------|-------------------|
| PL005004 | PL005019 | PL005012 | PL005027 | PL005023 | PL005008 | PL005031  | PL005016   | PL005001    | PL005002          |
| PL005005 | PL005020 | PL005013 | PL005028 | PL005024 | PL005009 | PL005032  | PL005017   | ALARM       | BLUE              |
| PL005006 | PL005021 | PL005014 | PL005029 | PL005025 | PL005010 | PL005033  | PL005018   | WHITE       | BLACK             |
| PL005007 | PL005022 | PL005015 | PL005030 | PL005026 | PL005011 |           |            | RED         | GREEN             |
|          |          |          |          |          |          |           |            | PL005037    | PL005038          |

LASER ENGRAVING: Optional engravings can be made to order according to special customer specification (min. quantity applies)

# Pendant stations

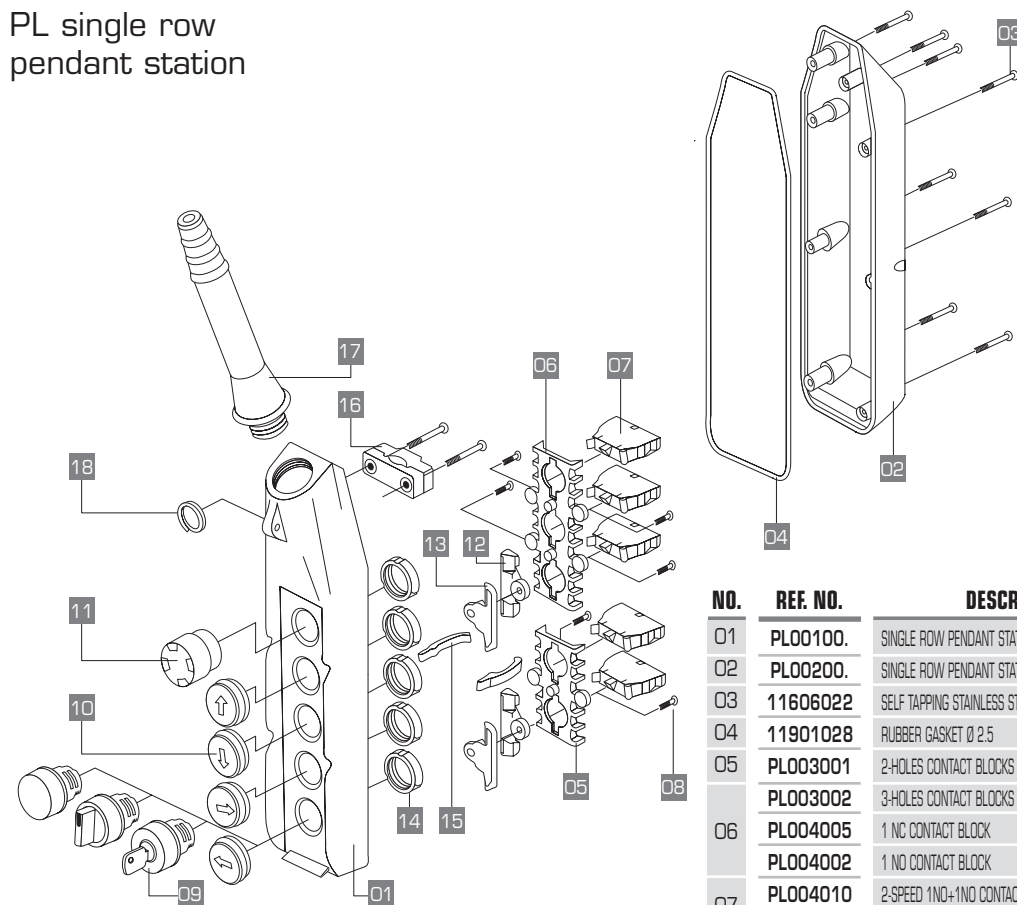
For control and direct switching power circuits  
Assembly



TECHNO-CONTROL EQUIPMENT

## PL SERIES STANDARD VERSIONS

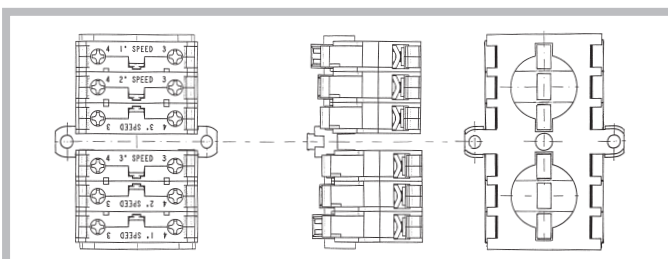
PL single row  
pendant station



### ASSEMBLY INSTRUCTION FOR 1-2-SPEED CONTACT BLOCKS

**PL004010**

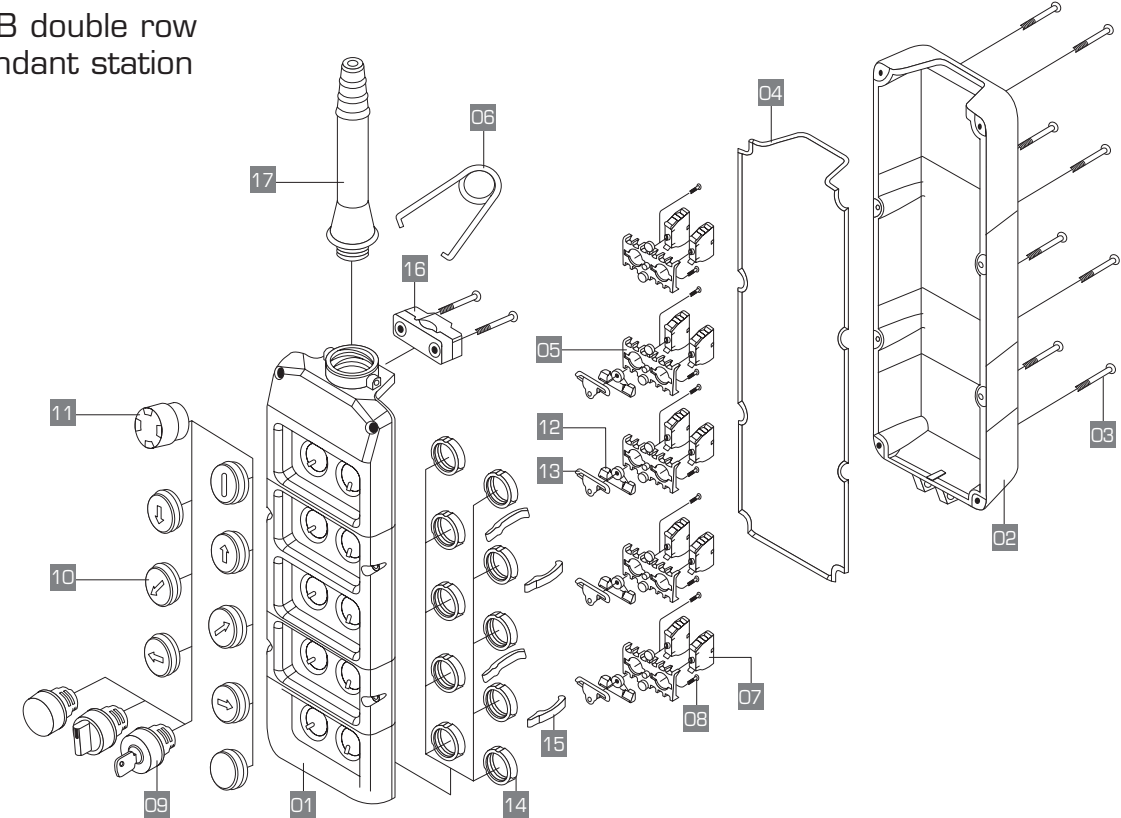
PL004003 1-SPEED  
PL004004 2-SPEED



| NO. | REF. NO. | DESCRIPTION                                     | QTY. |
|-----|----------|---|------|
| 01  | PL00100. | SINGLE ROW PENDANT STATION COVER...PUSH BUTTONS | 1    |
| 02  | PL00200. | SINGLE ROW PENDANT STATION BASE...PUSH BUTTONS  | 1    |
| 03  | 11606022 | SELF TAPPING STAINLESS STEEL SCREW 4X30         | ..   |
| 04  | 11901028 | RUBBER GASKET Ø 2.5                             | MT.. |
| 05  | PL003001 | 2-HOLES CONTACT BLOCKS SUPPORT                  | ..   |
|     | PL003002 | 3-HOLES CONTACT BLOCKS SUPPORT                  | ..   |
| 06  | PL004005 | 1 NO CONTACT BLOCK                              | ..   |
|     | PL004002 | 1 NO CONTACT BLOCK                              | ..   |
| 07  | PL004010 | 2-SPEED 1NO+1NO CONTACT BLOCK                   | ..   |
|     | PL004007 | LAMP HOLDER                                     | ..   |
| 08  | 11607007 | SELF TAPPING SCREW 3.9X13                       | ..   |
|     | PL00700. | ROTARY SWITCH                                   | ..   |
| 09  | PL00600. | KEY SWITCH                                      | ..   |
|     | PL00800. | PILOT LIGHT                                     | ..   |
| 10  | PL0050.. | ENGRAVED PUSH BUTTONS                           | ..   |
| 11  | PL013001 | MUSHROOM OPERATOR TURN TO RELEASE WITH VISION   | 1    |
| 12  | PL011002 | BOTTOM MECHANICAL INTERLOCK                     | ..   |
| 13  | PL011001 | TOP MECHANICAL INTERLOCK                        | ..   |
| 14  | 11705100 | M22 ZAMA LOCK NUTS                              | ..   |
| 15  | PL012001 | CABLE CLAMP LEVER                               | ..   |
|     | 12904014 | CABLE CLAMP                                     | 1    |
| 16  | 12906006 | PL05 CABLE SLEEVE                               | ..   |
|     | 12906004 | PL07 - PL08 CABLE SLEEVE                        | ..   |
| 17  | 12906005 | PL10 - PL12 CABLE SLEEVE                        | ..   |
| 18  | 12003009 | SUNSPENSION RING                                | 1    |

## PLB SERIES STANDARD VERSIONS

PLB double row  
pendant station



| NO. | REF. NO.    | DESCRIPTION                                     | QTY. |
|-----|-------------|---|------|
| 01  | 1170807.    | DOUBLE ROW PENDANT STATION COVER...PUSH BUTTONS | 1    |
| 02  | 1171004.    | DOUBLE ROW PENDANT STATION BASE...PUSH BUTTONS  | 1    |
| 03  | 11606022    | SELF TAPPING STAINLESS STEEL SCREW 4X30         | ..   |
| 04  | 11901035    | RUBBER GASKET Ø 2                               | MT.. |
| 05  | PL003001    | 2-HOLE CONTACT BLOCKS SUPPORT                   | ..   |
|     | 12001021    | SUNSPENSION RING                                | 1    |
| 06  | PL004001    | 1 NO CONTACT BLOCK                              | ..   |
|     | PL004002    | 1 NO CONTACT BLOCK                              | ..   |
| 07  | PL004010    | 2-SPEED 1NO+1NO CONTACT BLOCK                   | ..   |
|     | PL004007    | LAMP HOLDER                                     | ..   |
| 08  | 11607007    | SELF TAPPING SCREW 3.9X13                       | ..   |
|     | PL00700..   | ROTARY SWITCH                                   | ..   |
|     | PL00600..   | KEY SWITCH                                      | ..   |
|     | PL00800..   | PILOT LIGHT                                     | ..   |
| 09  | PL0050....  | ENGRAVED PUSH BUTTONS                           | ..   |
| 10  | PL013001    | MUSHROOM OPERATOR TURN TO RELEASE WITH VISION   | 1    |
| 11  | PL011002    | BOTTOM MECHANICAL INTERLOCK                     | ..   |
| 12  | PL011001    | TOP MECHANICAL INTERLOCK                        | ..   |
| 13  | 11705100    | M22 ZAMA LOCK NUTS                              | ..   |
| 14  | PL012001    | CABLE CLAMP LEVER                               | ..   |
| 15  | 12904008-09 | CABLE CLAMP                                     | 1+1  |
| 16  | 12906004    | PLB04 - 06 - 08 CABLE SLEEVE                    | ..   |
| 17  | 12906005    | PLB10 - 12 - 14 CABLE SLEEVE                    | ..   |



# Pendant stations

DC30 series pendant stations for power circuits  
IP65 □ direct switching

# Pendant stations

DC30 series pendant stations for power circuits  
IP65 □ direct switching



TECHNO-CONTROL EQUIPMENT

## GENERAL CHARACTERISTICS

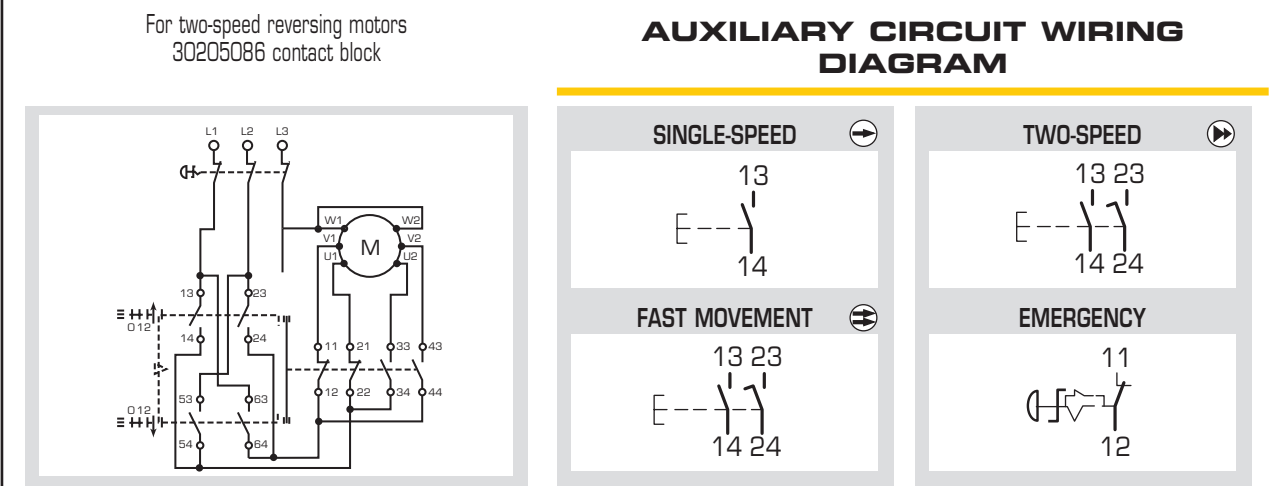
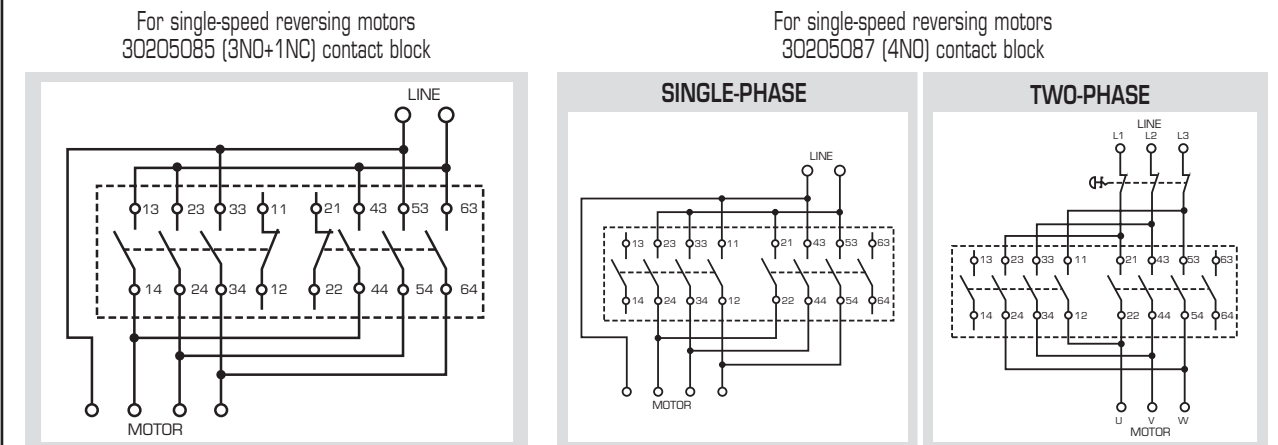
- Double insulated ABS enclosures
- IP65 protection rating according to IEC/EN 60529
- Ambient temperature: Operating -25° +70° °C  
Storage -40° +70° °C
- Slow break or snap action double gap contacts
- Cable entry with M25 cable clamp
- Rated insulation voltage  $U_i$  500V
- Rated thermal current 25A
- Rated operating power:
 

|                  |            |     |
|------------------|------------|-----|
| 3-phase - 2-pole | 230V ac kW | 2.2 |
|                  | 400V ac kW | 2.2 |
| 3-phase - 3-pole | 230V ac kW | 3   |
|                  | 400V ac kW | 3   |

| 2 directions mechanically interlocked | ENGRAVING  | DESCRIPTION   | REFERENCE NO. | WEIGHT gr | DIMENSIONS |
|---------------------------------------|--|---|---------------|-----------|------------|
|                                       |  | For single/three-phase 1-speed motor direct control<br>No. 1 Emergency stop ø 30 turn to release EN418 with 1NC+1NO contacts and: | DC30          | 600       |            |
|                                       |  | 3NO+1NC Contact block   |               |           |            |
|                                       | 4NO Contact block  | DC30.RG   | 600           |           |            |
|                                       | For single/three-phase 1-speed motor direct control<br>No. 1 Emergency stop ø 30 turn to release EN418 with 3 NC contacts and: | DC30.GE   | 600           |           |            |
|                                       | 3NO+1NC Contact block  |   |               |           |            |
|                                       |  |   |               |           |            |

| 2 directions mechanically interlocked | ENGRAVING | DESCRIPTION  | REFERENCE NO. | WEIGHT gr | DIMENSIONS |
|---------------------------------------|-----------|--|---------------|-----------|------------|
|                                       |           | For 2-speed motor direct control<br>No. 1 Emergency stop ø 30 turn to release EN418 with 3NC contacts and: | DC30D2        | 650       |            |
|                                       |           |  |               |           |            |
|                                       |           | 2NO+2NC Contact block  |               |           |            |
|                                       |           |  |               |           |            |

## WIRING DIAGRAMS - POWER CIRCUITS



# Pendant stations

DC30 series pendant stations for power circuits  
Accessories



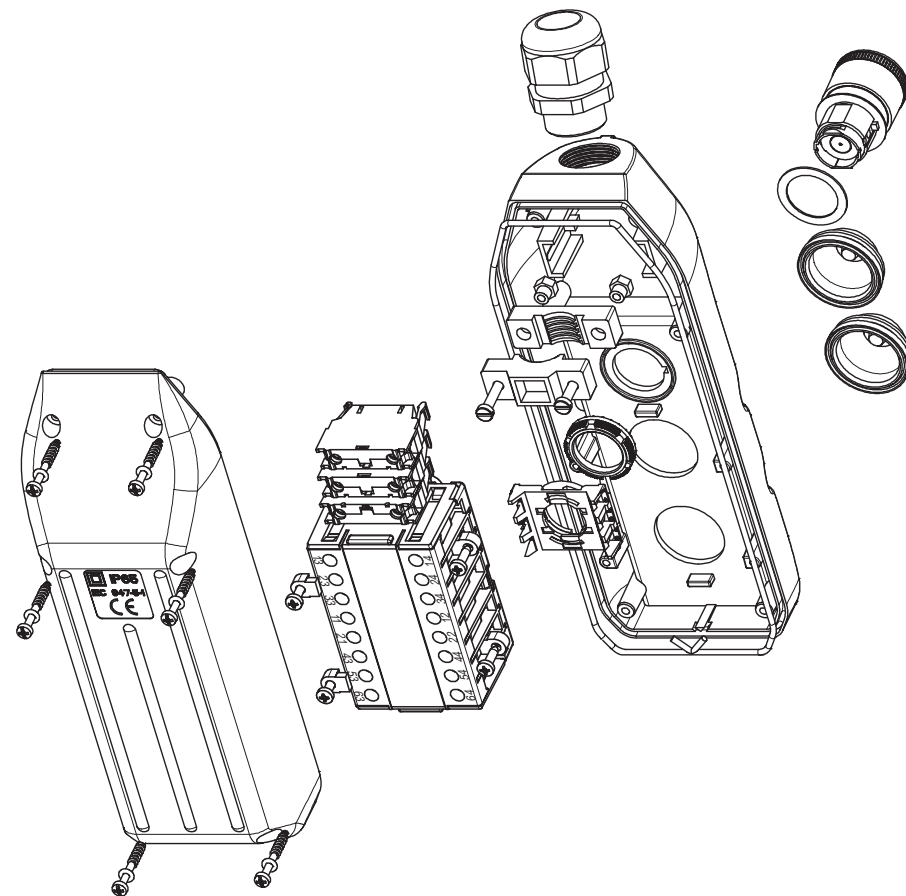
### CONTACT BLOCK FOR SINGLE-SPEED REVERSING MOTORS

|         |          |
|---------|----------|
| 3NO+1NC | 30205085 |
| 4NO     | 30205087 |

### CONTACT BLOCK FOR TWO-SPEED REVERSING MOTORS

|                              |          |
|------------------------------|----------|
| 4NO<br>(2NO+2NC PROGRESSIVE) | 30205086 |
|------------------------------|----------|

Exploded view



# Pendant stations

TLP series push button stations for tail lifts  
IP65 □ Spring loaded terminal contact blocks



TECHNO-CONTROL EQUIPMENT

## GENERAL CHARACTERISTICS

- Suitable for truck tail lifts
- Comply with UNI EN 1570 2001
- Heat resistant thermoplastic enclosure
- IP65 protection rating according to IEC/EN 60529
- Cable entry with No. 1 M20 cable clamp
- Suitable to be used both as pendant or fixed control station
- Laser printed push buttons

| 2 directions mechanically interlocked | ENGRAVING | DESCRIPTION  | REFERENCE NO. | WEIGHT gr | DIMENSIONS |
|---------------------------------------|-----------|--|---------------|-----------|------------|
|                                       | <br><br>  | No. 1 UP push button with 1 NO contact<br>No. 1 COMMON push button with 1 NO contact<br>No. 1 DOWN push button with 1 NO contact | TLP3.A        | 238       |            |
|                                       | <br><br>  | No. 1 Emergency stop ø 30 turn to release EN418<br>No. 2 push buttons with 1 NO contact  | TLP3.B        | 255       |            |

# Pendant stations

## TLP series push button stations for tail lifts

IP65 □ spring loaded terminal contact blocks

# Pendant stations

## P02 - PTRM - P03 - DC16 - PL - DC30 - TLP Series

Characteristics\*



TECHNO-CONTROL EQUIPMENT

| 2 directions mechanically interlocked | ENGRAVING    | DESCRIPTION   | REFERENCE NO. | WEIGHT gr | DIMENSIONS |
|---------------------------------------|--------------|---|---------------|-----------|------------|
|                                       | <br><br>     | No. 1 90° angle key switch O-1 with 1 NO contact<br><br>No. 2 push buttons with 1 NO contact  | TLP3.C        | 255       |            |
|                                       | <br><br><br> | No. 1 Emergency stop ø 30 turn to release EN418<br><br>No. 1 UP push button with 1 NO contact<br><br>No. 1 COMMON push button with 1 NO contact<br><br>No. 1 DOWN push button with 1 NO contact | TLP4.A        | 314       |            |
|                                       | <br><br><br> | No. 1 90° angle key switch O-1 with 1 NO contact<br><br>No. 1 Emergency stop ø 30 turn to release EN418<br><br>No. 2 push buttons with 1 NO contact   | TLP4.B        | 314       |            |
|                                       | <br><br><br> | No. 4 push buttons with 1 NO contact  | TLP4.C        | 297       |            |

### GENERAL CHARACTERISTICS

| STANDARD COMPLIANCE |                     |
|---------------------|---------------------|
| Material group      | II                  |
| Pollution class     | 3                   |
| Flame resistance    | UL94                |
| Ambient temperature | °C                  |
| Climate resistance  | IEC 68 part 2-8     |
| Cable entry         | rubber cable sleeve |

### ELECTRICAL CHARACTERISTICS

| CONTACT BLOCKS                              |   |
|---|---|
| Rated insulation voltage Ui                 | V   |
| Rated impulse voltage Uimp                  | kV  |
| Rated thermal current Ith                   | A   |
| Frequency                                   | Hz  |
| Rated operating current Ie:                 |   |
| AC15 alternate current                      | V   |
| DC13 direct current                         | A   |
| AC-3 alternate current                      | A   |
| 3-phase - 2-pole                            | 230V kW   |
| 3-phase - 3-pole                            | 230V kW   |
| Conditional short circuit withstand current | A   |
| Fuse rating gG                              | gG 10A-500V                                     |
| Contact insulation resistance               | mΩ  |
| Switching mechanism                         | Slow break double gap contacts                  |
| Positive operation                          | Positive opening NC contacts                    |
| Terminal type                               | M3.5 screw (spring loaded*)                     |
| Terminal capacity:                          | No. 1 Flexible and solid conductors min-max mm² |
|   | No. 2 Flexible and solid conductors min-max mm² |

|   | P02-PTRM-P03<br>DC16-PL-TLP                     | DC30  |
|---|---|---|
| STANDARD COMPLIANCE                         | IEC/EN60947-5-1                                 | IEC/EN60947-3                                   |
| Material group                              | II  | II  |
| Pollution class                             | 3   | 3   |
| Flame resistance                            | VO  | VO  |
| Ambient temperature                         | Operating: -25+70<br>Storage: -30 +70           | Operating: -25+70<br>Storage: -30 +70           |
| Climate resistance                          | IEC 68 part 2-8<br>IEC 69 part 2-30             | Hot damp<br>Unsettled hot damp                  |
| Cable entry                                 | rubber cable sleeve                             | rubber cable sleeve                             |
|   | cable clamp                                     | cable clamp                                     |
|   | PL Ø 9...24                                     | Ø 7...14  |
|   | P02-P03-PTRM Ø 7...18                           | -   |
|   | DC16 M25  | M25   |
|   | TLP M20   | -   |
|   | PL-P02-P03-PTRM-DC16-TLP                        | DC30  |
| Rated insulation voltage Ui                 | 690   | 500   |
| Rated impulse voltage Uimp                  | 4   | 4   |
| Rated thermal current Ith                   | 16  | 25  |
| Frequency                                   | 50  | 50  |
| Rated operating current Ie:                 |   |   |
| AC15 alternate current                      |   |   |
|   | 24   60   110   230   400   500   690           | -   |
| DC13 direct current                         | 16   12   5   5   4   4   4                     | -   |
| AC-3 alternate current                      |   |   |
|   | 24   60   110   230                             | -   |
|   | 2   0,85   0,4   0,25                           | -   |
| 3-phase - 2-pole                            | 230V kW   | 2.2   |
|   | 400V kW   | 2.2   |
| 3-phase - 3-pole                            | 230V kW   | 3   |
|   | 400V kW   | 3   |
| Conditional short circuit withstand current | 1000  | 1000  |
| Fuse rating gG                              | gG 10A-500V                                     | aM 12A-500V                                     |
| Contact insulation resistance               | ≤25   | -   |
| Switching mechanism                         | Slow break double gap contacts                  |   |
| Positive operation                          | Positive opening NC contacts                    |   |
| Terminal type                               | M3.5 screw (spring loaded*)                     | M3.5 screw                                      |
| Terminal capacity:                          | No. 1 Flexible and solid conductors min-max mm² | No. 1 Flexible and solid conductors min-max mm² |
|   | 1/2.5 (0.5/2.5*)                                | 1/2.5   |
|   | No. 2 Flexible and solid conductors min-max mm² | No. 2 Flexible and solid conductors min-max mm² |
|   | 1/2.5 (0.5/2.5*)                                | 1/2.5   |

\* TLP Series with spring loaded terminal contact blocks