# **ALPHA**

## **Pendant control station**



Pendant control station for auxiliary control with an innovative and modern design, where all graphic elements refer to specific technical functions. Size and shape of Alpha guarantee easy handling as a result of a thorough analysis of the ergonomic features combined with the research of a graphic style suitable for a modern industrial environment.

## **FEATURES**

- Reduced installation and wiring time and costs: the switches feature terminals facing the cable clamp of the control station and screws on the opposite side to facilitate wiring.
- The control station has an angle of inclination giving the operator the best view of all control elements and enabling a natural, comfortable working position.
- The emergency stop mushroom pushbutton complies with standard ISO 13850.
- · Mechanical life of switches: 1 million operations.
- IP protection degree: Alpha 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 configurations with 2 to 13 actuators arranged on a double row.
- Single or double switches with NO or NC contacts featuring one or two speeds.
- Wide range of actuators: pushbuttons, selector switches and key-selector switches in different configurations, pilot lights, latched mushrooms pushbuttons with rotation or key-operated release.
- Available with label (symbols and lettering) to be applied next to the actuators.

## **CERTIFICATIONS**

· CE marking and EAC certifications.

Fill in the "request form" for accurate product configuration.

## **CERTIFICATIONS**

	EN 60204-1 Safety of machinery - Electrical equipment of machines
Conformity to CE Standards	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
	ISO 13850 Safety of machinery - Emergency stop - Principles for design
Markings and homologations	C € ENI

## **GENERAL TECHNICAL SPECIFICATIONS**

Ambient temperature	Storage -40°C/+70°C
	Operational -25°C/+70°C
IP protection degree	IP 65
Insulation category	Class II
Cable entry	Rubber cable sleeve (Ø 14÷26 mm)
Operating positions	Any position

## **TECHNICAL SPECIFICATIONS OF THE SWITCHES**

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	1x10 <sup>6</sup> operations		
Connections	Screw-type terminals		
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	
Switch type	Double break, slow action	Double break, slow action	
Contacts	1NO	1NC	
Scheme	E		
Markings and homologations	C € c(V) us FH[		

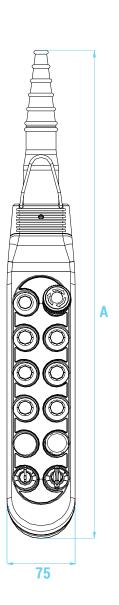


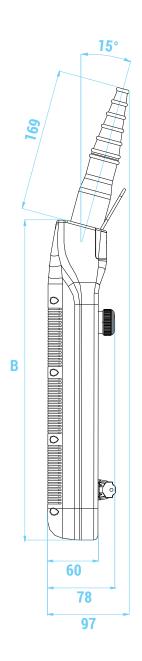
Code	PRSL1002PI PRSL1003PI			
Utilisation category	AC 15			
Rated operational current	3 A			
Rated operational voltage	250	Vac		
Rated thermal current	10	) A		
Rated insulation voltage	500	Vac		
Mechanical life	1x10 <sup>6</sup> operations			
Connections	Screw-type terminals			
Wires	1x2.5 mm², 2x1.5 mm² (UL - (c)UL: use 60°C or 75°C copper (CU) conductor and wire 16-18 AWG)			
Tightening torque	0.6 Nm			
Switch type	Double switch, 1 speed	Double switch, 2 speeds		
Contacts	2NO+common	3NO+common		
Scheme	13 4 23	13 4 33 23		
Markings and homologations	), ))	Dus [A[		

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

Code	PRSL1004PI
Maximum voltage	125 V
Maximum power	2.6 W
Lamp type (not supplied)	T5.5K 22 mm
Connections	Screw-type terminals
Wires	1x2.5 mm², 2x1.5 mm²
Tightening torque	0.6 Nm
Markings and homologations	(€

## OVERALL DIMENSIONS (mm)





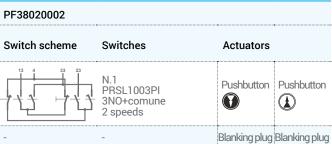
No. of actuators	Dimensions (n	nm)	
	Α	В	
2 - 3 - 4 - 5	382	222	
6 - 7 - 8 - 9	462	302	
10 - 11 - 12 - 13	542	382	

## STANDARD CONTROL STATIONS

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

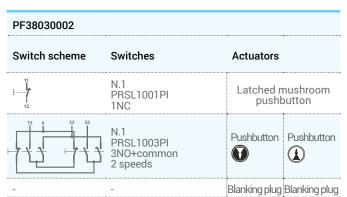
#### 2 actuators

PF38020005			PF38020002
Switch scheme	Switches	Actuators	Switch scheme
13 4 23	N.1 PRSL1002PI 2NO+common 1 speed	Pushbutton Pushbuttor	13 4 33
-	-	Blanking plug Blanking plu	g -



## 3 actuators

PF38030001				
Switch scheme Switches Actuators				
11 E	N.1 PRSL1001PI 1NC	Latched mushroom pushbutton		
13 4 23 E	N.1 PRSL1002PI 2NO + common 1 speed	Pushbutton Pushbutton		
-	-	Blanking plug Blanking plug		



#### 4 actuators

PF38040002					
Switch scheme	Switch scheme Switches Actuators				
E	N.1 PRSL1000PI PRSL1001F 1NO 1NC	Pushbutton Latched mushroom pushbutton			
13 4 23	N.1 PRSL1002PI 2NO + common 1 speed	Pushbutton Pushbutton			

PF38040003					
Switch scheme Switches Actuators					
E\( \frac{13}{14} \)	E7	N.1 PRSL1000PI 1NO	N.1 PRSL1001PI 1NC	Pushbutton	Latched mushroom pushbutton
13 4	33 23	N.1 PRSL1003F 3N0+comm 2 speeds	Pl	Pushbutton	

PF38040004				
Switch scheme Switches Actuators				
13 4 23 E- E- E	N.1 PRSL1002PI 2N0+common 1 speed	Pushbutton Pushbutton		
[	N.1 PRSL1002PI 2N0+common 1 speed	Pushbutton Pushbutton		

PF38040006				
Switch scheme		Actuators		
13 4 33 23	N.1 PRSL1003PI 3N0+common 2 speeds	Pushbutton	<b>(1)</b>	
13 4 23	N.1 PRSL1002PI 2NO+common 1 speed	Pushbutton	Pushbutton	

PF38040012	PF38040012				PF38040016				
Switch scheme	Switches	Actuators		Switch	scheme	Switches		Actuators	
E	N.2 PRSL1000PI 1N0 1NC	Pushbutton  One of the property of the propert	Latched mushroom pushbutton	E	E	PRSL1000PI	N.1 PRSL1001PI 1NC	Pushbutton  GREEN	Latched mushroom pushbutton
13 4 33 23	PRSL1003PI 3NO+common 2 speeds	Pushbutton	Pushbutton	13	23	N.1 PRSL1002P 2N0 + comr 1 speed		Pushbutton	Pushbutton

## **5** actuators

PF38050003				PF38050004				
Switch scheme	Switches	Actuators		Switch scheme	Switches	Actuators		
E	N.1 PRSL1001PI 1NC	Latched n pushb		E	N.1 PRSL1001PI 1NC	Latched n pushb	nushroom outton	
E- E- 23	N.1 PRSL1002PI 2NO + common 1 speed	Pushbutton	Pushbutton	13 4 33 23	N.1 PRSL1003PI 3NO+common 2 speeds	Pushbutton	Pushbutton	
13 4 23	N.1 PRSL1002PI 2NO+common 1 speed	Pushbutton	Pushbutton	13 4 23	N.1 PRSL1002PI 2NO+common 1 speed	Pushbutton	Pushbutton	

## 6 actuators

PF38060001				PF38060002					
Switch scheme	Switches	Actuators		Switch s	cheme	Switches		Actuators	
E	N.2 PRSL1000PI PRSL1001P 1NO 1NC	Pushbutton  GREEN	Latched mushroom pushbutton	E\13	E	N.2 PRSL1000PI 1NO	N.1 PRSL1001PI 1NC	Pushbutton  GREEN	Latched mushroom pushbutton
[	N.1 PRSL1002PI 2NO + common 1 speed	Pushbutton	Pushbutton	13 4	33 23	N.1 PRSL1003P 3N0+comm 2 speeds		Pushbutton	Pushbutton
13 4 23	N.1 PRSL1002PI 2NO+common 1 speed	Pushbutton	Pushbutton	13 1	33 23	N.1 PRSL1003P 3NO+comm 2 speeds		Pushbutton	Pushbutton
-	-	Blanking plug	Blanking plug	-		-		Blanking plug	Blanking plug



## 8 actuators

PF38080001		***************************************		PF38080006					
Switch scheme	Switches	Actuators		Switch scher	me	Switches		Actuators	
E	N.2 PRSL1000PI 1NO 1NC	mus	tched shroom nbutton	E	ſ	N.2 PRSL1000PI 1NO	N.1 PRSL1001PI 1NC	Pushbutton  GREEN	Latched mushroom pushbutton
13 4 23	N.1 PRSL1002PI 2NO + common 1 speed	Pushbutton Push	hbutton	13 4 33		N.1 PRSL1003PI 3N0+common 2 speeds		Pushbutton	Pushbutton
E E E	N.1 PRSL1002PI 2NO+common 1 speed	Pushbutton Push	hbutton	13 4	23	N.1 PRSL1002PI 2N0+common 1 speed		Pushbutton	Pushbutton
13 4 23	N.1 PRSL1002PI 2NO+common 1 speed	Pushbutton Push	hbutton	E- E-	23	N.1 PRSL1002F 2NO+comm 1 speed		Pushbutton	Pushbutton

PF38080007		_		PF38080008					
Switch scheme	Switches	Actuators		Switch scheme	Switches		Actuators		
E	N.2 PRSL1000PI PRSL1001PI 1NO 1NC	Pushbutton GREEN	Latched mushroom pushbutton	E	N.2 PRSL1000P 1NO	N.1 PRSL1001PI 1NC	Pushbutton GREEN	Latched mushroom pushbutton	
[	N.1 PRSL1002PI 2NO + common 1 speed	Pushbutton	Pushbutton 1	13 4 33 23	N.1 PRSL1003F 3N0+comm 2 speeds		Pushbutton	Pushbutton	
13 4 33 23	N.1 PRSL1003PI 3NO+common 2 speeds	Pushbutton	Pushbutton	13 4 33 23	N.1 PRSL1003F 3N0+comm 2 speeds		Pushbutton	Pushbutton	
13 4 23	N.1 PRSL1002PI 2NO+common 1 speed	Pushbutton	Pushbutton	13 4 23	N.1 PRSL1002F 2NO+comm 1 speed		Pushbutton	Pushbutton	

## 10 actuators 12 actuators

PF38100001			PF38120001		
Switch scheme	Switches	Actuators	Switch scheme	Switches	Actuators
E	N.2 PRSL1000PI 1NO N.1 PRSL1001PI 1NC	Pushbutton Latched mushroom pushbutton	E	N.2 PRSL1000PI 1NO N.1 PRSL1001PI 1NC	Pushbutton Latched mushroom pushbutton
13 4 23	N.1 PRSL1002PI 2NO + common 1 speed	Pushbutton Pushbutton	13 4 23	N.1 PRSL1002PI 2NO + common 1 speed	Pushbutton Pushbutton
13 4 23	N.1 PRSL1002PI 2NO+common 1 speed	Pushbutton Pushbutton	13 4 23	N.1 PRSL1002PI 2NO + common 1 speed	Pushbutton Pushbutton
13 4 23	N.1 PRSL1002PI 2NO+common 1 speed	Pushbutton Pushbutton	13 4 23	N.1 PRSL1002PI 2NO+common 1 speed	Pushbutton Pushbutton
13 4 23	N.1 PRSL1002PI 2NO+common 1 speed	Pushbutton Pushbutton	13 4 23	N.1 PRSL1002PI 2NO+common 1 speed	Pushbutton
-	-	Blanking plug Blanking plug	13 4 23	N.1 PRSL1002PI 2N0+common 1 speed	Pushbutton Pushbutton

## STANDARD PENDANT CONTROL STATIONS WITH CABLE OUTPUT ON THE BOTTOM

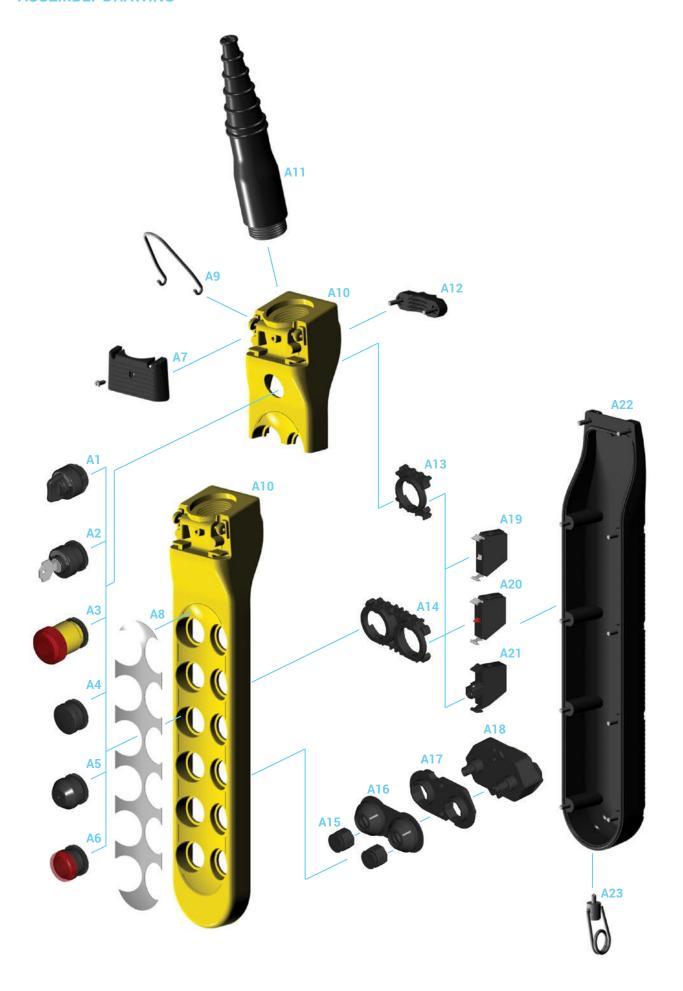
These pendant control stations are upside down, i.e. the cable output is on the bottom. Standard control stations are equipped with cable sleeve, hook and electrical interlock between opposite function pushbuttons.

## 10 actuators 12 actuators

PF38100002			PF3812	20002			_	_
Switch scheme	Switches	Actuators	Switch	scheme	Switches		Actuators	
E\( \bigc\) 13	N.1 PRSL1000PI PRSL1000F 1NO 1NO	Pushbutton Pushbuttor	E	E\13		N.1 PRSL1000PI 1NO	Pushbutton  YELLOW	Pushbutton
E	N.1 N.1 PRSL1000PI PRSL1001F 1NO 1NC	Pushbutton Latched mushroom pushbuttor		E	N.1 PRSL1000PI 1NO	N.1 PRSL1001PI 1NC	Pushbutton  GREEN	Latched mushroom pushbutton
13 4 23	N.1 PRSL1002PI 2NO + common 1 speed	Pushbutton Pushbuttor	E 13	23	N.1 PRSL1002P 2N0 + comr 1 speed		Pushbutton	Pushbutton
13 4 23	N.1 PRSL1002PI 2NO+common 1 speed	Pushbutton Pushbuttor	F 13	4 23		PRSL1002PI 2N0+common		Pushbutton
13 4 23	N.1 PRSL1002PI 2NO+common 1 speed	Pushbutton  Pushbuttor	[- ] <sup>13</sup>	23		PRSL1002PI 2N0+common		Pushbutton
-	-	Blanking plug Blanking plu	13	4 23	N.1 PRSL1002P 2NO+comm 1 speed		Pushbutton	Pushbutton



## **ASSEMBLY DRAWING**



Refer to the following tables for descriptions of components: "Switches", "Actuators", "Pilot lights", "Mushroom pushbuttons", "Selector switches" and "Accessories".

## **COMPONENTS**

## **Switches**

Ref.	Drawing	Description	Scheme	Code
		Double switch, 1 speed, 2NO + common	13 4 23	PRSL1002PI
A18		Double switch, 2 speeds, 3NO + common	13 4 33 23	PRSL1003PI
A19		1NO switch	E\( \frac{13}{14} \)	PRSL1000PI
A20		1NC switch	E1	PRSL1001PI
A21		Lamp holder (without bulb)	-	PRSL1004PI

## **Actuators**

Ref.	Drawing	Description	Code
A4		Blanking plug	PRSL1023PI
A5		Single pushbutton	PRTS000001
A15+A16		Double pushbutton with rubber	PRTD000001
A16		Rubber for double pushbutton	PRG00020PE
A17	00	Holding plate for double pushbutton	PRSL8737PI

## Pilot lights

Ref.	Drawing	Colour	Code
		Red	PRSL1012PI
A6		Yellow	PRSL1013PI
		Green	PRSL1014PI

## **Mushroom pushbuttons**

Ref.	Drawing	Description	Code
А3		Latched mushroom pushbutton for emergency stop	PRSL1009PI



## **Toggle selector switches**

Def	Duning	Danisiana	Desitions		tion on co	ontrol station *	· Cada
Ref.	Drawing	Positions		Α	В	С	Code
		0-1	Spring return		Χ	Χ	PRSL1040PI
		0-1	Spring return	Χ			PRSL1041PI
		0-1	Maintained positions		Χ	Х	PRSL1029PI
		0-1	Maintained positions	Х			PRSL1030PI
		1-0-2	Spring return		Χ		PRSL1026PI
A1		1-0-2	Spring return	Х			PRSL1042PI
		1-0-2	Maintained positions		Х		PRSL1027PI
		1-0-2	Maintained positions	Х			PRSL1031PI
		1-0-2	Maintained positions - Symbols I-I + II-II		Х		PRSL1063PI
		1-0-2	Pos. 1 manteined - Pos. 2 spring return		Х		PRSL1038PI
		1-2	Maintained positions		Х		PRSL1034PI

## **Key selector switches**

Ref.	Drawing	Positions		Posit	Position on control station *		
				Α	В	С	Code
A2	<b>2000</b>	0-1	Spring return		Χ	Х	PRSL1024PI
		0-1	Spring return	Х			PRSL1049PI
		0-1	Maintained positions		Χ	Χ	PRSL1046PI
		0-1	Maintained positions	Х			PRSL1047PI
		1-0-2	Spring return		Χ		PRSL1059PI
		1-0-2	Spring return	Х			PRSL1043PI
		1-0-2	Maintained positions		Χ		PRSL1048PI
		1-0-2	Maintained positions	Х			PRSL1050PI
		1-0-2	Spring return Simultaneous activation of 2 switches		Χ		PRSL1057PI

## \* Position on control station:

- A = central position, with vertical holding plate for 3 switches.
  B = first and last double rows, with holding plate for 3+3 switches.
  C = central double rows, with holding plate for 2+2 switches.

## **Accessories**

Ref.	Drawing	Description	Code
A7		Cable cover	PRSL5603PI
A8		Label	ET38xxxxxx Codes on request
A9		Hook	PRGA0020PE
		Cover 2/4 actuators	PRSL5607PI
		Cover 3/5 actuators	PRSL5611PI
A10		Cover 6/8 actuators	PRSL5608PI
A10		Cover 7/9 actuators	PRSL5612PI
		Cover 10/12 actuators	PRSL5609PI
		Cover 11/13 actuators	PRSL5613PI

## **Accessories**

Ref.	Drawing	Description	Code
A11		Cable sleeve	PRSL0145PE
A12		Cable clamp	PRSL1020PI
A13		Holding plate for 3 switches	PRSL8739PI
A14		Holding plate for 2+2 switches	PRSL8735PI
		Enclosure 2/3/4/5 actuators	PRSL5066PI
A22		Enclosure 6/7/8/9 actuators	PRSL5067PI
		Enclosure 10/11/12/13 actuators	PRSL5068PI
A23	6	Lower hook	PRGA0051PE



## **ALPHA - REQUEST FORM FOR NON STANDARD CONTROL STATION**

#### **Instructions**

(See next page for list of components and legends).

Fill in the chart to the left according to the number of control elements required.

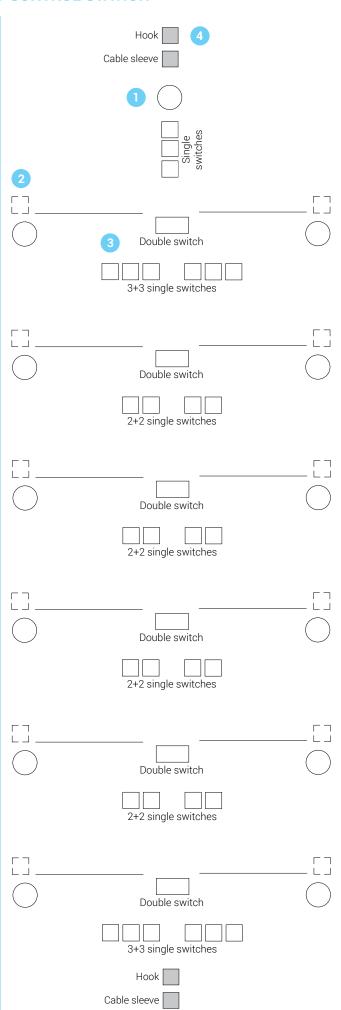
**Control elements**: enter the number corresponding to the control element required in the circle (1) to (27) according to the legend.

ATTENTION: selector switches can be mounted only in specific positions, as specified in the switch activation schemes (see legend).

2 **Label symbols:** in the broken-line box enter the number corresponding to the symbol required on the label (55) to (68) according to the legend.

Next to the number mark the direction of the arrow and the customized lettering, if requested.

- **Switches:** in the unbroken boxes enter the letters corresponding to the single or double switches required (A to E) according to the legend.
- 4 Cable sleeve and hook: tick the appropriate boxes to show where the cable sleeve and the hook must be assembled (top or bottom).



## 0

#### **Legend - Control elements**

#### \* SWITCH ACTIVATION

It is possible to mount up to 2 switches for each selector switch, but no switch in the central position (NA). You can mount the selector switch in the central position when the scheme shows a vertical holding plate for 3 switches, in the first and last double row when there is a holding plate for 3+3 switches, or in the double central rows when there is a holding plate for 2+2 switches. The scheme also shows which position of the selector operates on each switch.

#### **Pushbuttons**

- 1) PRTD000001 Double pushbutton
- (2) PRTS000001 Single pushbutton

#### Blanking plugs and mushroom pushbuttons

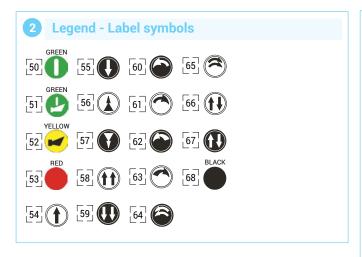
- (3) PRSL1023PI Blanking plug
- (4) PRSL1009PI Emergency stop mushroom pushbutton

#### **Toggle selector switches** SWITCH ACTIVATION\* 1 NA 1 1 NA 1 PRSL1040PI 0-1 spring return NA 1 1 NA PRSL1041PI 0-1 spring return 1 NA 1 1 NA 1 PRSL1029PI (10) 0-1 maintained positions NA 1 1 NA PRSL1030PI 0-1 maintained positions (12) PRSL1026PI 1 NA 2 1 NA 2 1-0-2 spring return (13) PRSL1042PI 1-0-2 spring return (14) PRSL1027PI 1 NA 2 1 NA 2 1-0-2 maintained positions (15) PRSL1031PI NA 1-0-2 maintained positions PRSL1063PI (16) 1-0-2 maintained positions 1 NA 2 1 NA 2 symbols I-I + II-II PRSL1038PI 1 NA 2 1 NA 2 1-0-2 position 1 manteined position 2 spring return PRSL1034PI 1 NA 2 1 NA 2

## **Pilot lights**

- (5) PRSL1012PI Red pilot light
- (6) PRSL1013PI Yellow pilot light
- (7) PRSL1014PI Green pilot light

Key s	selector switches	SWITCH ACTIVATION*
19)	PRSL1024PI 0-1 spring return	1 NA 1 1 NA 1 NA 1 1 NA
20)	PRSL1049PI 0-1 spring return	1 NA 1
21)	PRSL1046PI 0-1 maintained positions	1 NA 1 1 NA 1 NA 1 1 NA
22)	PRSL1047PI 0-1 maintained positions	1 NA 1
23)	PRSL1059PI 1-0-2 spring return	1 NA 2 1 NA 2
24)	PRSL1043PI 1-0-2 spring return	2 NA 1
25)	PRSL1048PI 1-0-2 maintained positions	1 NA 2 1 NA 2
26)	PRSL1050PI 1-0-2 maintained positions	2 NA 1
27)	PRSL1057PI 1-0-2 spring return simultaneous activation of 2 switches	1-2 NA 1-2   1-2 NA 1-2



1-2 maintained positions

