

# 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.

— 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 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. The pendant station can be customised with labels and colours according to the customer's requirements.

— One or two speed switches are available. The emergency stop mushroom pushbutton complies with the EN 418 standard and it is equipped with positive opening nc switches.

## TECHNICAL SPECIFICATIONS

Conformity to Community Directives	2006/95/CE	
Conformity to Standards	EN 60204-1 EN 60947-1 EN60947-5-1 EN 60529 EN 418	
Ambient temperature	Storage	-40°C/+70°C
	Operational	-25°C/+70°C
Protection degree	IP 65	
Insulation category	Class II	
Cable entry	Rubber cable sleeve Ø 14÷26 mm	
Operating positions	Any position	
Markings	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	1×10 <sup>6</sup> operations
Terminal referencing	According to EN 50013
Connections	Screw-type terminals
Markings	CE

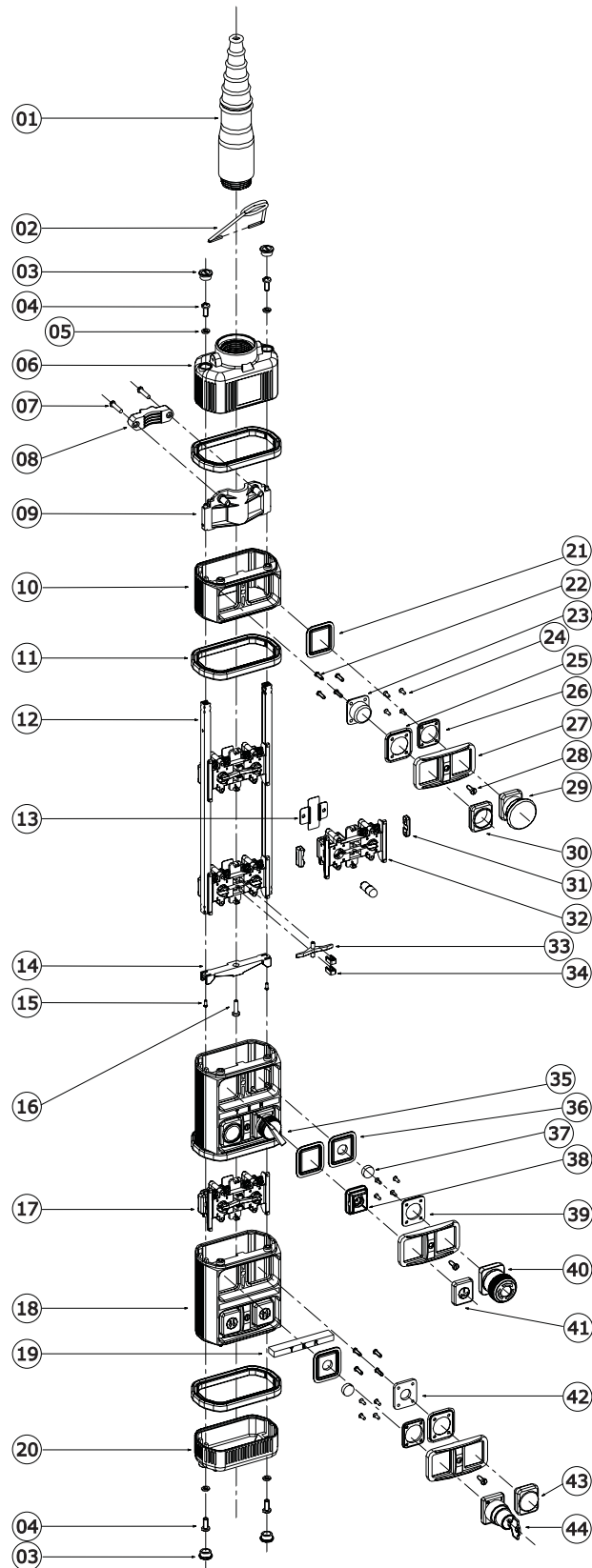
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DETAILED DRAWING

SPA PENDANT CONTROL STATION



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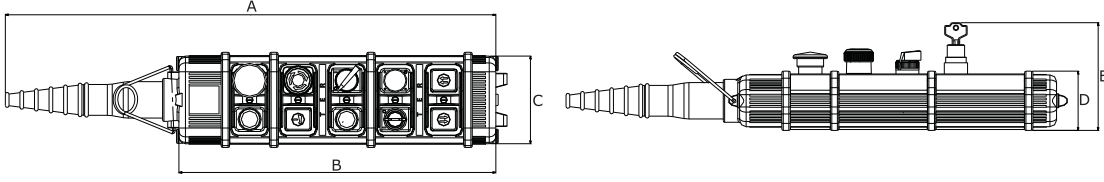
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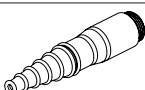

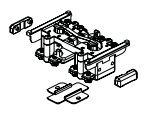


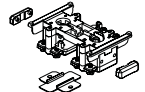





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## OVERALL DIMENSIONS



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

## SPARE PARTS

REFERENCE	DRAWING	CODE	DESCRIPTION
<b>01</b>		PRSL0145PE PRSL0146PE	Cable sleeve Silicone cable sleeve
<b>02</b>		PRGA0012PE	Hook
<b>17</b> +13+31		PRSL0074XX PRSL0075XX PRSL0076XX PRSL0077XX	1no+1nc / 1no+1nc switch 2no+1nc / 2no+1nc switch 1no+1nc / 2no+2nc switch 2no+2nc / 2no+2nc switch
<b>23</b> +22+25+30		PRSL3534PI PRSL3535PI PRSL3542PI	Red pilot light Green pilot light Yellow pilot light
<b>29</b> +24+26		PRSL3531PI	Impulse mushroom pushbutton
<b>32</b> +13+31		PRSL0073XX	1no+1nc switch / lamp holder
<b>35</b> +24+26+36+37		PRSL3540PI PRSL3543PI	2 position selector switch 3 position selector switch
<b>40</b> +24+36+37+39		PRSL3500PI	Emergency stop mushroom pushbutton
<b>41</b>		PRTAxxxxxx See standard buttons	Button
<b>43</b> +22+25+42		PRSL5557PI	Blanking plug
<b>44</b> +24+26+36+37		PRSL3539PI	2 position key selector switch

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## STANDARD BUTTONS

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PRTA101XPI GREEN	PRTA102XPI RED	PRTA103XPI YELLOW	PRTA104XPI GREEN	PRTA105XPI	PRTA105XPB	PRTA106XPI	PRTA106XPB	PRTA107XPI	PRTA107XPB	PRTA108XPI	PRTA108XPB
PRTA109XPI	PRTA109XPB	PRTA110XPI	PRTA110XPB	PRTA111XPI	PRTA112XPI	PRTA112XPB	PRTA113XPI	PRTA114XPI	PRTA114XPB	PRTA115XPI	PRTA116XPI
PRTA116XPB	PRTA117XPI	PRTA117XPB	PRTA118XPI	PRTA119XPI	PRTA119XPB	PRTA120XPI	PRTA121XPI	PRTA121XPB	PRTA122XPI RED	PRTA130IPI GREEN	PRTA131IPI RED
PRTA132IPI YELLOW	PRTA133IPI GREEN	PRTA134IPI	PRTA135IPI	PRTA136IPI	PRTA137IPI	PRTA138IPI	PRTA139IPI	PRTA140IPI	PRTA141IPI	PRTA142IPI	PRTA143IPI
PRTA144IPI	PRTA145IPI	PRTA146IPI	PRTA147IPI	PRTA148IPI	PRTA149IPI	PRTA150IPI	PRTA151IPI	PRTA152IPI	PRTA153IPI	PRTA154IPI	PRTA155IPI
PRTA156IPI	PRTA157IPI	PRTA170IPI	PRTA171IPI	PRTA172IPI	PRTA173IPI	PRTA174IPI	PRTA175IPI	PRTA176IPI	PRTA177IPI	PRTA178IPI	PRTA179IPI
PRTA180IPI	PRTA181IPI	PRTA183IPI	PRTA184IPI	PRTA185IPI	PRTA186IPI	PRTA187IPI	PRTA188IPI	PRTA189IPI	PRTA190IPI	PRTA191IPI	PRTA192IPI
PRTA193IPI	PRTA194IPI	PRTA199XPI BLACK	PRTA201IPI	PRTA202IPI	PRTA203IPI	PRTA204IPI	PRTA205IPI	PRTA206IPI	PRTA207IPI	PRTA208IPI	PRTA209IPI
PRTA210IPI	PRTA211IPI	PRTA212IPI	PRTA213IPI GREEN	PRTA214IPI	PRTA215IPI	PRTA216IPI	PRTA217IPI	PRTA220XPI YELLOW	PRTA221XPI GREEN	PRTA223XPI	PRTA223XPB
PRTA229XPI WHITE	PRTA361XPI	PRTA361XPB	PRTA362XPI	PRTA362XPB	PRTA363XPI	PRTA363XPB	PRTA364XPI	PRTA364XPB	PRTA365XPI	PRTA365XPB	PRTA372XPI
PRTA372XPB	PRTA375XPI	PRTA375XPB	<p>Standard buttons in Italian, French, Spanish and German are available. Buttons with non-standard letterings and symbols are available on request.</p>								



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# SPA PENDANT CONTROL STATION

## 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 98/37/CE.

The pendant station is designed for industrial use and also for use under particularly severe climatic conditions (operational temperature from -25°C to +70°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.

The switches (17, 32) 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 (17, 32). Do not oil or grease the control elements (29, 35, 40, 41, 44) or the switches (17, 32).

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 (03) from the lower cover (20)
- remove the screws (04) from the lower cover (20)
- remove the lower cover (20), the rubber frames (11) and the sections (10, 18) from the inner part of the pendant station; make sure to follow the same sequence when reassembling the sections (10, 18)
- remove the plastic plugs (03) from the upper cover (06)
- remove the screws (04) from the upper cover (06) and the latter from the inner part of the pendant station
- screw the variable section rubber cable sleeve (01) on the upper cover (06)
- cut the variable section rubber cable sleeve (01) 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 (17, 32)
- tape the stripped part of the cable
- fix the cable inside the pendant station using the cable clamp (07, 08)
- connect all the switches (17, 32) (tighten the wires into the terminals with a torque equal to 0.8 Nm; insertability of wires into the switch terminals equal to  $2 \times 1.5 \text{ mm}^2 - 1 \times 2.5 \text{ mm}^2$ ); for the correct positioning of the wires into the pendant station, remove the wire covers (13) from the switches (17, 32), place the wires into the seats and fix the wire covers again (13)
- mount the upper cover (06) on the inner part of the pendant station and fasten the screws (04); when placing the upper cover (06), make sure that the writing "TER" and the label identifying the product are on the same side of the actuators (29, 35, 40, 41, 44)
- screw the plastic plugs (03) on the upper cover (06)
- fix the cable to the cable sleeve (01) using a cable tie (not supplied)
- assemble the rubber frames (11) and the sections (10, 18) alternatively, making sure to follow the right sequence
- mount the lower cover (20) on the inner part of the pendant station and tighten the screws (04)
- screw the plastic plugs (03) on the lower cover (20)
- assemble the hook (02)

### Additional steps for replacing the switches

- open the pendant station as explained in the installation steps
- remove possible wires from the switch (17, 32) needing replacement
- loosen the screw (16) on the bottom of the inner part of the pendant station
- remove the two plastic guides (31) from the switch (17, 32) and remove the latter from the pendant station
- remove the two plastic guides (31) from the new switch (17, 32)
- place the switch (17, 32) on the inner part of the pendant station
- place back the two plastic guides (31) checking that they are on the right side (the slightly raised part of the guides must be in touch with the metal rods (12) of the pendant station)
- tighten the screw (16) on the bottom of the inner part of the pendant station in order to fix the switches (17, 32)
- 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 (28) from the frame (27) assembled on the pilot light (23, 30)
- remove the frame (27)
- put the bayonet-type bulb into its seat (use BA9s 125V-2,6 W(max) bulbs)
- place the frame back (27) and tighten the screw (28)

### Periodic maintenance steps

- check the proper tightening of the screws (04, 28)
- check the proper tightening of the switch (17, 32) terminal screws
- check all wiring (in particular where wires clamp into the switches)
- check the conditions of the rubber frames (11), of the rubber of the actuators (21, 25, 36) and of the cable sleeve (01)
- check that the plastic enclosure (06, 10, 18, 20) 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.