# CHARLIE 

 Pendant control station

## FEATURES

- Reduced time and costs for installation and wiring: the switches are assembled inside the pendant station without screws, with all the terminals facing the cable inlet and screws in the opposite direction to facilitate wiring.
- A threaded ring is used to secure the enclosure and cover, providing easy access to the internal components without any need for tools or screws.
- Thanks to the hollow handle the control station can be quickly and easily set down onto a pin.
- The emergency stop mushroom pushbutton complies with standard EN 418.
- Positive opening NC contacts for safety functions.
- Mechanical life of switches: 1 million operations.
- IP protection degree: Charlie is classified IP65.
- Extreme temperature resistance: $-25^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$.
- All materials and components used are wear resistant and guarantee protection of the unit against water and dust.

Compact-sized pendant station for auxiliary control. Modern user-friendly design, developed by an industrial design firm on technical, anthropomorphic, futuristic and ergonomic specifications.
Easy to handle and designed to reduce installation time and costs and maintenance down time.

## OPTIONS

- Available in configuration with 2 or 3 actuators.
- Single switches with NO or NC contacts and double switches with NO contacts, one or two speeds, with electrical interlock to prevent simultaneous operation of opposite functions.


## CERTIFICATIONS

- CE marking and EAC certification

CERTIFICATIONS

| Conformity to Community Directives | 2014/35/UE Low Voltage Directive |
| :---: | :---: |
|  | 2006/42/CE Machinery Directive |
| Conformity to CE 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 |
| Markings and homologations | C $\in$ ER[ |

GENERAL TECHNICAL SPECIFICATIONS

| Smbient temperature | Storage $-40^{\circ} \mathrm{C} /+70^{\circ} \mathrm{C}$ |
| :--- | :--- |
| Operational $-25^{\circ} \mathrm{C} /+70^{\circ} \mathrm{C}$ |  |
| IP protection degree | Class II |
| Insulation category | Cable clamp M 20 |
| Cable entry | Spiral cable clamp M 20 |
| Any position |  |

TECHNICAL SPECIFICATIONS OF THE MICROSWITCHES

| Code | PRSL1000PI | PRSL1001PI |
| :---: | :---: | :---: |
| Utilisation category | AC 15 |  |
| Rated operational current | 3 A |  |
| Rated operational voltage | 250 Vac |  |
| Rated thermal current | 10 A |  |
| Rated insulation voltage | 500 Vac |  |
| Mechanical life | $1 \times 10^{6}$ operations |  |
| Connections | Screw-type terminal |  |
| Wires | (UL - (c)UL: use $60^{\circ} \mathrm{C}$ or $75^{\circ} \mathrm{C}$ copper (CU) conductor and wire 16-18 AWG) |  |
| Tightening torque | 0.6 Nm |  |
| Microswitch type | Double break, slow action | Double break, slow action |
| Contacts | 1NO | 1NC <br> (All NC contacts are of the positive opening operation type |
| Scheme |  | $\stackrel{11}{12}_{4}^{11}$ |
| Markings and homologations | ( ¢ ¢1/us IH[ |  |

Code
Utilisation category
Rated operational current
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Rated insulation voltage
Mechanical life
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Microswitch type
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## TECHNICAL SPECIFICATIONS OF THE LAMP HOLDERS

| Code |
| :--- |
| Maximum voltage |
| Maximum power |
| Lamp type |
| Connections |



With spiral cable clamp M20


## EXPLODED DRAWING



## STANDARD CONTROL STATIONS

Standard control stations are equipped with cable clamp M20, hook and electrical interlock between opposite function pushbuttons.

## 2 actuators

| PF39020001 |  |  |  | PF39020002 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Switch scheme | Switch type | Actuator type |  | Switch scheme | Switch type | Actuator type |  |
|  | PRSL1002PI 2NO+common 1 speed | Pushbutton | Pushbutton |  | PRSL1003PI 3NO+common 2 speeds | Pushbutton | Pushbutton |

3 actuators

| PF39030001 |  |  |  | PF39030002 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Switch scheme | Switch type | Actuator type |  | Switch scheme | Switch type | Actuator type |  |
| $\prod_{12}^{11}$ | $\begin{aligned} & \text { PRSL1001PI } \\ & \text { 1NC } \end{aligned}$ | Latched mushroom pushbutton |  | ${ }_{12}^{11}$ | $\begin{aligned} & \text { PRSL1001PI } \\ & \text { 1NC } \end{aligned}$ | Latched mushroom pushbutton |  |
|  | PRSL1002PI 2NO+common 1 speed | Pushbutton | Pushbutton |  | PRSL1003PI 3NO+common 2 speeds | Pushbutton | Pushbutton |



## COMPONENTS

## Switches

Ref. Drawing One speed, 1NO+1NO+common double switch Coription

## Actuators

Ref.

Pilot lights
Ref.

Mushroom pushbuttons
Ref.

Selector switches
Ref.

## Accessories



## CHARLIE - REQUEST FORM FOR NON STANDARD PENDANT STATION

| Control elements | Label symbols |
| :---: | :---: |
| (1) PRTS000001 Single pushbutton |  |
| (2) PRTD000001 Double pushbutton |  |
| (3) PRSL1023PI Blanking plug |  |
| (4) PRSL1009PI Emergency stop mushroom pushbutton | yelow |
| (5) PRSL1012PI Red pilot light |  |
| (6) PRSL1013PI Yellow pilot light | 530 ¢ 03 |
| (7) PRSL1014PI Green pilot light |  |
| (8) PRSL1015PI Selector switch $0 / 1$ spring return | $\llcorner$ |
| (9) PRSL1016PI Selector switch 0/1 maintained positions | [25 (1) |
| (10) PRSL1026PI Selector switch 1/0/2 spring return | $[26]$ ( |
| (11) PRSL1027PI Selector switch 1/0/2 maintained positions |  |
| PRSL1017PI Key selector <br> (12) switch 0/1 maintained positions |  |
| (13) PRSL1024PI Key selector Switch $0 / 1$ spring return |  |

## Single switches

A PRSL1000PI 1NO
B PRSL1001PI 1NC
C PRSL1004PI Lamp holder
Double switches

| D PRSL1002PI | 1 speed |
| :--- | :--- |
| E PRSL1003PI | 2 speeds |




## Instructions

- Fill in the chart according to the number of control elements required.
- Write the number corresponding to the control element required in the circle. All selector switches can be assembled only in the central position.
- In the broken-line box write the number corresponding to the symbol required on the label. Next to the number mark the direction of the arrow and the customized lettering, if requested.
- In the unbroken box write the letter corresponding to the single or double switches.
- Tick the box if the cable clamp or the spiral cable clamp is required.
- The label on the handle of the control station can be customized on request: please write the text requested under Remarks or e-mail the logo.

Remarks

Charlie 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 60204-7) in compliance with the fundamental requirements of the Low Voltage Directive 2014/35/UE 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 $-25^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$, 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 ( $10,16,21)^{\star}$ 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 (10, 16, 21). Do not oil or grease the control elements ( $03,05,07,08,12$ ) or the switches ( 10,16 , 21).

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

- Unscrew and remove the front ring (24) and the cable clamp (26).
- Open the lower cover (14).
- Insert the cable into the cable clamp (26) to a length suitable for wiring the switches.
- Strip the cable to a length suitable for wiring the switches (10, 16, 21).
- Tape the stripped part of the cable.
- Connect all the switches $(10,16,21)$ according to the contact scheme printed on the switches (tighten the wires
into the terminals with a torque equal to 0.6 Nm ( $5.3 \mathrm{lbs} /$ inch); insertability of wires into the switch terminals equal to $2 \times 1.5 \mathrm{~mm}^{2}-1 \times 2.5 \mathrm{~mm}^{2}$ (UL (c)UL: use $60^{\circ} \mathrm{c}$ or $75^{\circ} \mathrm{C}$ copper (CU) conductors))
- Screw the front ring (24) to close enclosure and lower cover (14) (check the proper positioning of the coupling pin of the lower cover (14) and of the rubber (15)).
- Tighten the cable clamp (26) on the cable tight enough to guarantee protection against water and/or dust.


## Periodic maintenance steps

- Check the proper tightening of the front ring (24).
- Check the proper tightening of the cable clamp (26).
- Check the proper tightening of the switch $(10,16,21)$ terminal screws.
- Check all wiring (in particular where wires clamp into the switches).
- Check the conditions of the rubber (15) fit into the lower cover (14) and of the rubber of the control elements $(12,18)$.
- Check that the plastic enclosure $(10,05,13)$ 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.

* Please refer to the exploded drawing in the catalogue.

