

ALPHA PENDANT CONTROL STATION

Brochure & Installation Guide

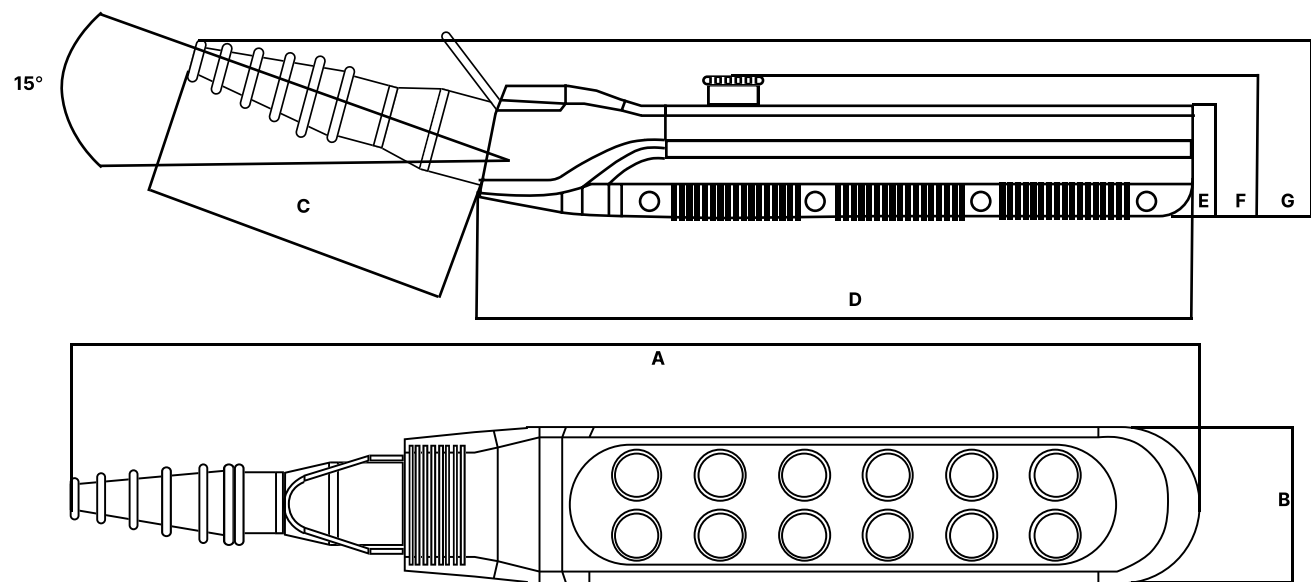


Alpha Pendant Control Station

General Information

The Alpha Pendant Control Station is a heavy duty auxiliary control device intended for use on industrial overhead cranes or other mobile electrical equipment. It is available with 2 to 13 buttons arranged in 2 columns to allow for pairing of opposing functions and reducing the overall length. Alpha offers an innovative design, where commonly used motions are featured graphically in place of text. It has also been designed to facilitate ease of wiring and maintenance, reducing time for installation. Materials are wear resistant and protect the equipment against water and dust ingress. Alpha can be customized with labels and colors according customer requirements. The ergonomic pendant station features an angle of inclination that allows for optimal view of all control elements when in use. The cable entry gland can accommodate up to and including 24 conductor 16 AWG round PVC pendant cable. All electric connections use screw-type terminals. The emergency stop mushroom push button complies with the EN 418 standards and is equipped with positive opening NC switches.

Overall Dimensions



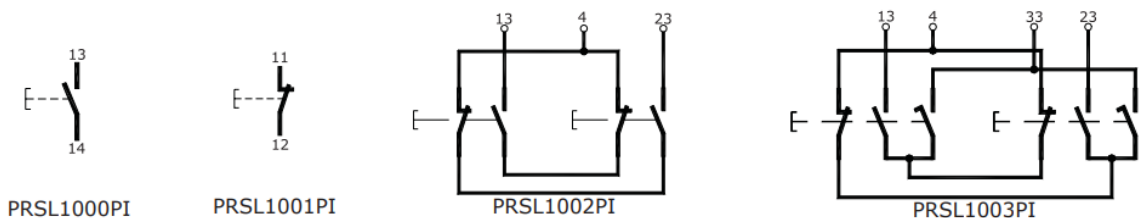
No. of buttons	Weight (kg)	Overall dimensions (mm)						
		A	B	C	D	E	F	G
4	0.470	382	75	169	220	60	78	97
8	0.720	460	75	169	302	60	78	97
12	0.890	537	75	169	382	60	78	97

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Technical Specifications

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Conformity to Community Directives	72/23/CEE 93/68CEE
Conformity to Standards	EN 60204-1 EN 60947-1 EN60947-5-1 EN 60529 EN 418 EN 50013 IEC 536
Ingress Protection	IP 65
Ambient Temperature	Storage -40°C/+70°C Operational -25°C/+70°C
Insulation Category	Class II
Cable Entry	Rubber cable sleeve (Ø 14÷26 mm)
Operating Positions	Any position
Homologations	CE, cCSAus



Switch Technical Specifications

Utilisation Category	AC 15
Rated Operational Current	3 A
Rated Operational Voltage	250 V
Rated Thermal Current	10 A
Rated Insulation Voltage	500 V~
Mechanical Life	0.5×10 ⁶ operations
Terminal Nomenclature	According to EN 50013
Connections	Screw-type terminals
Certifications	CE - UL - (c)UL

Switch Features

The single speed switch PRSL1000PI has 1 NO contact

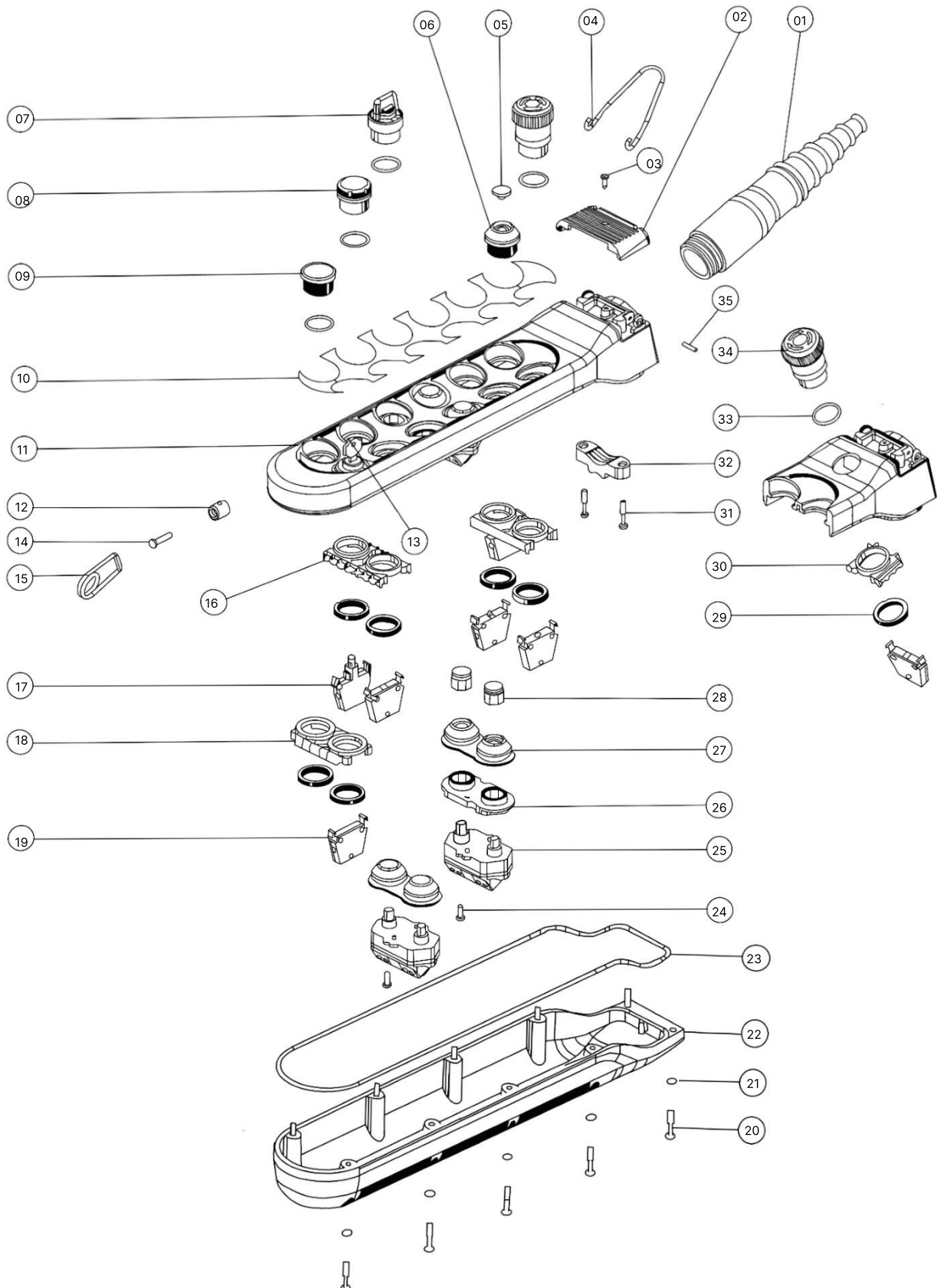
The single speed switch PRSL1001PI has 1 NC contact

The single speed double switch PRSL1002PI features 1 NO contact for each opposing function and an electrical interlock

The 2 speed double switch PRSL1003PI features 1 NO contact for each opposing function, 1 NO shared high speed contact and an electrical interlock

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Detailed Drawing



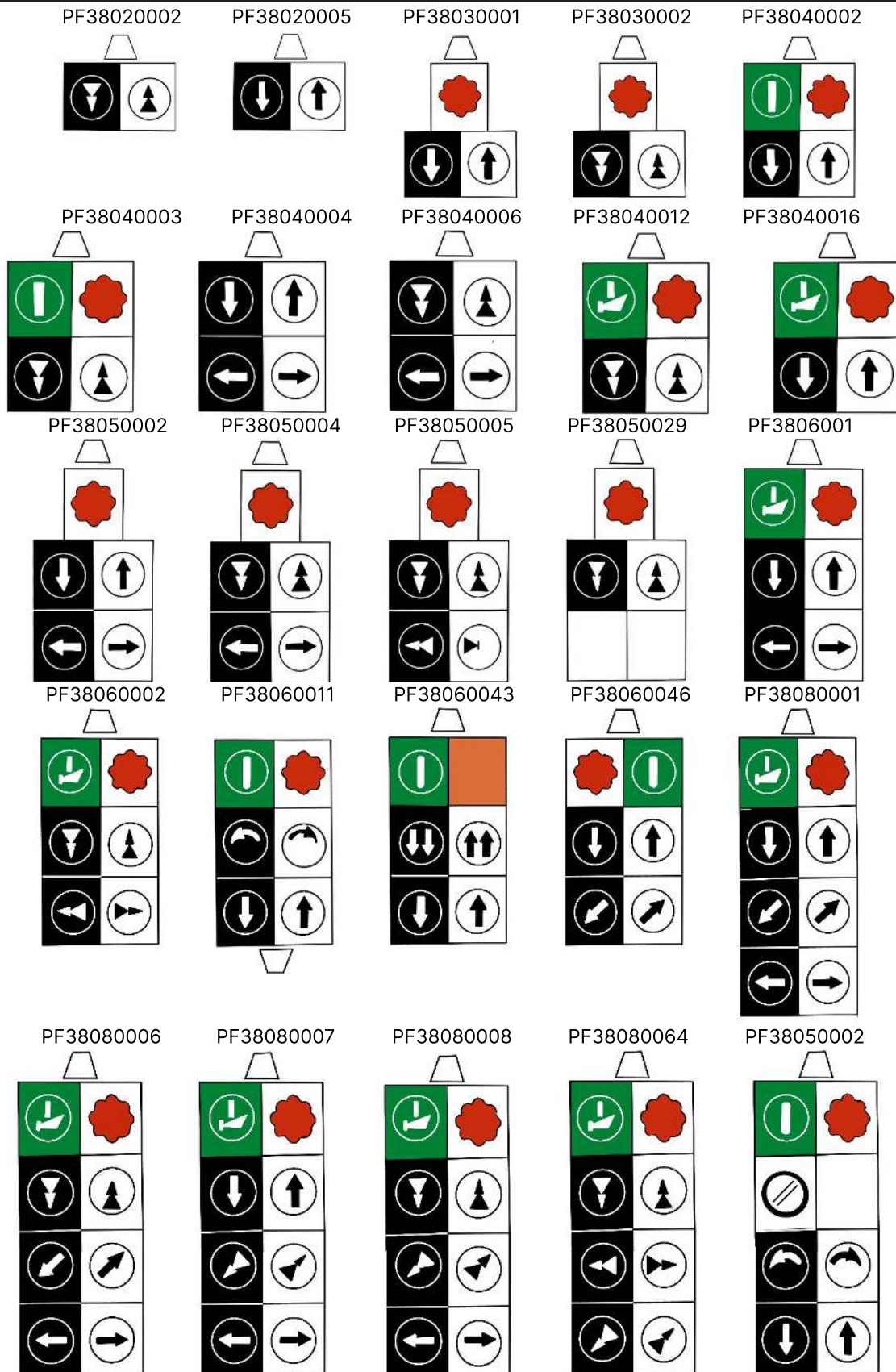
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Switches, Buttons & Components

REFERENCE	PART #	DESCRIPTION
01	PRSL0145PE	Cable sleeve
02	PRSL5603PI	Small cover
03	PRVI0036PE	Screw 3.5×10
04	PRGA0020PE	Upper hook
05	PRSL9551PI	Button for single pushbutton
06 (+29)	PRSL1010PI	Single pushbutton (without button)
07 (+32+29)	PRSL1015PI	Spring return selector switch (on-off)
08 (+32+29)	PRSL1016PI	Red pilot light
09 (+32+29)	PRSL1026PI	Blanking plug
10	PRSL1027PI	Label
11 (+34)	PRSL1012PI	Cover 2/4
12	PRSL1013PI	Support for hook
13 (+32+29)	PRSL1017PI	Key selector switch (on-off)
14	PRVI0126PE	Screw 4×20
15 (12++14)	PRGA0051PE	Lower hook
16	PRSL8736PI	Holding plate for 3+3 switches
17	PRSL1004PI	Lamp holder
18	PRSL8735PI	Holding plate for 2+2 switches
19	PRSL1000PI	1 NO switch
20	PRVI0120PE	Screw 3.9×22
21	PRRN8000PE	Fiber washer
22 (+20+21+23)	PRSL5066PI	Housing 2/3/4/5
23	PRGU0045PE	Gasket
24	PRVI0106PE	Screw 4×10
25	PRSL1002PI	1 speed double switch
26	PRSL8737PI	Holding plate for rubber
27	PRGO0020PE	Rubber for double pushbutton (without buttons)
28	PRSL9552PI	Button for double pushbutton
29	PRSL9184PI	Ring
30	PRSL8739PI	Holding plate for 3 switches
31 (+20)	PRSL1020PI	Cable clamp
32	PRGU0056PE	O-Ring 2075
33 (+32+29)	PRSL1009PI	Emergency stop mushroom pushbutton
34	PRVV1502PE	Pin

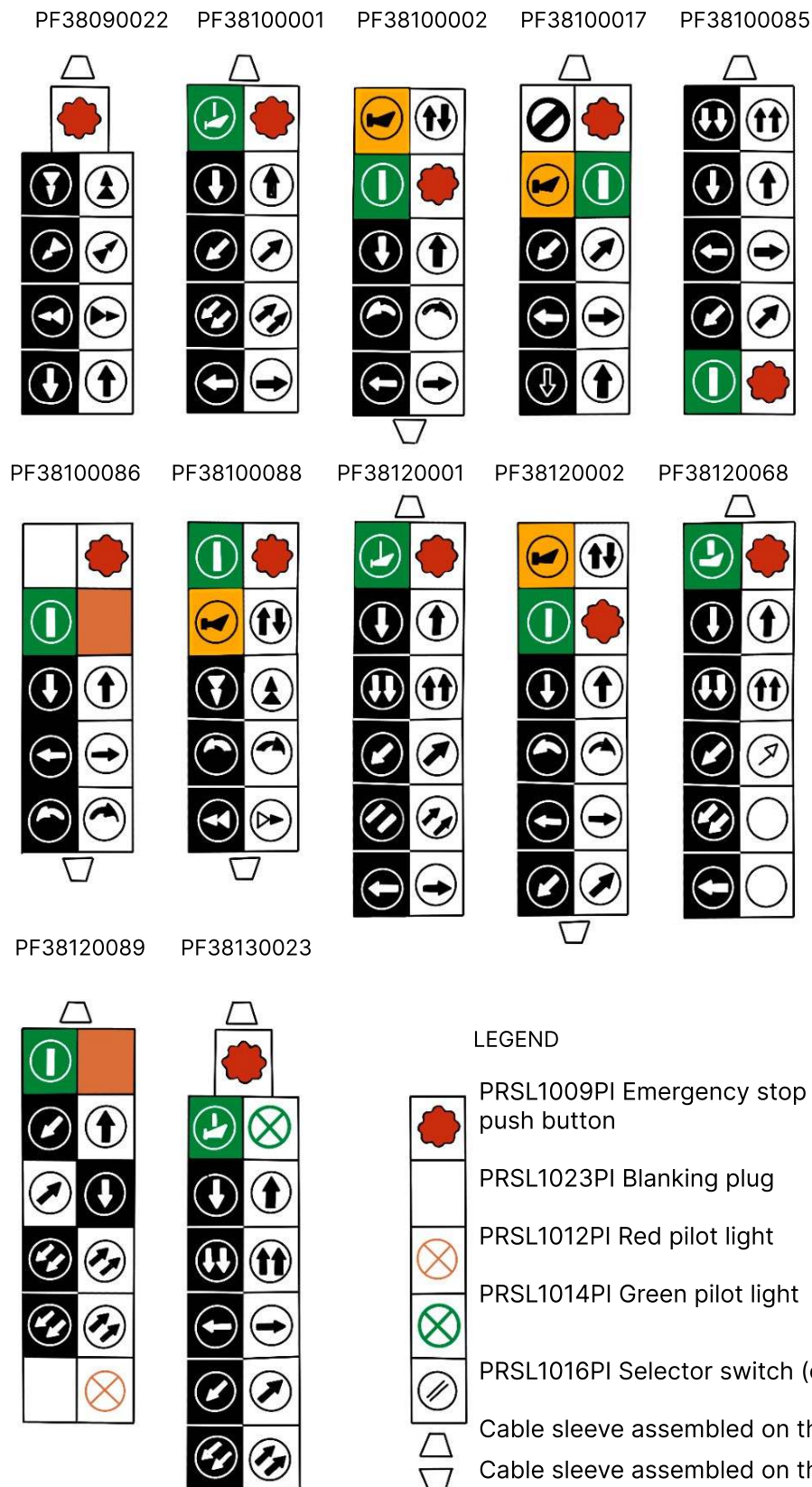
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Standard Control Stations



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Standard Control Stations



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Request Form for Non Standard Control Stations

Symbols and Control Elements



20	PRSL1009PI	Mushroom pushbutton
21	PRSL1012PI	Red pilot light
22	PRSL1013PI	Yellow pilot light
23	PRSL1014PI	Green pilot light
24	PRSL1015PI	Spring return selector switch on-off
25	PRSL1016PI	Selector switch on-off
26	PRSL1017PI	Key selector switch on-off
27	PRSL1023PI	Blanking plug
28	PRSL1024PI	Spring return key selector switch
29	PRSL1026PI	Spring return 3 pos. selector switch
30	PRSL1027PI	3 position selector switch

Single Switches

PART #	
1 PRSL1000PI	1 NO
2 PRSL1001PI	1 NC
3 PRSL1004PI	Lamp holder

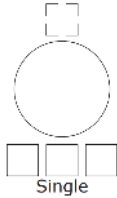
Double Switches

PART #	
1 PRSL1002PI	1 Speed
2 PRSL1003PI	2 Speed

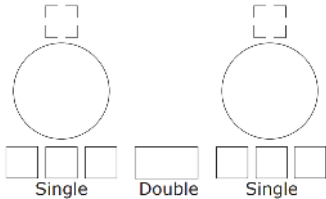
Instructions

- Fill in the pendant station scheme for the number of control elements required.
- Write the number corresponding to the control element required (broken line box). When buttons are required, write the number corresponding to the symbol required and mark the direction of the arrow into the corresponding circle. Personalized symbols and lettering can be requested under Remarks.
- Write the number corresponding to the single or double switches required.
- Mark the appropriate box to show where the cable sleeve must be assembled (top or bottom).

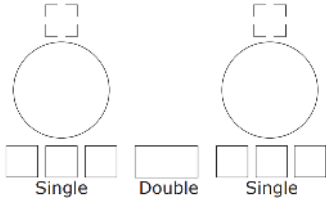
Hook ☐
 Cable sleeve ☐



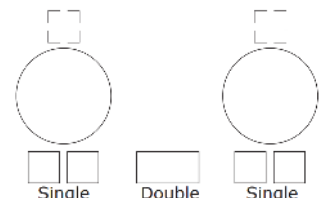
Single



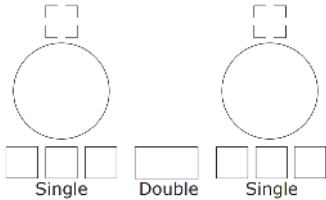
Single Double Single



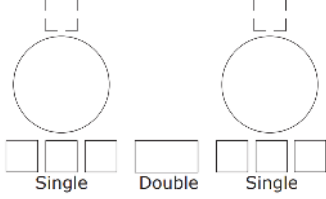
Single Double Single



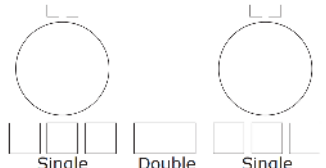
Single Double Single



Single Double Single



Single Double Single



Single Double Single

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Use and Maintenance Instructions

Alpha 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 73/23/CEE and of the Machine Directive 89/392/CEE.

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

The switches (17, 19, 25) 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, 19, 25).

Do not oil or grease the control elements (06, 07, 13, 28, 33) or the switches (17, 19, 25). The installation of the pendant station shall be carried out by 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.

Installation Instructions

1. Remove the screws on the enclosure (22) to open the pendant station.
2. Cut the variable section rubber cable sleeve (01) and insert the cable tight enough to guarantee protection against water and/or dust.
3. Fix the cable to the cable sleeve (01) using a cable tie (not supplied).
4. Strip the cable to a length suitable for wiring the switches (17, 19, 25).
5. Tape the stripped part of the cable- fix the cable inside the pendant station using the cable clamp (31).
6. Connect all the switches (17, 19, 25) according to the contact scheme printed on the switches (tighten the wires into the terminals with a torque equal to 0.6 Nm; insert ability of wires into the switch terminals equal to $2 \times 1.5\text{mm}^2 - 1 \times 2.5\text{mm}^2$).
7. Close the pendant station checking the proper positioning of the rubber (23) in the enclosure (22).

Maintenance Instructions

1. Check the proper tightening of the screws (20) of the enclosure (11, 22)
2. Check the proper tightening of the switch (17, 19, 25) terminal screws
3. Check the wiring conditions (in particular where wires clamp into the switches)
4. Check the conditions of the rubber (23) fit into the enclosure (22), of the rubber of the control elements (06, 27) and of the cable sleeve (01)
5. Check that the plastic enclosure (11, 22) 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.