



# SPA

## PENDANT CONTROL STATION

The SPA Pendant Station is a control device for all industrial machinery. It operates as an auxiliary controller of electrical motors through a power interface, such as a contactor or PLC. Designed for heavy duty, SPA is aimed specifically for the industrial market.

### FEATURES

It is available with 2 to 20 buttons arranged on a double row to allow for pairing of opposite functions and reducing overall dimensions. The emergency stop mushroom pushbutton complies with the EN 418 standard and it is equipped with positive opening NC switches.

### OPTIONS

One or two speed switches are available. The pendant station is available with different labels and colours.

### MATERIALS

The thermoplastic rectangular buttons comprise of a moulded two-colour arrangement offering a combination of clear reading of symbols and text with maximum wear resistance. Materials and components are wear resistant and protect the equipment against water and dust.



INDUSTRIAL  
LIFTING



CONSTRUCTION  
LIFTING



INDUSTRIAL  
AUTOMATION



STAGE  
TECHNOLOGY

## STANDARDS - MARKINGS - HOMOLOGATIONS

- Conformity to Community Directives:  
2006/95/CE: Low Voltage Directive  
2006/42/CE: Machinery Directive
- Conformity to Standards:  
EN 60204-1 Safety of machinery - Electrical equipment of machines  
EN 60947-1 Low-voltage switchgear and controlgear

EN 60947-5-1 Low-voltage switchgear and controlgear - Control circuit devices and switching elements - Electromechanical control circuit devices

EN 60529 Degrees of protection provided by enclosures

EN 418 Safety of machinery - Emergency stop equipment, functional aspects

- Markings and homologations:  $\text{CE}$

## GENERAL TECHNICAL SPECIFICATIONS

- Storage ambient temperature:  $-40^{\circ}\text{C}/+70^{\circ}\text{C}$
- Operational ambient temperature:  $-25^{\circ}\text{C}/+70^{\circ}\text{C}$
- Protection degree: IP 65
- Insulation category: Class II
- Cable entry: rubber cable sleeve ( $\text{Ø } 14+26 \text{ mm}$ )
- Operating positions: any position
- Markings and homologations:  $\text{CE}$

## TECHNICAL SPECIFICATIONS OF THE SWITCHES

- Utilisation category: AC 15
- Rated operational current: 1.9 A
- Rated operational voltage: 380 V
- Rated thermal current: 10 A
- Rated insulation voltage: 500 V~
- Mechanical life:  $1 \times 10^6$  operations
- Terminal referencing: according to EN 50013
- Connections: screw-type terminals
- Wires:  $1 \times 2.5 \text{ mm}^2$ ,  $2 \times 1.5 \text{ mm}^2$   
(UL - (c)UL: use  $60^{\circ}\text{C}$  or  $75^{\circ}\text{C}$  copper (CU) conductor and wire 16-18 AWG)
- Tightening torque: 0.6 Nm
- Markings and homologations:  $\text{CE}$   $\text{eU}$

The single switch PRSL0073XX has 1NO + 1NC contacts with 2 connecting terminals each.

The double switch PRSL0074XX has 1NO + 1NC contacts on each side with 2 connecting terminals for each contact and mechanical interlock.

The double switch PRSL0075XX (2 speeds) has 1NO + 1NC + 1NO contacts on each side with 2 connecting terminals for each contact and mechanical interlock.

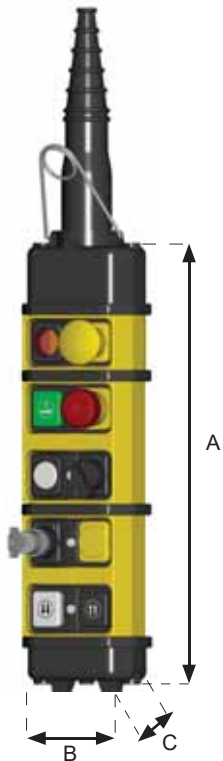
The double switch PRSL0076XX has 1NO + 1NC / 2NO + 2NC contacts with 2 connecting terminals each and mechanical interlock.

The double switch PRSL0077XX has 2NO + 2NC contacts on each side with 2 connecting terminals for each contact and mechanical interlock.

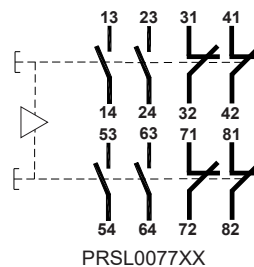
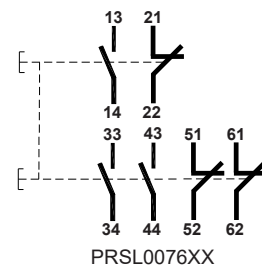
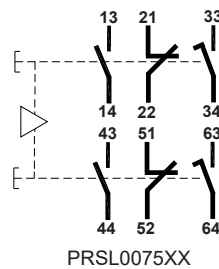
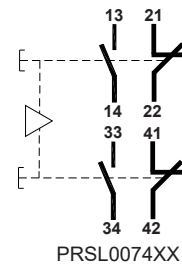
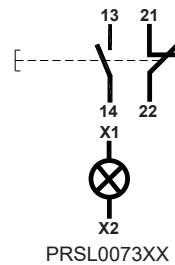
All NC contacts are of the positive opening operation type.

The switches have the following reference for internal wiring.

## OVERALL DIMENSIONS



| N° of buttons | Overall dimensions (mm) |    |    |
|---------------|-------------------------|----|----|
|               | A                       | B  | C  |
| 2             | 132                     | 94 | 64 |
| 4             | 184                     | 94 | 64 |
| 6             | 236                     | 94 | 64 |
| 8             | 288                     | 94 | 64 |
| 10            | 340                     | 94 | 64 |
| 12            | 392                     | 94 | 64 |
| 14            | 444                     | 94 | 64 |
| 16            | 496                     | 94 | 64 |
| 18            | 548                     | 94 | 64 |
| 20            | 600                     | 94 | 64 |



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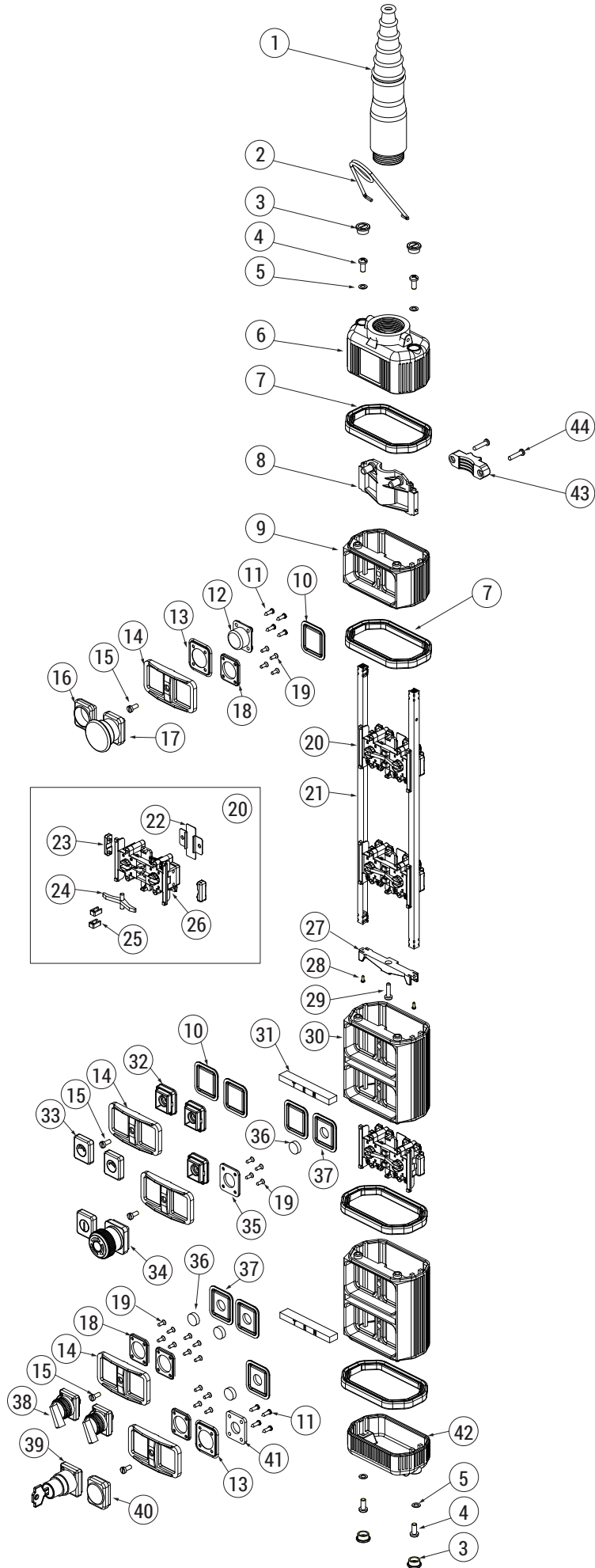
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# COMPONENTS

## SWITCHES

| REF | DRAWING | DESCRIPTION  | SCHEME | CODE       |
|-----|---------|--|--------|------------|
|     |         | 1 speed single switch 1 NO + 1 NC with bayonet lamp holder (lamp not included) |        | PRSL0073XX |
|     |         | 1NO + 1 NC one speed double switch with mechanical interlock                   |        | PRSL0074XX |
| 20  |         | 1NO + 1NC + 1NO two speeds double switch with mechanical interlock.            |        | PRSL0075XX |
|     |         | 1NO + 1NC / 2NO + 2NC one speed double switch                                  |        | PRSL0076XX |
|     |         | 2NO + 2NC one speed double switch with mechanical interlock                    |        | PRSL0077XX |

## ACTUATORS

| REF            | DRAWING | DESCRIPTION                                  | CODE                               |
|----------------|---------|--|------------------------------------|
| 10             |         | Rubber for button                            | PRGU6031PE                         |
| 32             |         | Button holder                                | PRSL9284PI                         |
| 33             |         | Buttons                                      | PRTAxxxxxx<br>See standard buttons |
| 38+18+19+36+37 |         | Maintained positions selector switch 0/1     | PRSL3540PI                         |
|                |         | Maintained positions selector switch 1/0/2   | PRSL3543PI                         |
| 39+13+19+36+37 |         | Maintained positions key selector switch 0/1 | PRSL3539PI                         |
| 40+13+41+11    |         | Blanking plug                                | PRSL5557PI                         |

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**PILOT LIGHTS**

| REF         | DRAWING | DESCRIPTION        | CODE       |
|-------------|---------|--------------------|------------|
| 16+13+12+11 |         | Red pilot light    | PRSL3534PI |
|             |         | Green pilot light  | PRSL3535PI |
|             |         | Yellow pilot light | PRSL3542PI |

**MUSHROOM PUSHBUTTONS**

| REF            | DRAWING | DESCRIPTION                        | CODE       |
|----------------|---------|------------------------------------|------------|
| 34+35+19+36+37 |         | Emergency stop mushroom pushbutton | PRSL3500PI |
| 17+18+19+10    |         | Impulse mushroom pushbutton        | PRSL3531PI |

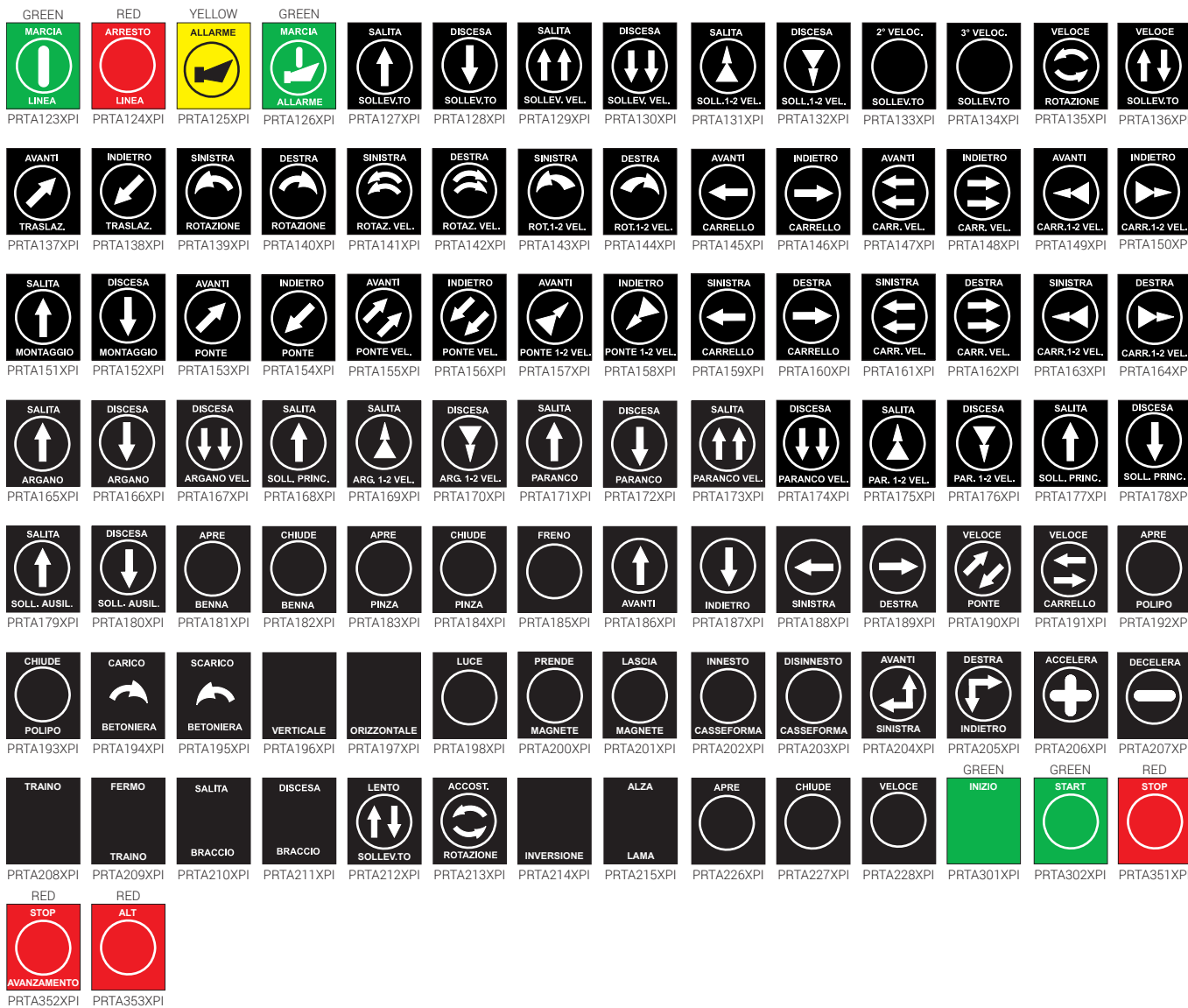
**ACCESSORIES**

| REF | DRAWING | DESCRIPTION         | CODE       |
|-----|---------|---------------------|------------|
| 1   |         | Cable sleeve        | PRSL0145PE |
| 2   |         | Hook                | PRGA0012PE |
| 14  |         | 2 holes frame       | PRSL5535PI |
|     |         | 1 hole frame        | PRSL5537PI |
|     |         | Frame without holes | PRSL5538PI |
| 15  |         | Screw for frame     | PRVV6027PE |

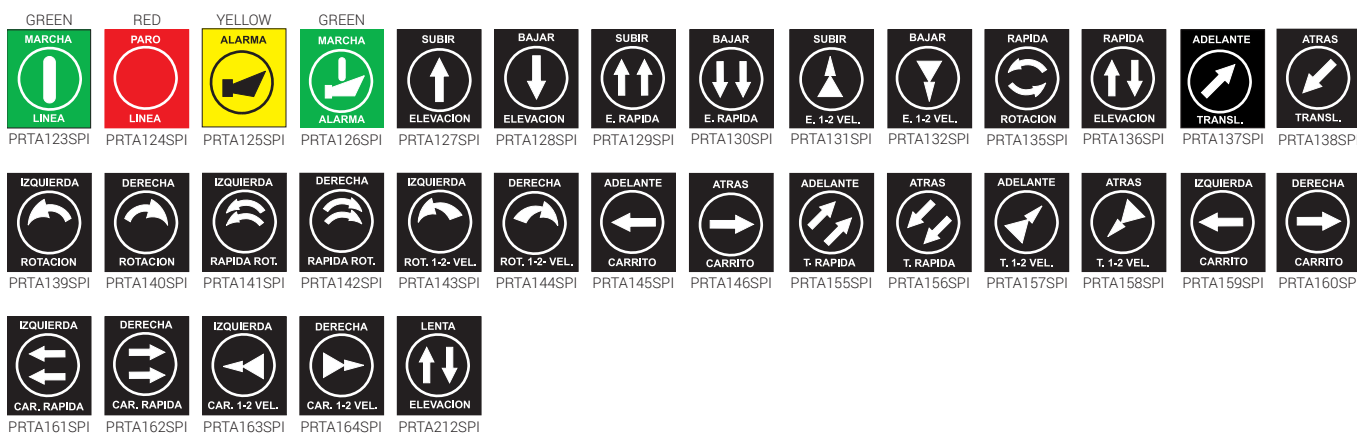
**STANDARD BUTTONS WITH SYMBOLS**

|                         |                         |                          |                         |                         |                |                |                |                |                |                |                |                |                |
|-------------------------|-------------------------|--------------------------|-------------------------|-------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| GREEN<br><br>PRTA101XPI | RED<br><br>PRTA102XPI   | YELLOW<br><br>PRTA103XPI | GREEN<br><br>PRTA104XPI | <br>PRTA105XPI          | <br>PRTA105XPB | <br>PRTA106XPI | <br>PRTA106XPB | <br>PRTA107XPI | <br>PRTA107XPB | <br>PRTA108XPI | <br>PRTA108XPB | <br>PRTA109XPI | <br>PRTA109XPB |
| <br>PRTA110XPI          | <br>PRTA110XPB          | <br>PRTA111XPI           | <br>PRTA112XPI          | <br>PRTA112XPB          | <br>PRTA113XPI | <br>PRTA114XPI | <br>PRTA114XPB | <br>PRTA115XPI | <br>PRTA116XPI | <br>PRTA116XPB | <br>PRTA117XPI | <br>PRTA117XPB | <br>PRTA118XPI |
| <br>PRTA119XPI          | <br>PRTA119XPB          | <br>PRTA120XPI           | <br>PRTA121XPI          | <br>PRTA121XPB          | <br>PRTA216XPI | <br>PRTA217XPI | <br>PRTA218XPI | <br>PRTA219XPI | <br>PRTA374XPI | <br>PRTA375XPI | <br>PRTA375XPB | <br>PRTA376XPI | <br>PRTA377XPI |
| RED<br><br>PRTA122XPI   | BLACK<br><br>PRTA199XPI | YELLOW<br><br>PRTA220XPI | GREEN<br><br>PRTA221XPI | WHITE<br><br>PRTA229XPI |                |                |                |                |                |                |                |                |                |

STANDARD BUTTONS WITH LETTERINGS IN ITALIAN



STANDARD BUTTONS WITH LETTERINGS IN SPANISH



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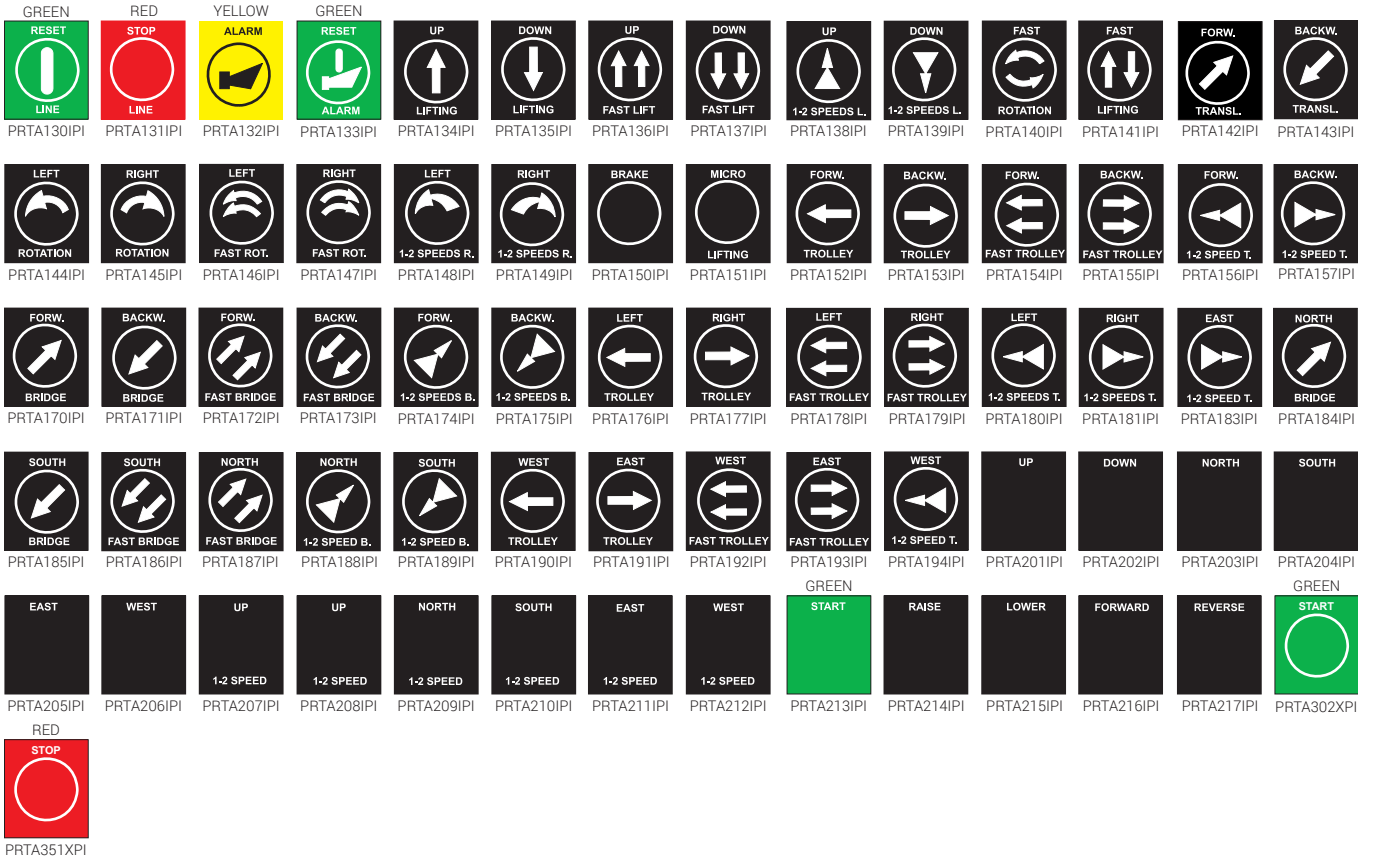
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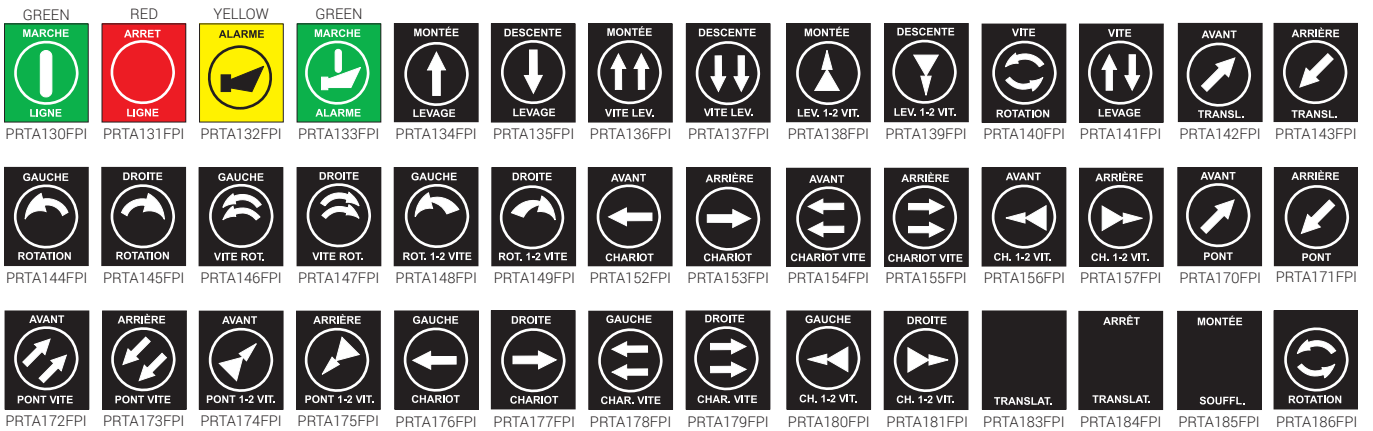
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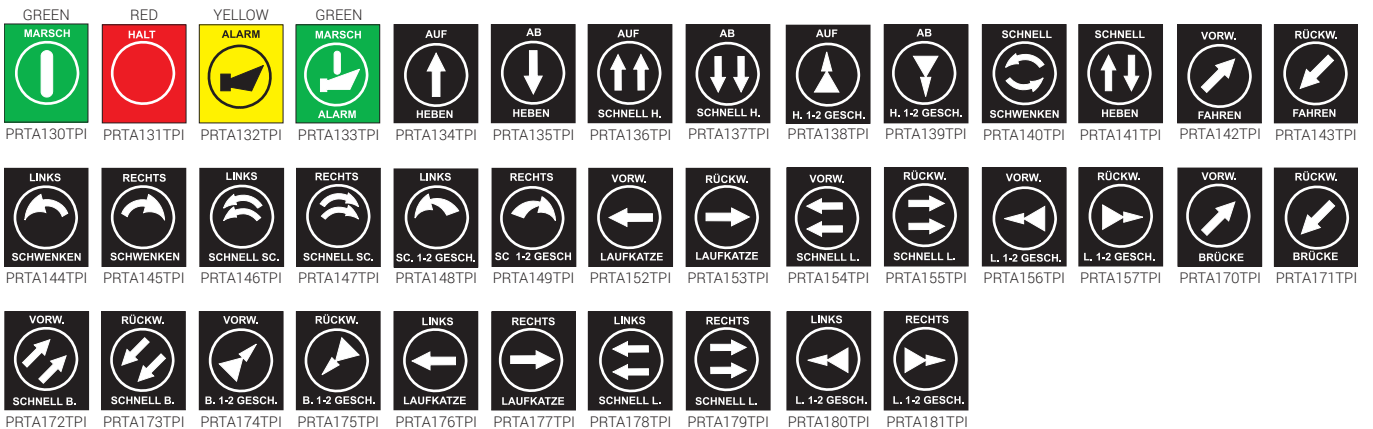
STANDARD BUTTONS WITH LETTERINGS IN ENGLISH



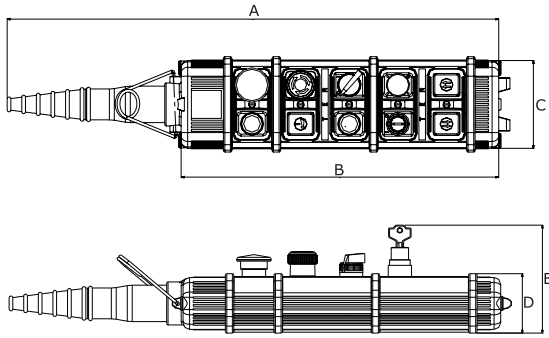
STANDARD BUTTONS WITH LETTERINGS IN FRENCH



STANDARD BUTTONS WITH LETTERINGS IN GERMAN



## OVERALL DIMENSIONS (MM)



| No. of buttons | Weight (kg) | Overall dimensions (mm) |     |    |    |     |
|----------------|-------------|-------------------------|-----|----|----|-----|
|                |             | A                       | B   | C  | D  | E   |
| 2              | 0,520       | 318                     | 132 | 94 | 64 | 116 |
| 4              | 0,700       | 370                     | 184 | 94 | 64 | 116 |
| 6              | 0,880       | 422                     | 236 | 94 | 64 | 116 |
| 8              | 1,040       | 474                     | 288 | 94 | 64 | 116 |
| 10             | 1,300       | 526                     | 340 | 94 | 64 | 116 |
| 12             | 1,380       | 578                     | 392 | 94 | 64 | 116 |
| 14             | 1,550       | 630                     | 444 | 94 | 64 | 116 |
| 16             | 1,710       | 682                     | 496 | 94 | 64 | 116 |
| 18             | 1,890       | 734                     | 548 | 94 | 64 | 116 |
| 20             | 2,050       | 786                     | 600 | 94 | 64 | 116 |

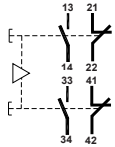
## STANDARD PENDANT STATIONS

### 2 ACTUATORS

PF02020007

Switch type

Actuator type



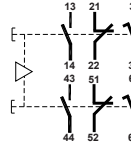
PRSL0074XX  
1NO + 1NC / 1NO + 1NC  
1 speed

Button Button

PF02020039

Switch type

Actuator type



PRSL0075XX  
1NO + 1NC / 1NO + 1NC  
1 speeds

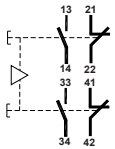
Button Button

### 4 ACTUATORS

PF02040185

Switch type

Actuator type



PRSL0074XX  
1NO + 1NC / 1NO + 1NC  
1 speed

Blanking plug Mushroom pushbutton

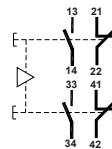
PRSL0074XX  
1NO + 1NC / 1NO + 1NC  
1 speed

Button Button

PF02040241

Switch type

Actuator type



PRSL0074XX  
1NO + 1NC / 1NO + 1NC  
1 speed

Button GREEN Mushroom pushbutton

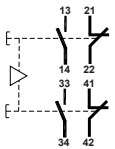
PRSL0074XX  
1NO + 1NC / 1NO + 1NC  
1 speed

Button Button

PF02040186

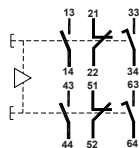
Switch type

Actuator type



PRSL0074XX  
1NO + 1NC / 1NO + 1NC  
1 speed

Blanking plug Mushroom pushbutton



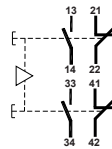
PRSL0075XX  
1NO + 1NC / 1NO + 1NC  
1 speeds

Button Button

PF02040240

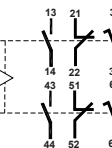
Switch type

Actuator type



PRSL0074XX  
1NO + 1NC / 1NO + 1NC  
1 speed

Button GREEN Mushroom pushbutton



PRSL0075XX  
1NO + 1NC / 1NO + 1NC  
1 speeds

Button Button

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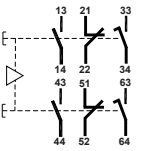


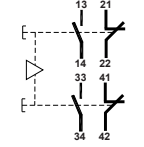


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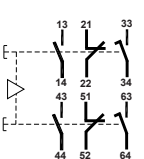


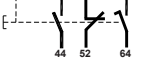


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**PF02040242**

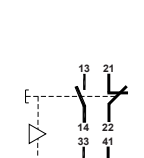
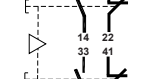





| Switch type  | Actuator type   |
|--|---|
|  <p>PRSL0075XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speeds</p> | <p>Button</p>  <p>Button</p>  |
|  <p>PRSL0074XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speed</p>  | <p>Button</p>  <p>Button</p>  |

**PF02040243**

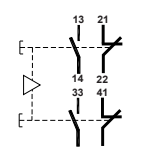


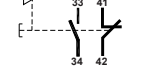


| Switch type  | Actuator type   |
|--|---|
|  <p>PRSL0075XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speeds</p> | <p>Button</p>  <p>Button</p>  |
|  <p>PRSL0075XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speeds</p> | <p>Button</p>  <p>Button</p>  |

**6 ACTUATORS**

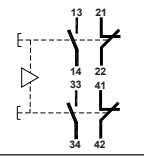
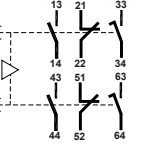


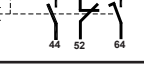


**PF02060455**

| Switch type   | Actuator type   |
|---|---|
|  <p>PRSL0074XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speed</p> | <p>Blanking plug</p> <p>Mushroom pushbutton</p>   |
|  <p>PRSL0074XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speed</p> | <p>Button</p>  <p>Button</p>  |
|  <p>PRSL0074XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speed</p> | <p>Button</p>  <p>Button</p>  |

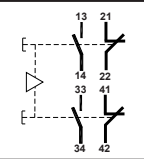
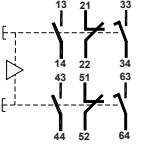


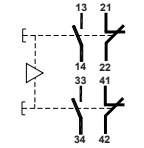


**PF02040063**

| Switch type  | Actuator type   |
|--|---|
|  <p>PRSL0074XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speed</p> | <p>Button</p>  <p>Button</p>  |
|  <p>PRSL0074XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speed</p> | <p>Button</p>  <p>Button</p>  |

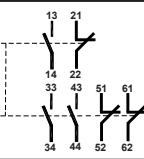

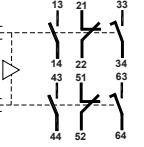


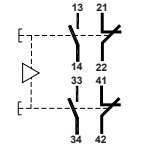


**PF02060401**

| Switch type   | Actuator type   |
|---|---|
|  <p>PRSL0074XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speed</p>  | <p>Blanking plug</p> <p>Mushroom pushbutton</p>   |
|  <p>PRSL0075XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speeds</p> | <p>Button</p>  <p>Button</p>  |
|  <p>PRSL0075XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speeds</p> | <p>Button</p>  <p>Button</p>  |

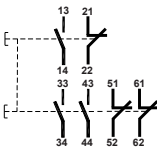

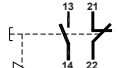


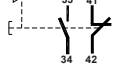


**PF02060456**

| Switch type  | Actuator type   |
|--|---|
|  <p>PRSL0074XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speed</p>  | <p>Blanking plug</p> <p>Mushroom pushbutton</p>   |
|  <p>PRSL0075XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speeds</p> | <p>Button</p>  <p>Button</p>  |
|  <p>PRSL0074XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speed</p>  | <p>Button</p>  <p>Button</p>  |

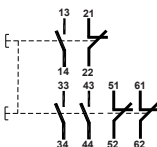

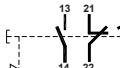


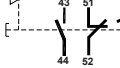


**PF02060439**

| Switch type   | Actuator type   |
|---|---|
|  <p>PRSL0076XX<br/>1NO + 1NC / 2NO + 2NC<br/>1 speed</p>  | <p>Button GREEN</p>  <p>Mushroom pushbutton</p>  |
|  <p>PRSL0075XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speeds</p> | <p>Button</p>  <p>Button</p>  |
|  <p>PRSL0074XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speed</p>  | <p>Button</p>  <p>Button</p>  |

PF02060355

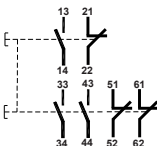

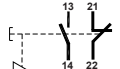


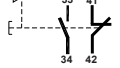





| Switch type   | Actuator type  |
|---|--|
|  <p>PRSL0076XX<br/>1NO + 1NC / 2NO + 2NC<br/>1 speed</p>  | <p>Button GREEN<br/>Mushroom pushbutton</p>   |
|  <p>PRSL0074XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speed</p> | <p>Button Button</p>   |
|  <p>PRSL0074XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speed</p> | <p>Button Button</p>   |

PF02060356

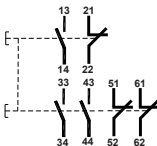

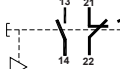


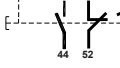





| Switch type  | Actuator type  |
|--|--|
|  <p>PRSL0076XX<br/>1NO + 1NC / 2NO + 2NC<br/>1 speed</p>  | <p>Button GREEN<br/>Mushroom pushbutton</p>   |
|  <p>PRSL0075XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speeds</p> | <p>Button Button</p>   |
|  <p>PRSL0075XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speeds</p> | <p>Button Button</p>   |

8 ACTUATORS

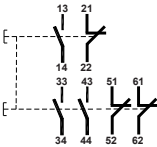

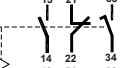


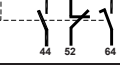


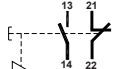


PF02080237

| Switch type   | Actuator type  |
|---|--|
|  <p>PRSL0076XX<br/>1NO + 1NC / 2NO + 2NC<br/>1 speed</p>    | <p>Button GREEN<br/>Mushroom pushbutton</p>   |
|  <p>PRSL0074XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speed</p>   | <p>Button Button</p>       |
|  <p>PRSL0074XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speed</p>  | <p>Button Button</p>     |
|  <p>PRSL0074XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speed</p> | <p>Button Button</p>   |

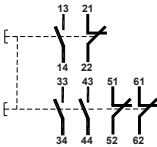

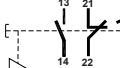


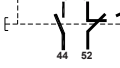


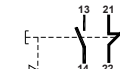


PF02080440

| Switch type  | Actuator type  |
|--|--|
|  <p>PRSL0076XX<br/>1NO + 1NC / 2NO + 2NC<br/>1 speed</p>    | <p>Button GREEN<br/>Mushroom pushbutton</p>   |
|  <p>PRSL0075XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speeds</p>   | <p>Button Button</p>       |
|  <p>PRSL0075XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speeds</p>  | <p>Button Button</p>     |
|  <p>PRSL0075XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speeds</p> | <p>Button Button</p>   |

PF02080702

| Switch type  | Actuator type  |
|--|--|
|  <p>PRSL0076XX<br/>1NO + 1NC / 2NO + 2NC<br/>1 speed</p>   | <p>Button GREEN<br/>Mushroom pushbutton</p>   |
|  <p>PRSL0075XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speeds</p> | <p>Button Button</p>   |
|  <p>PRSL0074XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speed</p>  | <p>Button Button</p>   |
|  <p>PRSL0074XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speed</p>  | <p>Button Button</p>   |

PF02080703

| Switch type  | Actuator type  |
|--|--|
|  <p>PRSL0076XX<br/>1NO + 1NC / 2NO + 2NC<br/>1 speed</p>  | <p>Button GREEN<br/>Mushroom pushbutton</p>   |
|  <p>PRSL0075XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speeds</p> | <p>Button Button</p>   |
|  <p>PRSL0075XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speeds</p> | <p>Button Button</p>   |
|  <p>PRSL0074XX<br/>1NO + 1NC / 1NO + 1NC<br/>1 speed</p>  | <p>Button Button</p>   |

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**TER Tecno Elettrica Ravasi srl**

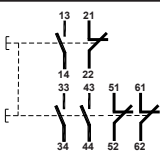
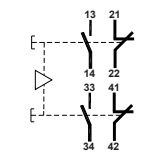
Via Garibaldi 29/31 - 23885 Calco (LC) - Italy

Registered Office - via San Vigilio 2 - 23887 Olgiate Molgora (LC) - Italy

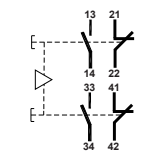
Tel. +39 0399911011 - Fax +39 0399910445 - E-mail: info@terworld.com

[www.terworld.com](http://www.terworld.com)

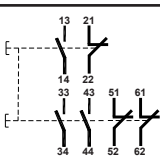
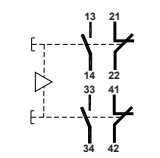
PF02100324

| Switch type   | Actuator type                                  |                                     |
|---|--|-------------------------------------|
|  | PRSL0076XX<br>1NO + 1NC / 2NO + 2NC<br>1 speed | Button GREEN<br>Mushroom pushbutton |
|   | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |
|  | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |
|   | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |
|   | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |

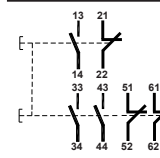
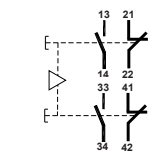
PF02101187

| Switch type  | Actuator type                                  |                                     |
|--|--|-------------------------------------|
|  | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button YELLOW<br>Button             |
|  | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button GREEN<br>Mushroom pushbutton |
|  | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |
|  | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |
|  | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |

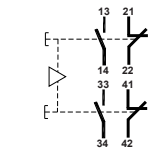
PF02120306

| Switch type   | Actuator type                                  |                                     |
|---|--|-------------------------------------|
|  | PRSL0076XX<br>1NO + 1NC / 2NO + 2NC<br>1 speed | Button GREEN<br>Mushroom pushbutton |
|   | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |
|  | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |
|   | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |
|   | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |
|   | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |

PF02100308

| Switch type  | Actuator type                                  |                                     |
|--|--|-------------------------------------|
|  | PRSL0076XX<br>1NO + 1NC / 2NO + 2NC<br>1 speed | Button GREEN<br>Mushroom pushbutton |
|  | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |
|  | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |
|  | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |
|  | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |

PF02101187

| Switch type  | Actuator type                                  |                                     |
|--|--|-------------------------------------|
|  | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button YELLOW<br>Button             |
|  | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button GREEN<br>Mushroom pushbutton |
|  | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |
|  | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |
|  | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |
|  | PRSL0074XX<br>1NO + 1NC / 1NO + 1NC<br>1 speed | Button<br>Button                    |

**Control elements**

- 1 PRSL3500PI Emergency stop mushroom pushbutton
- 2 PRSL3531PI Impulse mushroom pushbutton
- 3 PRSL3539PI 2 position key selector switch
- 4 PRSL3540PI 2 position selector switch
- 5 PRSL3543PI 3 position selector switch
- 6 PRSL3534PI Red pilot light
- 7 PRSL3535PI Green pilot light
- 8 PRSL3542PI Yellow pilot light
- 9 PRSL5557PI Blanking plug

**Switches**

- 1 PRSL0073XX 1NO+1NC / lamp holder
- 2 PRSL0074XX 1NO+1NC / 1NO+1NC
- 3 PRSL0075XX 2NO+1NC / 2NO+1NC
- 4 PRSL0076XX 1NO+1NC / 2NO+2NC
- 5 PRSL0077XX 2NO+2NC / 2NO+2NC

**Instructions**

- Fill in the **pendant station** scheme for the number of control elements required (2, 4, 6, 8, 10, 12, 14, 16, 18 or 20 buttons).
- Write the number corresponding to the **control element** required (broken line box). When buttons are required, fill in the PRTA \_\_\_\_\_ code and mark the direction of the arrow into the corresponding box.
- Write the number corresponding to the **switches** required. When PRSL0076XX is required, mark the position of the 2NO+2NC contacts (left or right).
- Mark the box corresponding to the **mechanical interlock** when required.
- Mark the appropriate box to show where the **cable sleeve** and the **hook** must be assembled (top or bottom).

**Remarks**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

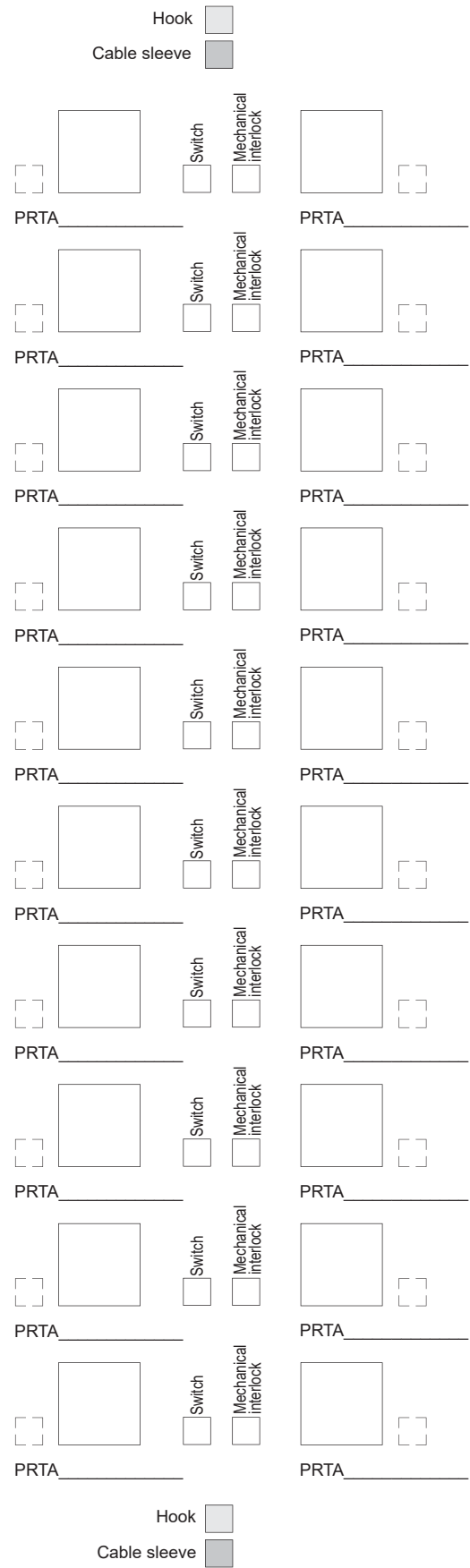
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## USE AND MAINTENANCE INSTRUCTIONS

The SPA Pendant Control Station is an electromechanical device for low voltage control circuits (EN 60947-1, EN 60947-5-1) to be used as electrical equipment on machines (EN 60204-1) in compliance with the fundamental requirements of the Low Voltage Directive 2006/95/CE and of the Machine Directive 2006/42/CE.

The pendant station is designed for industrial use and also for use under particularly severe climatic conditions (operational temperature from  $-25^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$ , suitable for use in tropical environment). The equipment is not suitable for use in environments with potentially explosive atmosphere, corrosive agents or a high percentage of sodium chloride (saline fog). Oils, acids or solvents may damage the equipment; avoid using them for cleaning.

The switches (20) are designed for auxiliary control of contactors or electromagnetic loads (utilisation category AC-15 according to EN 60947-5-1). Do not connect more than one phase to each switch (20). Do not oil or grease the control elements (17, 33, 34, 38, 39) or the switches (20).

The installation of the pendant station shall be carried out by an expert and trained personnel. Wiring shall be properly done according to the current instructions.

Prior to the installation and the maintenance of the pendant station, the main power of the machinery shall be turned off.

### Steps for the proper installation of the pendant station

- remove the plastic plugs (3) from the lower cover (42)
- remove the screws (4) from the lower cover (42)
- remove the lower cover (42), the rubber frames (7) and the sections (9, 30) from the inner part of the pendant station; make sure to follow the same sequence when reassembling the sections (9, 30)
- remove the plastic plugs (3) from the upper cover (6)
- remove the screws (4) from the upper cover (6) and the latter from the inner part of the pendant station
- screw the variable section rubber cable sleeve (1) on the upper cover (6)
- cut the variable section rubber cable sleeve (1) and insert the cable tight enough to guarantee protection against water and/or dust
- strip the cable to a length suitable for wiring the switches (20)
- tape the stripped part of the cable
- fix the cable inside the pendant station using the cable clamp (43, 44)
- connect all the switches (20) (tighten the terminal screws with a torque of 0.8 Nm; insertability of wires into the terminals  $1 \times 2,5 \text{ mm}^2 - 2 \times 1,5 \text{ mm}^2$ ); for the correct positioning of the wires into the pendant station, remove the wire covers (22) from the switches (20), place the wires into the seats and fix the wire covers again (22)
- mount the upper cover (6) on the inner part of the pendant station and fasten the screws (4); when placing the upper cover (6), make sure that the writing "TER" and the label identifying the product are on the same side of the actuators (17, 33, 34, 38, 39)
- screw the plastic plugs (3) on the upper cover (6)
- fix the cable to the cable sleeve (1) using a cable tie (not supplied)
- assemble the rubber frames (7) and the sections (9, 30) alternatively, making sure to follow the right sequence
- mount the lower cover (42) on the inner part of the pendant station and tighten the screws (4)
- screw the plastic plugs (3) on the lower cover (42)
- assemble the hook (2)

### Additional steps for replacing the switches

- open the pendant station as explained in the installation steps
- remove possible wires from the switch (20) needing replacement
- loosen the screw (29) on the bottom of the inner part of the pendant station
- remove the two plastic guides (23) from the switch (20) and remove the latter from the pendant station
- remove the two plastic guides (23) from the new switch (20)
- place the switch (20) on the inner part of the pendant station
- place back the two plastic guides (23) checking that they are on the right side (the slightly raised part of the guides must be in touch with the metal rods (21) of the pendant station)
- tighten the screw (29) on the bottom of the inner part of the pendant station in order to fix the switches (20)
- wire back the switch and close the pendant station as explained in the installation steps

### Additional steps for mounting/replacing control/signalling bulbs into the lamp holders

- remove the central screw (15) from the frame (14) assembled on the pilot light (12, 16)
- remove the frame (14)
- put the bayonet-type bulb into its seat (use BA9s 125V-2,6 W(max) bulbs)
- place the frame back (14) and tighten the screw (15)

### Operazioni di manutenzione periodica

- check the proper tightening of the screws (4, 15)
- check the proper tightening of the switch (20) terminal screws
- check all wiring (in particular where wires clamp into the switches)
- check the conditions of the rubber frames (7), of the rubber of the actuators (10, 13, 37) and of the cable sleeve (1)
- check that the plastic enclosure (6, 9, 30, 42) of the pendant station is not broken

In case any component of the pendant station is modified, the validity of the markings and the guarantee on the equipment are annulled. Should any component need replacement, use original spare parts only.

TER declines all responsibility for damages caused by the improper use or installation of the equipment.

\* Fare riferimento al disegno esploso del catalogo

