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# **CHARLIE** Pendant control station



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.

## **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°C to +70°C.
- All materials and components used are wear resistant and guarantee protection of the unit against water and dust.

## **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
Conformity to Community Directives	2006/42/CE Machinery Directive
	EN 60204-1 Safety of machinery - Electrical equipment of machines
	EN 60947-1 Low-voltage switchgear and controlgear
Conformity to CE Standards	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 € EHI

## **GENERAL TECHNICAL SPECIFICATIONS**

A	Storage -40°C/+70°C
Ambient temperature	Operational -25°C/+70°C
IP protection degree	IP 65
Insulation category	Class II
Cable entry	Cable clamp M20
Cable entry	Spiral cable clamp M20
Operating positions	Any position
Weight	~ 320 g

## **TECHNICAL SPECIFICATIONS OF THE MICROSWITCHES**

Code	PRSL1000PI	PRSL1001PI		
Utilisation category	AC 15			
Rated operational current	3 A			
Rated operational voltage	25	50 Vac		
Rated thermal current		10 A		
Rated insulation voltage	50	00 Vac		
Mechanical life	1x10 <sup>6</sup>	operations		
Connections	Screw-t	ype terminal		
Wires	1x2.5 mm², 2x1.5 mm² (UL - (c)UL: use 60°C or 75°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 (All NC contacts are of the positive opening operation type ↔)		
Scheme	$\begin{bmatrix}1 \\1 \\ 14 \end{bmatrix}^{13}$	E7		
Markings and homologations	C∈ c⊕ <sub>us</sub> [Ⅲ]			



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Code	PRSL1002PI	PRSL1002PI PRSL1003PI				
Utilisation category	AC 15					
Rated operational current	3 A					
Rated operational voltage	250	250 Vac				
Rated thermal current	10	A				
Rated insulation voltage	500	Vac				
Mechanical life	1x10 <sup>6</sup> op	1x10 <sup>6</sup> operations				
Connections	Screw-type terminal					
Wires	1x2.5 mm², 2x1.5 mm² (UL - (c)UL: use 60°C or 75°C copper (CU) conductor and wire 16-18 AWG)					
Tightening torque	0.6	Nm				
Microswitch type	Double switch, one speed	Double switch, two speeds				
Contacts	2NO+common	3NO+common				
Scheme						
Markings and homologations	نې کا کې د د د د د د د د د د د د د د د د د د	Dus [A[				

## **TECHNICAL SPECIFICATIONS OF THE LAMP HOLDERS**

Code	PRSL1004PI
Maximum voltage	125 V
Maximum power	2.6 W
Lamp type	T5.5K 22 mm
Connections	Screw-type terminal
Wires	1x2.5 mm², 2x1.5 mm²
Tightening torque	0.6 Nm
Markings and homologations	CE

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# **OVERALL DIMENSIONS (mm)**

With cable clamp M20



With spiral cable clamp M20











#### **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		PRSL1003PI 3NO+common 2 speeds	Pushbutton Pushbutton

#### **3** actuators

PF39030001			PF39030002		
Switch scheme Switch type Actuator type		Switch scheme	Switch scheme Switch type Actuator type		
[] 12	PRSL1001PI 1NC	Latched mushroom pushbutton	E	PRSL1001PI 1NC	Latched mushroom pushbutton
	PRSL1002PI	Pushbutton		PRSL1003PI 3NO+common 2 speeds	Pushbutton Pushbutton
	2NO+common 1 speed				



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## COMPONENTS

#### Switches

Ref.	Drawing	Description	Scheme	Code
A18	a B	One speed, 1NO+1NO+common double switch		PRSL1002PI
		Two speeds, 3NO+common double switch		PRSL1003PI
A19		1NO single switch	E	PRSL1000PI
A20		1NC single switch	E1 12	PRSL1001PI
A21	<b>B</b>	Lamp holder	-	PRSL1004PI

#### Actuators

Ref.	Drawing	Description	Code
Α4		Blanking plug	PRSL1023PI
A5		Single pushbutton	PRTS000001
A16		Double pushbutton	PRTD000001
A17		Holding plate for double pushbutton	PRSL8737PI

# **Pilot lights**

Ref.	Drawing	Color	Code
		Red	PRSL1012PI
A6	8	Yellow	PRSL1013PI
_	0	Green	PRSL1014PI

# Mushroom pushbuttons

Ref.	Drawing	Description	Code
A3	0000	Latched mushroom pushbutton for emergency stop	PRSL1009PI

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#### **Selector switches**

Ref.	Drawing	Positions	Spring return	Maintained positions	Pull-out position	Code
	~	0/1	Х			PRSL1015PI
A 1		0/1		Х		PRSL1016PI
AI	Ö	1/0/2	Х			PRSL1026PI
		1/0/2		Х		PRSL1027PI
4.0		0/1		Х	0	PRSL1017PI
A2		0/1	Х		0	PRSL1024PI

#### Accessories

Ref.	Drawing	Description	Code	
A7	$\diamond$	Hook	PRGA0015PE	
	4 t	Label	ET39030001	
	T A	Label	ET39030021	
		Label	ET39030014	
A8		Label	ET39030069	
		Label	ET39030015	
	GREEN RED	Label	ET39030007	
A9	4	TER label for handle	PRET0110PE	
A10	Co	Cable clamp M20 PRPS0064PE		
A11		Spiral cable clamp M20	PRPS0025PE	
A12	Ĩ	Closing ring for cable clamp and spiral cable clamp PRSL5524PI		
A13		Cover	Cover PRSL5008PI	
A14	6 <b>@</b>	Holding plate for 3 switches	PRSL8739PI	
A15		Holding plate for 2+2 switches	PRSL8735PI	
A22		Enclosure PRSL5518PI		

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Control elements	Label symbols	
1 PRTS000001 Single pushbutton		Cable clamp M20
2 PRTD000001 Double pushbutton	20 1 27 1 34	Spiral cable clamp M20
③ PRSL1023PI Blanking plug	[21] [28] (11) [35] (11)	
PRSL1009PI Emergency stop mushroom pushbutton	YELLOW [22] 29] (1) [36] (1)	Single
<sup>5</sup> PRSL1012PI Red pilot light		
6 PRSL1013PI Yellow pilot light	23 6 30 37 37	
7 PRSL1014PI Green pilot light	BLACK	
PRSL1015PI Selector switch 0/1 spring return		
PRSL1016PI Selector switch 0/1 maintained positions		$\bigcirc$
(10) PRSL1026PI Selector switch 1/0/2 spring return		Single Double Single
(1) PRSL1027PI Selector switch 1/0/2 maintained positions		onigie officie
PRSL1017PI Key selector (12) switch 0/1 maintained positions		
(13) PRSL1024PI Key selector switch 0/1 spring return		Instructions - Fill in the chart according to the number of control
Single switches		<ul> <li>elements required.</li> <li>Write the number corresponding to the control element required in the circle. All selector switches can be assembled only in the central position.</li> <li>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</li> </ul>
A PRSL1000PI 1NO		
B PRSL1001PI 1NC		
C PRSL1004PI Lamp ho	lder	
Double switches		<ul> <li>lettering, if requested.</li> <li>In the unbroken box write the letter corresponding to</li> </ul>
D PRSL1002PI 1 speed		<ul> <li>the single or double switches.</li> <li>Tick the box if the cable clamp or the spiral cable clamp is required.</li> <li>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.</li> </ul>
E PRSL1003PI 2 speeds		
LIFNSLIUUSPI Z Speeds		

#### Remarks



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# **USE AND MAINTENANCE INSTRUCTIONS**

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 60204-1) 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  $-25^{\circ}$ C to  $+70^{\circ}$ 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)\* 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 lbs/ inch); insertability of wires into the switch terminals equal to  $2x1.5mm^2 - 1x2.5 mm^2$  (UL (c)UL: use 60°c or 75°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.