

MIKE

Pendant Control Station



Pendant station for auxiliary control of modern ergonomic shape, easy to handle, user friendly and sturdy.

Mike is the result of careful analysis of ergonomic aspects and it is rich in high-performing features to suit the most demanding requirements.

FEATURES

- Reduced installation and wiring time and costs: the cable inlet and the switches fitted in the base of the control station are separated from the actuators, installed on the cover.
- Innovative suspension system with concealed cables to enable rapid, correct, ergonomic installation.
- Rubber pushbuttons with symbol disks to ensure protection against dust and prevent jamming when the control station is used in harsh environments.
- The emergency stop mushroom pushbutton complies with standard ISO 13850.
- Positive opening NC contacts for safety functions.
- Mechanical life of pushbuttons and switches: 10 million operations.
- IP protection degree: Mike is classified IP66, IP67 and IP69K.
- NEMA protection degree: black Mike is classified Type 1, 4 and 4X*; yellow Mike is classified Type 1, 4 and 4X* for indoor use only.
- Extreme temperature resistance: -40°F to +176°F (-40°C to +80°C).
- All materials and components used are wear resistant and guarantee protection of the unit against water and dust.

OPTIONS

- Available in configuration from 4 to 15 actuators.
- Available with specific protection for actuators mounted on the bottom of the control station.
- 1NO or 1NC switches, LEDs voltage 24/48 Vac/dc or

110/230 Vac, and potentiometers.

- Mechanical interlock to prevent simultaneous operation of opposite functions.
- Wide range of actuators in different colours: one or two speed pushbuttons, selector switches and key-selector switches in various operation configurations, pilot lights, impulse or latched mushroom pushbuttons with rotation or key-operated release.
- One speed pushbuttons and selector switches available in illuminated version in a range of colours.
- Latched on-off maintained pushbuttons granting a visual perception of the actual button activation.
- Available with labels (symbols and lettering) to be applied next to the actuators or with pushbuttons with two-colour moulded permanent symbols.

CERTIFICATIONS

- CE marking, cULus* marking and EAC certification.
- Mike is available, upon request, with the SIL1 certification (Safety Integrity Level 1), according to Standard IEC61508.
- Complies with accident prevention regulation BGV C 1 (only for Germany).



CERTIFICATIONS

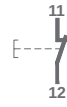
Conformity to Community Directives	2014/35/UE Low Voltage Directive
	2006/42/CE Machinery Directive
Conformity to CE Standards	EN 60204-1 Safety of machinery - Electrical equipment of machines
	EN 60947-1 Low-voltage switchgear and controlgear
	EN 60947-5-1 Low-voltage switchgear and controlgear - Control circuit devices and switching elements - Electromechanical control circuit devices
	EN 60947-5-5 Low-voltage switchgear and controlgear - Control circuit devices and switching elements - Electrical emergency stop device with mechanical latching function
	EN 60529 Degrees of protection provided by enclosures
	ISO 13850 Safety of machinery - Emergency stop - Principles for design
Conformity to cULus Standards	CSA-C22.2 No 14-13 Industrial Control Equipment
	UL 508 Industrial Control Equipment
SIL1	IEC 61508:2010 Part 2-4-6-7 Functional safety of electrical / electronic / programmable electronic safety-related systems
BGV C 1	Regulations for the prevention of accidents BGV C 1 (only for Germany)
Markings and homologations	CE cULus* EAC

GENERAL TECHNICAL SPECIFICATIONS

Ambient temperature	Storage -40°F/+176°F (-40°C/+80°C)
	Operational -40°F/+176°F (-40°C/+80°C)
IP protection degree	IP 66 / IP 67 / IP 69K
NEMA protection degree	Black Mike Type 1, 4 and 4X*
	Yellow Mike Type 1, 4 and 4X* indoor use only
Insulation category	Class II
Cable entry	Rubber cable sleeve (Ø 8÷26 mm)
	Cable clamp M20
Operating positions	Any position
Mechanical life	1 speed pushbutton: 10x10 ⁶ operations
	2 speed pushbutton: 10x10 ⁶ operations
	Illuminated pushbutton: 10x10 ⁶ operations

* Not available on all versions.

TECHNICAL SPECIFICATIONS OF THE MICROSWITCHES

Code	PRSL1800PI	PRSL1801PI
Utilisation category	AC 15	
Rated operational current	3 A	
Rated operational voltage	250 Vac	
Rated thermal current	10 A	
Rated insulation voltage	300 Vac	
Electrical Reliability EN 60947-5-4	$\lambda < 2.5 \times 10^{-8}$ at 24 V, 5 mA, 5×10^6 cycles	-
Mechanical life	10×10^6 operations	
Connections	Screw-type terminal	
Wires	2x0.5mm ² - 2x1.5 mm ² - 1x2.5 mm ² (UL (c)UL: use 60°C or 75°C copper (CU) conductors and stiff or flexible wire 14-22 AWG)	
Tightening torque	0.5 Nm	
Microswitch type	Double break, slow action	
Contacts	1 NO	1 NC (All NC contacts are of the positive opening operation type )
Scheme		
Markings and homologations	  	

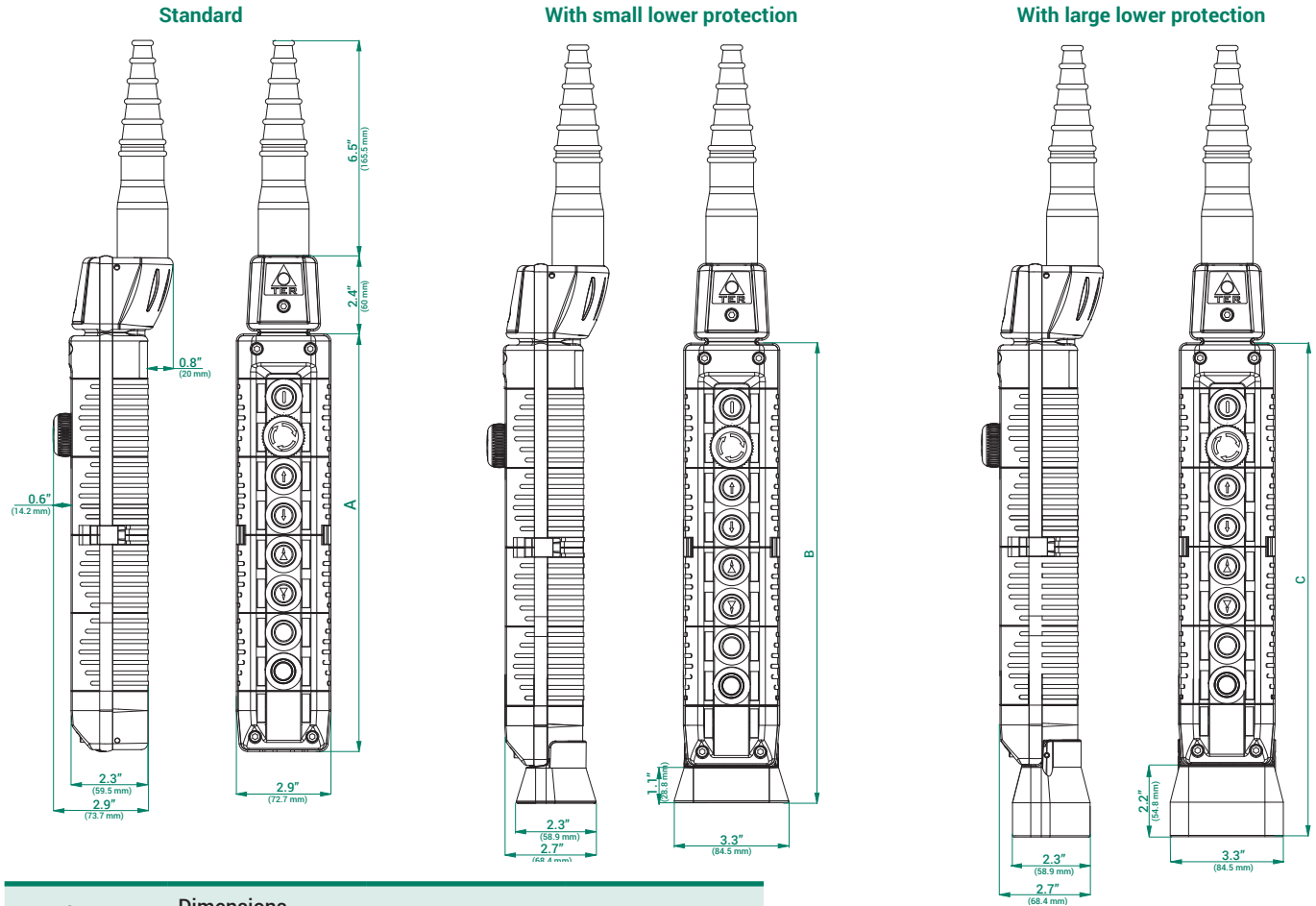
TECHNICAL SPECIFICATIONS OF THE LEDS

Code	PRSL1820PI	PRSL1821PI
Rated operational voltage	24-48 Vac/dc	110-240 Vac
Rated current consumption	1.30-2.70 mA	1.15-2.50 mA
Scheme		
Markings and homologations	  	

TECHNICAL SPECIFICATIONS OF THE POTENTIOMETERS

Code	PRVV9079PE	PRVV9019PE	PRVV9039PE
Ohmic value	1 kΩ	4.7 kΩ	10 kΩ
Life time	15×10^3 movements (minimum)		
Operational ambient temperature	-13°F/+158°F (-25°C/+70°C)		
Mechanical angle	300°		
Actual electrical angle	267°		
Ohmic value tolerance	±20%		

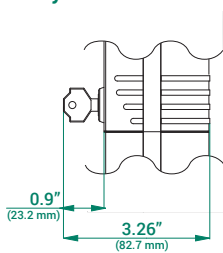
OVERALL DIMENSIONS



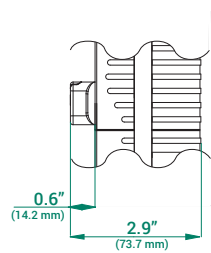
No. of actuators	Dimensions		
	A	B	C
4	7.9" (201 mm)	9" (229.8 mm)	10.1" (255.8 mm)
5	7.9" (201 mm)	9" (229.8 mm)	10.1" (255.8 mm)
6	10.3" (261 mm)	11.4" (289.8 mm)	12.4" (315.8 mm)
7	10.3" (261 mm)	11.4" (289.8 mm)	12.4" (315.8 mm)
8	12.6" (321 mm)	13.8" (349.8 mm)	14.8" (375.8 mm)
9	12.6" (321 mm)	13.8" (349.8 mm)	14.8" (375.8 mm)
12	17.4" (441 mm)	18.5" (469.8 mm)	19.5" (495.8 mm)
13	17.4" (441 mm)	18.5" (469.8 mm)	19.5" (495.8 mm)
14	19.7" (501 mm)	20.9" (529.8 mm)	21.9" (555.8 mm)
15	19.7" (501 mm)	20.9" (529.8 mm)	21.9" (555.8 mm)

Actuators

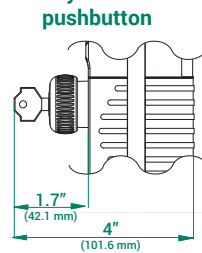
Key selector switches



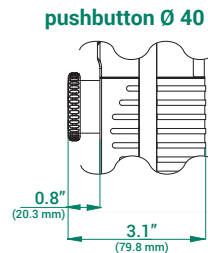
Selector switches



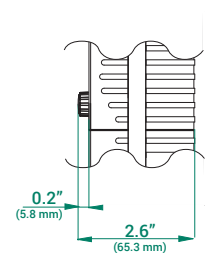
Key mushroom pushbutton



Mushroom pushbutton Ø 40 mm

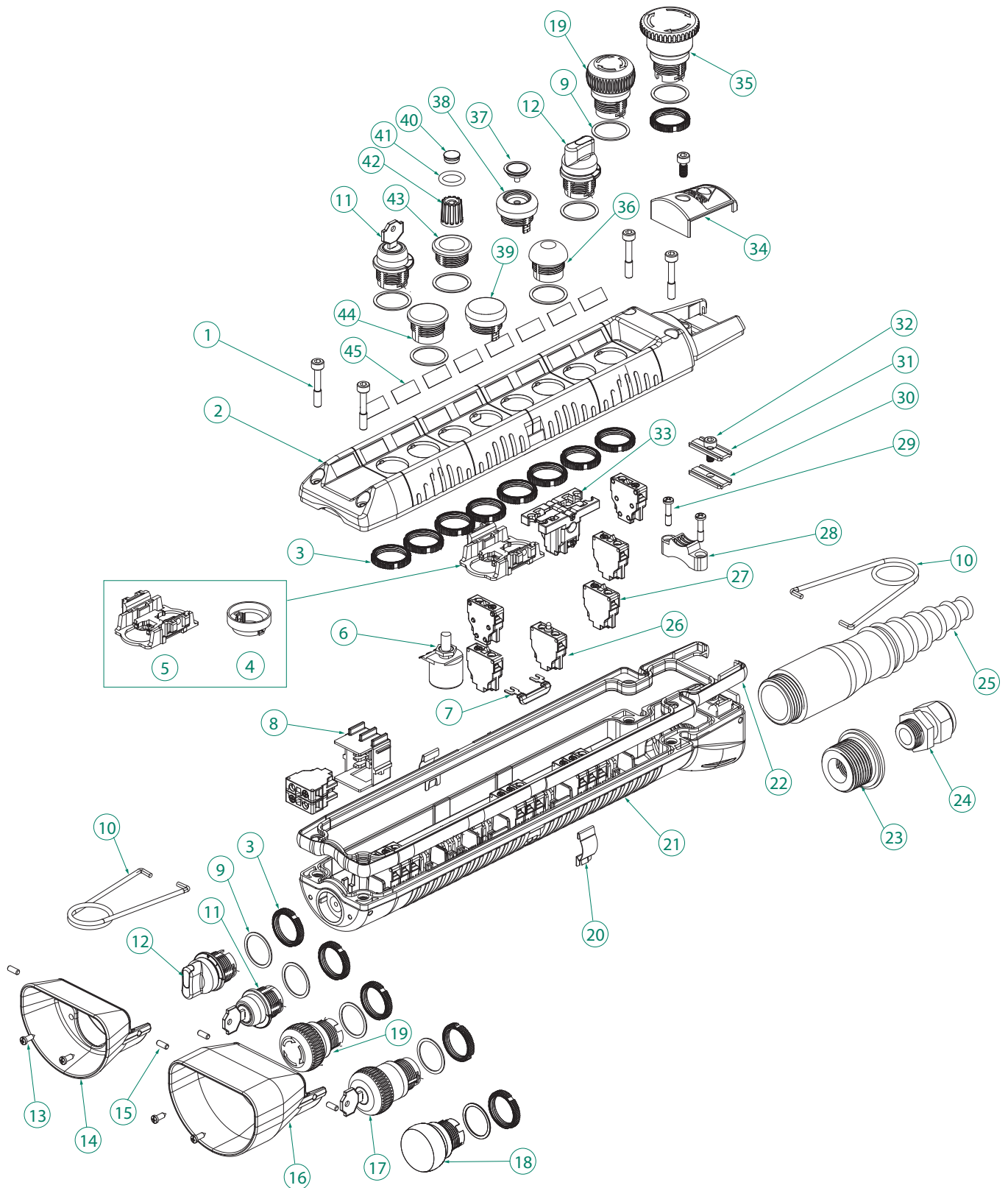


Potentiometer



Dimensions of all mushroom pushbuttons refer to the released position.

EXPLODED DRAWING



STANDARD CONTROL STATIONS

Standard control stations are supplied with symbol label sheet. Standard control stations are not cULus certified.

4 actuators



Reset-Alarm button	Latched mushroom pushbutton	Black buttons mechanically interlocked between pairs		Cover color	Code
No.2 PRSL1800PI 1NO+1NO	No.1 PRSL1801PI 1NC	No.1 PRSL1800PI 1NO	No.2 PRSL1800PI 1NO+1NO		
					
1	1	2		Yellow	F70AY12020000001
1	1	2		Black	F70AB12020000001
1	1		2	Yellow	F70AY12000200001
1	1		2	Black	F70AB12000200001

6 actuators



Reset-Alarm button	Latched mushroom pushbutton	Black buttons mechanically interlocked between pairs		Cover color	Code
No.2 PRSL1800PI 1NO+1NO	No.1 PRSL1801PI 1NC	No.1 PRSL1800PI 1NO	No.2 PRSL1800PI 1NO+1NO		
					
1	1	4		Yellow	F70EY12040000002
1	1	4		Black	F70EB12040000001
1	1		4	Yellow	F70EY12000400002
1	1		4	Black	F70EB12000400001

8 actuators



Reset-Alarm button	Latched mushroom pushbutton	Black buttons mechanically interlocked between pairs		Cover color	Code
No.2 PRSL1800PI 1NO+1NO	No.1 PRSL1801PI 1NC	No.1 PRSL1800PI 1NO	No.2 PRSL1800PI 1NO+1NO		
					
1	1	6		Yellow	F70BY12060000001
1	1	6		Black	F70BB12060000001
1	1		6	Yellow	F70BY12000600001
1	1		6	Black	F70BB12000600001

12 actuators



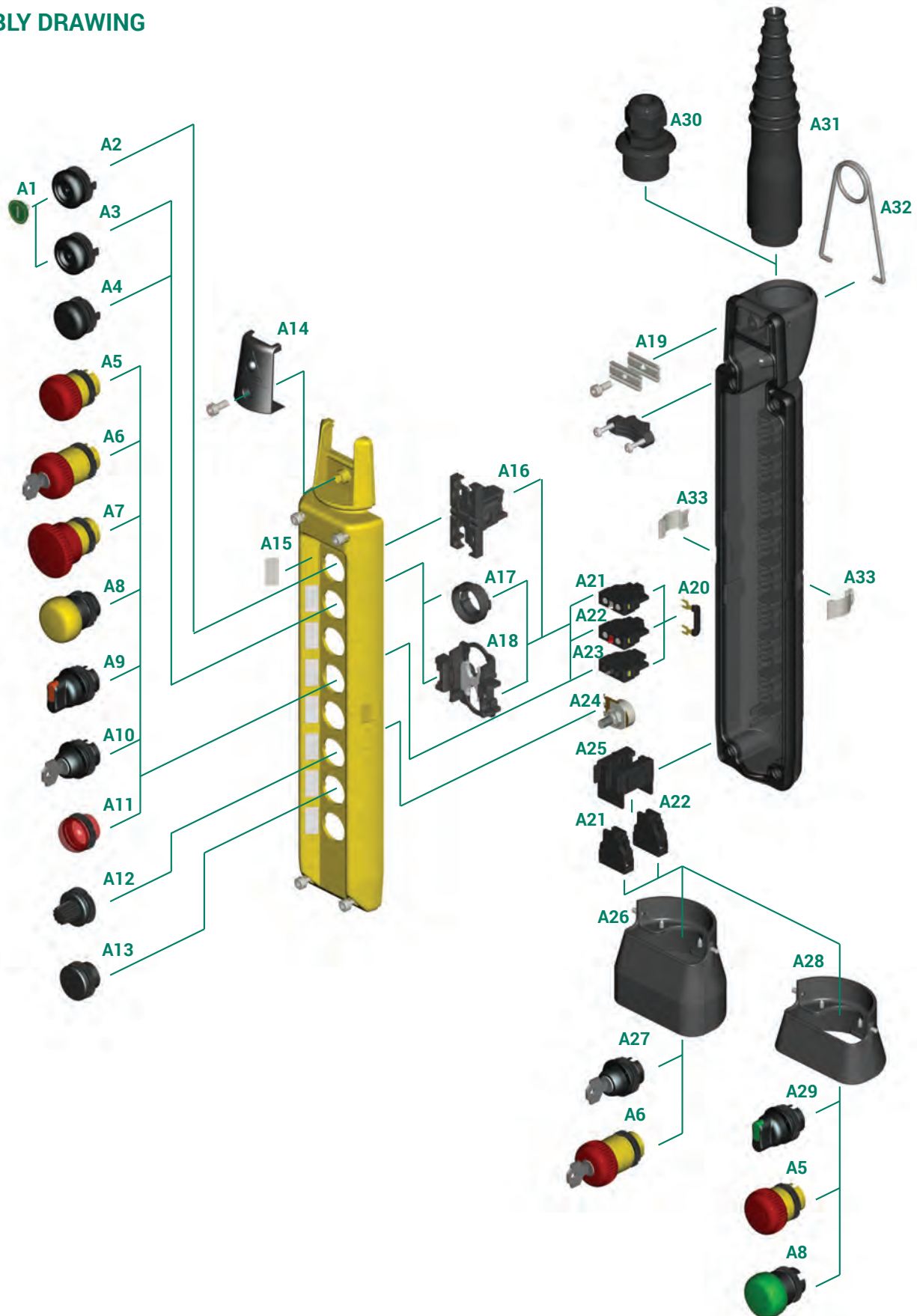
Reset-Alarm button	Latched mushroom pushbutton	Black buttons mechanically interlocked between pairs		Cover color	Code
No.2 PRSL1800PI 1NO+1NO	No.1 PRSL1801PI 1NC	No.1 PRSL1800PI 1NO	No.2 PRSL1800PI 1NO+1NO		
					
1	1	10		Yellow	F70CY12100000001
1	1	10		Black	F70CB12100000001
1	1		10	Yellow	F70CY12001000001
1	1		10	Black	F70CB12001000001

14 actuators



Reset-Alarm button	Latched mushroom pushbutton	Black buttons mechanically interlocked between pairs		Cover color	Code
No.2 PRSL1800PI 1NO+1NO	No.1 PRSL1801PI 1NC	No.1 PRSL1800PI 1NO	No.2 PRSL1800PI 1NO+1NO		
					
1	1	12		Yellow	F70DY12120000001
1	1	12		Black	F70DB12120000001
1	1		12	Yellow	F70DY12001200001
1	1		12	Black	F70DB12001200001

ASSEMBLY DRAWING



COMPONENTS

Switches

Ref.	Drawing	Description	Scheme	Code
A21		1NO switch		PRSL1800PI
A22		1NC switch		PRSL1801PI
A23		LED 24/48 Vac/dc		PRSL1820PI
		LED 110/230 Vac		PRSL1821PI

Potentiometers

Ref.	Drawing	Description	Code
A12 + A24		Potentiometer 4.7 kΩ	PRSL1891PI
		Potentiometer 10 kΩ	PRSL1892PI
		Potentiometer 1 kΩ	PRSL1893PI

Actuators

Ref.	Drawing	Description	Code
A1		Disk for pushbutton	PRTA_----- See disk table
A2		Pushbutton for latched ON-OFF maintained actuator	PRSL1803PI
A3		2 speed pushbutton	PRSL1810PI
		1 speed pushbutton	PRSL1811PI
		1 speed illuminated pushbutton	PRSL1815PI
		1 speed black pushbutton	PRSL1806PI
A4		1 speed grey pushbutton	PRSL1807PI
		2 speed black pushbutton	PRSL1808PI
		2 speed grey pushbutton	PRSL1809PI
A13		Blanking plug	PRSL1845PI
A16		Latched ON-OFF maintained actuator	PRSL1804PI

Pilot lights

Ref.	Drawing	Description	Code
A11		White	PRSL1844PI
		Green	PRSL1841PI
		Blue	PRSL1846PI
		Red	PRSL1840PI
		Yellow	PRSL1842PI
		Orange	PRSL1843PI

Mushroom pushbuttons

Ref.	Drawing	Description	Head color	Code
A5		Latched mushroom pushbutton for emergency stop	Red	PRSL1880PI
A6		Key mushroom pushbutton	Red	PRSL1890PI
A7		Latched mushroom pushbutton for emergency stop Ø 40 mm	Red	PRSL1881PI
A8		Impulse mushroom pushbutton Ø 33 mm with black base	Red	PRSL1885ROC
			Blue	PRSL1885BLC
			Yellow	PRSL1885GIC
			Green	PRSL1885VEC
			Orange	PRSL1885ARC
			Black	PRSL1885NEC

Key selector switches

Ref.	Drawing	Positions	Spring return	Maintained positions	Pull-out position	Code
A10 A27		0/1	X		0	PRSL1867PI
				X	0	PRSL1868PI
		1/0/2	X		0	PRSL1869PI
				X	0	PRSL1870PI
A10		0/1/1+2	X		0	PRSL1871PI
				X	0	PRSL1872PI
		1/2 change-over	X		1	PRSL1873PI
				X	1	PRSL1874PI
		1/1+2/2	X		1+2	PRSL1875PI
				X	1+2	PRSL1876PI

Selector switches

Ref.	Drawing	Positions	Color		Code
			Transparent	Full	
A9 A29		0/1 Spring return	White		PRSL1855BI
			Green		PRSL1855VE
			Blue		PRSL1855BL
			Red		PRSL1855RO
			Yellow		PRSL1855GI
			Orange		PRSL1855AR
		0/1 Maintained	White		PRSL1856BI
			Green		PRSL1856VE
			Blue		PRSL1856BL
			Red		PRSL1856RO
			Yellow		PRSL1856GI
			Orange		PRSL1856AR
		0/1 Spring return		White	PRSL1855BIC
				Green	PRSL1855VEC
				Blue	PRSL1855BLC
				Red	PRSL1855ROC
				Yellow	PRSL1855GIC
				Orange	PRSL1855ARC
		0/1 Maintained		White	PRSL1856BIC
				Green	PRSL1856VEC
				Blue	PRSL1856BLC
				Red	PRSL1856ROC
				Yellow	PRSL1856GIC
				Orange	PRSL1856ARC
A9		1/0/2 Spring return	White		PRSL1857BI
			Green		PRSL1857VE
			Blue		PRSL1857BL
			Red		PRSL1857RO
			Yellow		PRSL1857GI
			Orange		PRSL1857AR
		1/0/2 Maintained	White		PRSL1858BI
			Green		PRSL1858VE
			Blue		PRSL1858BL
			Red		PRSL1858RO
			Yellow		PRSL1858GI
			Orange		PRSL1858AR
		1/0/2 Spring return		White	PRSL1857BIC
				Green	PRSL1857VEC
				Blue	PRSL1857BLC
				Red	PRSL1857ROC
				Yellow	PRSL1857GIC
				Orange	PRSL1857ARC
		1/0/2 Maintained		White	PRSL1858BIC
				Green	PRSL1858VEC
				Blue	PRSL1858BLC
				Red	PRSL1858ROC
				Yellow	PRSL1858GIC
				Orange	PRSL1858ARC



Selector switches

Ref.	Drawing	Positions	Color		Code
			Transparent	Full	
A9		1/1+2/2 Spring return	White		PRSL1863BI
			Green		PRSL1863VE
			Blue		PRSL1863BL
			Red		PRSL1863RO
			Yellow		PRSL1863GI
			Orange		PRSL1863AR
		1/1+2/2 Maintained	White		PRSL1864BI
			Green		PRSL1864VE
			Blue		PRSL1864BL
			Red		PRSL1864RO
			Yellow		PRSL1864GI
			Orange		PRSL1864AR
		1/1+2/2 Spring return		White	PRSL1863BIC
				Green	PRSL1863VEC
				Blue	PRSL1863BLC
				Red	PRSL1863ROC
				Yellow	PRSL1863GIC
				Orange	PRSL1863ARC
		1/1+2/2 Maintained		White	PRSL1864BIC
				Green	PRSL1864VEC
				Blue	PRSL1864BLC
				Red	PRSL1864ROC
				Yellow	PRSL1864GIC
				Orange	PRSL1864ARC
		0/1/1+2 Spring return	White		PRSL1859BI
			Green		PRSL1859VE
			Blue		PRSL1859BL
			Red		PRSL1859RO
			Yellow		PRSL1859GI
			Orange		PRSL1859AR
		0/1/1+2 Maintained	White		PRSL1860BI
			Green		PRSL1860VE
			Blue		PRSL1860BL
			Red		PRSL1860RO
			Yellow		PRSL1860GI
			Orange		PRSL1860AR
		0/1/1+2 Spring return		White	PRSL1859BIC
				Green	PRSL1859VEC
				Blue	PRSL1859BLC
				Red	PRSL1859ROC
				Yellow	PRSL1859GIC
				Orange	PRSL1859ARC
		0/1/1+2 Maintained		White	PRSL1860BIC
				Green	PRSL1860VEC
				Blue	PRSL1860BLC
				Red	PRSL1860ROC
				Yellow	PRSL1860GIC
				Orange	PRSL1860ARC

Selector switches

Ref.	Drawing	Positions	Color		Code
			Transparent	Full	
A9		1/2 Spring return	White		PRSL1861BI
			Green		PRSL1861VE
			Blue		PRSL1861BL
			Red		PRSL1861RO
			Yellow		PRSL1861GI
		1/2 Maintained	Orange		PRSL1861AR
			White		PRSL1862BI
			Green		PRSL1862VE
			Blue		PRSL1862BL
			Red		PRSL1862RO
			Yellow		PRSL1862GI
			Orange		PRSL1862AR
		1/2 Spring return		White	PRSL1861BIC
				Green	PRSL1861VEC
				Blue	PRSL1861BLC
				Red	PRSL1861ROC
				Yellow	PRSL1861GIC
		1/2 Maintained		Orange	PRSL1861ARC
				White	PRSL1862BIC
				Green	PRSL1862VEC
				Blue	PRSL1862BLC
				Red	PRSL1862ROC
				Yellow	PRSL1862GIC
				Orange	PRSL1862ARC

Accessories

Ref.	Drawing	Description	Code
A14		Cable cover with TER logo	PRSL1832PI
		Blank cable cover	PRSL1836PI
A15		Label sheet - Symbols	PRET0215PE
		Label sheet - German	PRET0220DE
		Label sheet - English	PRET0220EN
		Label sheet - Spanish	PRET0220ES
		Label sheet - French	PRET0220FR
		Label sheet - Italian	PRET0220IT
A17		Button-switch spacer	PRSL8512PI
A18		Mechanical interlock	PRSL1850PI
A19		Complete wire clamp	PRSL1896PI
A20		Insulated connecting bridge - positions 3-4 (bag with 5 pieces)	PRSL1911PI
		Insulated connecting bridge - positions 2-4 (bag with 5 pieces)	PRSL1912PI
		Insulated connecting bridge - positions 1-4 (bag with 5 pieces)	PRSL1913PI
		Insulated connecting bridge - positions 1-3 (bag with 5 pieces)	PRSL1914PI
		Insulated connecting bridge - positions 1-2 (bag with 5 pieces)	PRSL1915PI
		Insulated connecting bridge - positions 1-2-3 (bag with 5 pieces)	PRSL1916PI
A25		1-2-3 switch holder	PRSL8750PI

Accessories

Ref.	Drawing	Description	Code
A26		Large protection	PRSL1831PI
A28		Small protection	PRSL1830PI
A30		Cable clamp M20 with reduction	PRSL1910PI
A31		Cable sleeve	PRSL0145PE
A32		Hook	PRGA0012PE
A33		Closing clip	PRTR1035PE

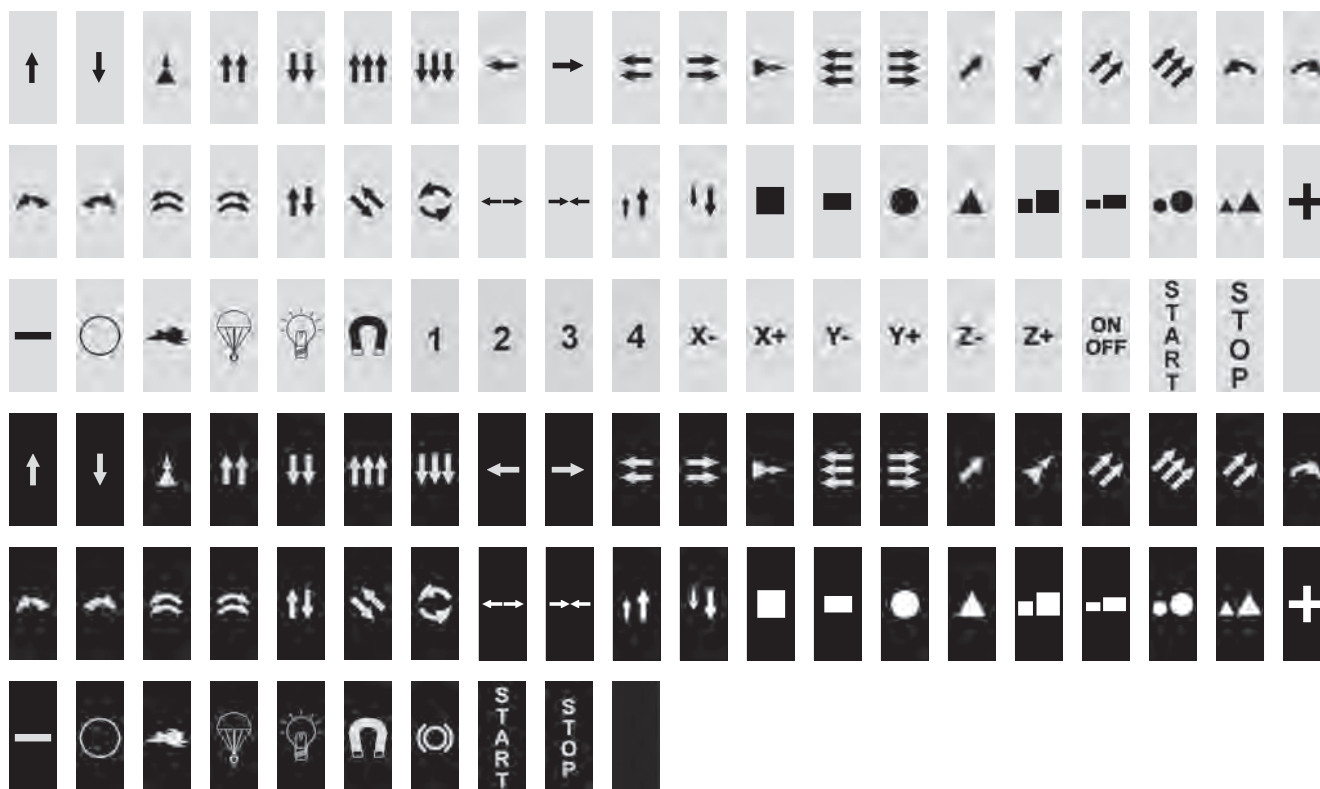
Full color disks



Transparent disks



Label sheet - Symbols



Label sheet - English

START	ALARM	RESET ALARM	RESET	STOP	LIGHT	RESET LINE	STOP LINE	START BUCKET	STOP BUCKET
BRAKE	BACK	UP	DOWN	UP LIFTING	DOWN LIFTING	UP LIFTING 1-2 SPEED	DOWN LIFTING 1-2 SPEED	UP LIFTING 3RD SPEED	DOWN LIFTING 3RD SPEED
UP LIFTING FAST	DOWN LIFTING FAST	LIFTING 2ND SPEED	LIFTING 3RDSPEED	UP AUXIL. LIFTING	DOWN AUXIL LIFTING	UP MAIN LIFTING	DOWN MAIN LIFTING	UP FAST MAIN LIFTING	DOWN FAST MAIN LIFTING
UP AUXIL. LIFTING 1-2 S.	DOWN AUXIL. LIFTING 1-2 S.	UP MAIN LIFTING 1-2 S.	DOWN MAIN LIFTING 1-2 S.	UP WINCH	DOWN WINCH	UP WINCH 1-2 SPEED	DOWN WINCH 1-2 SPEED	UP FAST WINCH	DOWN FAST WINCH
UP SLOW RIGHT WINCH	DOWN SLOW RIGHT WINCH	UP FAST RIGHT WINCH	DOWN FAST RIGHT WINCH	UP SLOW LEFT WINCH	UP FAST LEFT WINCH	DOWN FAST LEFT WINCH	UP HOIST	DOWN HOIST	UP HOIST 1-2 SPEED
DOWN HOIST 1-2 SPEED	UP FAST HOIST	DOWN FAST HOIST	FORWARD	BACKWARD	FORWARD TROLLEY	BACKWARD TROLLEY	FORWARD FAST TROLLEY	BACKWARD FAST TROLLEY	FORWARD TROLLEY 1-2 S.
BACKWARD TROLLEY 1-2 S.	FORWARD BRIDGE	BACKWARD BRIDGE	FORWARD FAST BRIDGE	BACKWARD FAST BRIDGE	FORWARD BRIDGE 1-2 S.	BACKWARD BRIDGE 1-2 S.	FORWARD TRANSLATION	BACKWARD TRANSLATION	LEFT
RIGHT	LEFT TROLLEY	RIGHT TROLLEY	LEFT FAST TROLLEY	RIGHT FAST TROLLEY	LEFT TROLLEY 1-2 S.	RIGHT TROLLEY 1-2 S.	LEFT BRIDGE	RIGHT BRIDGE	LEFT FAST BRIDGE
DOWN SLOW LEFT WINCH	RIGHT FAST BRIDGE	LEFT BRIDGE 1-2 S.	RIGHT BRIDGE 1-2 S.	CCW ROTATION	CW ROTATION	CCW FAST ROTATION	CW FAST ROTATION	CCW ROTATION 1-2 S.	CW ROTATION 1-2 S.
CCW ROTATION 3RD SPEED	CW ROTATION 3RD SPEED	LEFT CTRL STATION	RIGHT CTRL STATION	TROLLEY LEFT	TROLLEY RIGHT	SLOW	FAST	FAST TROLLEY	FAST BRIDGE
FAST LIFTING	FAST ROTATION	WINCH MATCHING	OPEN	CLOSE	OPEN GRAPPLE	CLOSE GRAPPLE	OPEN BUCKET	CLOSE BUCKET	OPEN DOOR
CLOSE DOOR	SPEED UP	SPEED DOWN	RAISE	LOWER	LOAD	DOWNLOAD	ENERGIZE	DE-ENERGIZE	ENERGIZE MAGNET
DE-ENERGIZE MAGNET	APPROACH	CONSENT	AUTOMATIC	MANUAL	MAN-0-AUTO	OFF-MAN-AUTO	ON	OFF	ON-OFF
IN	OUT	NORTH	SOUTH	EAST	WEST	OVERLOAD	TARE	1-1+2-2	1-2-1+2
1+2	ON-OFF	A-A+B-B							



Label sheet - Spanish

MARCHA	ALARMA	MARCHA ALARMA	PARO	STOP	LUZ	MARCHA LINEA	PARO LINEA	MARCHA PALA	PARO PALA
FRENO	RETORNO	SUBIR	BAJAR	SUBIR ELEVACION	BAJAR ELEVACION	SUBIR ELEV. 1-2 VEL.	BAJAR ELEV. 1-2 VEL.	SUBIR ELEV. 3ª VEL.	BAJAR ELEV. 3ª VEL.
SUBIR ELEV. RAPIDA	BAJAR ELEV. RAPIDA	2ª VEL. ELEVACION	3ª VEL. ELEVACION	SUBIR AUX. ELEVACION	BAJAR AUX. ELEVACION	SUBIR ELEV. PRINCIPAL	BAJAR ELEV. PRINCIPAL	SUBIR ELEV. PRINC. RAPIDA	BAJAR ELEV. PRINC. RAPIDA
SUBIR AUX. 1-2 VEL.	BAJAR AUX. 1-2 VEL.	SUBIR PRINC. 1-2 VEL.	BAJAR PRINC. 1-2 VEL.	SUBIR POLIPASTO	BAJAR POLIPASTO	SUBIR POLIP. 1-2 VEL.	BAJAR POLIP. 1-2 VEL.	SUBIR POLIP. RAPIDO	BAJAR POLIP. RAPIDO
POLIP. DER. SUBIR LENTO	POLIP. DER. BAJAR LENTO	POLIP. DER. SUBIR RAPIDO	POLIP. DER. BAJAR RAPIDO	POLIP. IZQ. SUBIR LENTO	POLIP. IZQ. SUBIR RAPIDO	POLIP. IZQ. BAJAR RAPIDO	SUBIR GANCHO	BAJAR GANCHO	SUBIR GANCHO 1-2 VEL.
BAJAR GANCHO 1-2 VEL.	SUBIR GANCHO RAPIDO	BAJAR GANCHO RAPIDO	ADELANTE	ATRAS	ADELANTE CARRITO	ATRAS CARRITO	ADELANTE CARR. RAPIDO	ATRAS CARR. RAPIDO	ADELANTE CARR. 1-2 VEL.
ATRAS CARR. 1-2 VEL.	ADELANTE PUENTE	ATRAS PUENTE	ADELANTE PUENTE RAPIDO	ATRAS PUENTE RAPIDO	ADELANTE PUENTE 1-2 VEL.	ATRAS PUENTE 1-2 VEL.	ADELANTE TRASLACION	ATRAS TRASLACION	IZQUIERDA
DERECHA	IZQUIERDA CARRITO	DERECHA CARRITO	IZQUIERDA CARR. RAPIDO	DERECHA CARR. RAPIDO	IZQUIERDA CARR. 1-2 VEL.	DERECHA CARR. 1-2 VEL.	IZQUIERDA PUENTE	DERECHA PUENTE	IZQUIERDA PUENTE RAPIDO
POLIP. IZQUIER. BAJAR LENTO	DERECHA PUENTE RAPIDO	IZQUIERDA PUENTE 1-2 VEL.	DERECHA PUENTE 1-2VEL.	IZQUIERDA ROTACION	DERECHA ROTACION	IZQUIERDA ROT. RAPIDA	DERECHA ROT. RAPIDA	IZQUIERDA ROT. 1-2 VEL.	DERECHA ROT. 1-2 VEL.
IZQUIERDA ROT. 3ª VEL.	DERECHA ROT. 3ª VEL.	BOTONERA IZQUIERDA	BOTONERA DERECHA	CARRITO IZQUIERDO	CARRITO DERECHO	LENTO	RAPIDO	CARRITO RAPIDO	PUENTE RAPIDO
ELEVACION RAPIDA	ROTACION RAPIDA	ACOPLAMIENTO POLIPASTO	ABRIR	CERRAR	ABRIR PINZA	CERRAR PINZA	ABRIR PALA	CERRAR PALA	ABRIR PUERTA
CERRAR PUERTA	ACELERAR	DESACELERAR	ELEVAR	DESCENDER	CARGAR	DESCARGAR	IMANTAR	DESIMANTAR	IMANTAR MAGNETO
DESIMANTAR MAGNETO	ACERCAR	CONFIRMAR	AUTOMATICO	MANUAL	MAN-0-AUTO	OFF-MAN-AUTO	ON	OFF	ON-OFF
IN	OUT	NORTE	SUR	ESTE	OESTE	SOBRECARGA	TARA	1-1+2-2	1-2-1+2
1+2	ON-OFF	A-A+B-B							

Label sheet - French

MARCHE	ALARME	MARCHE ALARME	RESET	ARRET	LUMIERE	MARCHE LIGNE	ARRET LIGNE	MARCHE BENNE	ARRET BENNE
FREIN	RETOUR	MONTEE	DESCENTE	MONTEE LEVAGE	DESCENTE LEVAGE	MONTEE LEV. 1-2 VIT.	DESCENTE LEV. 1-2 VIT.	MONTEE LEV. 3EME VIT.	DESCENTE LEV. 3EME VIT.
MONTEE LEV. VITE	DESCENTE LEV. VITE	MONTEE LEV. 2EME VIT.	DESCENTE LEV. 3EME VIT.	MONTEE LEV. AUXILIAIRE	DESCENTE LEV. AUXILIAIRE	MONTEE LEV. PRINCIPAL	DESCENTE LEV. PRINCIPAL	MONTEE LEV. PRINC. VITE	DESCENTE LEV. PRINC. VITE
MONTEE LEV. AUX. 1-2 VIT.	DESCENTE LEV. AUX. 1-2 VIT.	MONTEE LEV. PRINC. 1-2 VIT.	DESCENTE LEV. PRINC. 1-2 VIT.	MONTEE TREUIL	DESCENTE TREUIL	MONTEE TREUIL 1-2 VIT.	DESCENTE TREUIL 1-2 VIT.	MONTEE TREUIL VITE	DESCENTE TREUIL VITE
TREUIL DROITE MONTEE LENTE	TREUIL DROITE DESC. LENTE	TREUIL DROITE MONTEE VITE	TREUIL DROITE DESCENTE VITE	TREUIL AUICHE MONTEE LENTE	TREUIL AUICHE MONTEE VITE	TREUIL AUICHE DESCENTE VITE	MONTEE PALAN	DESCENTE PALAN	MONTEE PALAN 1-2 VIT.
DESC. PALAN 1-2 VIT.	MONTEE PALAN VITE	DESCENTE PALAN VITE	AVANT	ARRIERE	AVANT CHARIOT	ARRIERE CHARIOT	AVANT CHARIOT VITE	ARRIERE CHARIOT VITE	AVANT CHARIOT 1-2 VIT.
ARR. CHARIOT 1-2 VIT.	AVANT PONT	ARRIERE PONT	AVANT PONT VITE	ARRIERE PONT VITE	AVANT PONT 1-2 VIT.	ARRIERE PONT 1-2 VIT.	AVANT TRANSLATION	ARRIERE TRANSLATION	GAUCHE
DROITE	GAUCHE CHARIOT	DROITE CHARIOT	GAUCHE CHARIOT VITE	DROITE CHARIOT VITE	GAUCHE CHARIOT 1-2 VIT.	DROITE CHARIOT 1-2 VIT.	GAUCHE PONT	DROITE PONT	GAUCHE PONT VITE
TREUIL GAUCHE DESC. LENTE	DROITE PONT VITE	GAUCHE PONT 1-2 VIT.	DROITE PONT 1-2 VIT.	GAUCHE ROTATION	DROITE ROTATION	GAUCHE ROTATION VITE	DROITE ROTATION VITE	GAUCHE ROT. 1-2 VIT.	DROITE ROT. 1-2 VIT.
GAUCHE ROT. 3EME VIT.	DROITE ROT. 3EME VIT.	GAUCHE BOITE A BOUTONS	DROITE BOITE A BOUTONS	CHARIOT GAUCHE	CHARIOT DROITE	LENT	VITE	VITE CHARIOT	VITE PONT
VITE LEVAGE	VITE ROTATION	ACCOUPLEMT. TREUIL	OUVRE	FERME	OUVRE PINCE	FERME PINCE	OUVRE BENNE	FERME BENNE	OUVRE PORTAIL
FERME PORTAIL	ACCELERATION	DECELERATION	HISSE	ABAISSER	CHARGE	DECHARGE	EXCITER	DESEXCITER	MAGNETISE
DEMAGNETISE	APPROCHE	CONSETEMENT	AUTOMATIQUE	MANUEL	MAN-0-AUTO	OFF-MAN-AUTO	ON	OFF	ON-OFF
IN	OUT	NORD	SUD	EST	OUEST	SURCHARGE	TARE	1-1+2-2	1-2-1+2
1+2	ON-OFF	A-A+B-B							

1 Legend - Control elements

* SWITCH ACTIVATION

It is possible to mount up to 3 switches for each control element. The chart on the right of each pushbutton or selector switch specifies which position activates the switch on the top, in the middle or on the bottom. If the selector switches are mounted with the lever facing downwards, then the activation of the switches is reversed. Eg.: 2 speed pushbutton: the first speed activates the switches on the top and in the middle, while the second speed activates the switch on the bottom.

Pushbuttons

It is possible to mount up to three switches for each button. LEDs can be mounted only in the middle.

		SWITCH ACTIVATION*
1	1 speed pushbutton with disk	☐ speed 1
25	1 speed black pushbutton	☐ speed 1
26	1 speed grey pushbutton	☐ speed 1
2	2 speed pushbutton with disk	☐ speed 1 ☐ speed 2
27	2 speed black pushbutton	☐ speed 1 ☐ speed 2
28	2 speed grey pushbutton	☐ speed 1 ☐ speed 2
3	1 speed illuminated pushbutton with disk	☐ speed 1 ☐ LED ☐ speed 1

Mushroom pushbuttons

All mushroom pushbuttons activate all the switches at the same time.

- 4 Latched mushroom pushbutton for emergency stop
- 5 Latched mushroom pushbutton for emergency stop Ø 40 mm
- 6 Key mushroom pushbutton
- 7 Impulse mushroom pushbutton Ø 33 mm with black base

11 Pilot light

12 Blanking plug

Toggle selector switches

It is possible to mount only two switches for each selector. In the middle it is possible to mount only the LED for illuminated selector switches.

		SWITCH ACTIVATION*
15	0/1 spring return	☐ pos 1 ☐ pos 1
16	0/1 maintained positions	☐ pos 1 ☐ pos 1
17	1/0/2 spring return	☐ pos 1 ☐ pos 2
18	1/0/2 maintained positions	☐ pos 1 ☐ pos 2
19	1/1+2/2 spring return	☐ pos 1 and 1+2 ☐ pos 2 and 1+2
20	1/1+2/2 maintained positions	☐ pos 1 and 1+2 ☐ pos 2 and 1+2
21	0/1/1+2 spring return	☐ pos 1+2 ☐ pos 1 and 1+2
22	0/1/1+2 maintained positions	☐ pos 1+2 ☐ pos 1 and 1+2
23	1/2 spring return	☐ pos 1 ☐ pos 2
24	1/2 maintained positions	☐ pos 1 ☐ pos 2

Key selector switches

It is possible to mount only two switches for each selector, and no switch/LED in the central position.

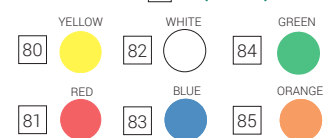
		SWITCH ACTIVATION*
30	0/1 spring return key out in position 0	☐ pos 1 ☐ NA pos 1
31	0/1 maintained positions key out in position 0	☐ pos 1 ☐ NA pos 1
32	1/0/2 spring return key out in position 0	☐ pos 1 ☐ NA pos 2
33	1/0/2 maintained positions key out in position 0	☐ pos 1 ☐ NA pos 2
34	0/1/1+2 spring return key out in position 0	☐ pos 1+2 ☐ NA pos 1 and 1+2
35	0/1/1+2 maintained positions key out in position 0	☐ pos 1+2 ☐ NA pos 1 and 1+2
36	1/2 change over spring return key out in position 1	☐ pos 1 ☐ NA pos 2
37	1/2 change over maintained positions key out in position 1	☐ pos 1 ☐ NA pos 2
38	1/1+2/2 spring return key out in position 1+2	☐ pos 1 and 1+2 ☐ NA pos 2 and 1+2
39	1/1+2/2 maintained positions key out in position 1+2	☐ pos 1 and 1+2 ☐ NA pos 2 and 1+2

2 Legend - Button disks

Full color and symbol disks for pushbuttons (ref. 1 and 2)



Transparent disks for illuminated buttons (ref. 3)



3 Legend - Color of selectors, mushrooms, pilot lights

Non-illuminated toggle selector switches (ref. 15 to 24)

RP	Red	BP	Blue	AP	Orange
GP	Yellow	VP	Green	WP	White

Illuminated toggle selector switches (ref. 15 to 24)

RI	Red	BI	Blue	AI	Orange
GI	Yellow	VI	Green	WI	White

Impulse mushroom pushbutton with black base (ref. 7)

R	Red	B	Blue	A	Orange
G	Yellow	V	Green	N	Black

Pilot lights (ref. 11)

R	Red	B	Blue	A	Orange
G	Yellow	V	Green	W	White

5 Legend - Switches, LEDs, potentiometers

- 90 PRSL1800PI - 1NO switch
- 91 PRSL1801PI - 1NC switch
- 92 PRSL1820PI LED 24/48 Vac/dc
- 93 PRSL1821PI LED 110/230 Vac
- 94 PRSL1891PI potentiometer 4.7 kΩ
- 95 PRSL1892PI potentiometer 10 kΩ
- 96 PRSL1893PI potentiometer 1 kΩ

USE AND MAINTENANCE INSTRUCTIONS

Mike 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 -40°C to +80°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.

Do not connect more than one phase to each switch. Do not oil or grease the control elements or the switches.

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.

Steps for the proper installation of the pendant station

- Open the pendant station.
- Screw the variable section rubber cable sleeve (6) onto the enclosure (14).
- Cut the cable sleeve (6) and insert the multi-pole cable tight enough to guarantee protection against water and/or dust.
- Strip the cable to a length suitable for wiring the switches/LED (10).
- Tape the stripped part of the cable.
- Fix the multi-pole cable inside the pendant station using the variable section cable clamp (9) (supplied together with the fixing screws (8), inside the "Accessories bag").
- Tighten the cable tie (15) (inside the "Accessories bag") under the chosen measure ring on the cable sleeve (6).
- Connect all the switches/LED (10) according to the wiring layout printed on the switches /LED and overleaf (tighten the wires into the terminals with a torque equal to 0.5 Nm; (UL (c)UL: use 60°C or 75°C copper (CU) conductors and stiff or flexible wire 14-22 AWG); insertability of wires into the terminals 2x0.5mm² 2x1.5 mm² 1x2.5 mm²).
- Close the pendant station checking the proper positioning of the tightening gasket (13), making sure the gasket fits well into the cover and the enclosure seats.

ATTENTION: make sure no cable is in between the switches/LED (10) and the actuators (16) mounted on the upper cover (11). Fix the closing clips (12), if provided and depending on the assembly. Tighten the fixing screws (3) on the cover with a torque of 250 cNm.

- Screw the clamping plates (4, 5) into their seat on the enclosure (14).
- Fasten the holding wires, used to support the multi-pole cable, to the clamping plates (4, 5). ATTENTION: make sure the holding wires are as close as possible to the screw. After positioning the holding wires, tighten the screw.
- Position the wire cover (2) and tighten the screw (1) with a torque of 250 cNm. Insert the hook (7) into its seats on the enclosure (14).
- In order to open the control station, loosen the screws on the cover (3), remove the clips (12), if provided, loosen the screw (1) and remove the wire cover (2), and loosen the clamping plate (4).

ATTENTION: Do not operate on the pushbuttons when the control station is not perfectly closed (with screws tightened and clips fitted as described in point 9) as this may cause the release of the mechanical interlock. If this happens, re-position the mechanical interlock before closing the control station.

Periodic maintenance steps

- Check the proper tightening of the screws (3) of the enclosure (11, 14).
- Check the proper tightening of the switch/LED (10) terminal screws.
- Check the wiring conditions (in particular where wires clamp into the switches).
- Check the conditions of the tightening gasket (13), of the rubber of the actuators (16) and of the cable sleeve (6).
- Check that the plastic enclosure (11, 14) of the pendant station is not broken.
- Check the proper assembling of the clips (12), if provided.

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.

UL Specifications

UL Technical Specifications

UL certified Mike Code = F80XXXXXXXXXXXXX

Category = NKCR / NKCR7

Switch Rating = A600, Q600

LED PRSL1821PI Rating = 110 – 240Vac, 1.15 – 2.50 mA

LED PRSL1820PI Rating = 24 – 48 Vdc/ac, 1.30 – 2.70 mA

Environmental Rating (Mike black) = Type 1, 4 and 4X

Environmental Rating (Mike yellow) = Type 1, 4 and 4X indoor use only

Cord diameter range = from 0.31 in (8mm) to 0.91 in (23mm)

Cord type = flexible, type minimum SW or SJW (ZJCZ/7)

Wire size range = 14-22 AWG stranded or solid

Conductors = Copper (CU) 60/75°C

Terminal tightening torque = 4.50 lb.in (0.5Nm)

Marking = 

Protection PRSL1830PI, PRSL1831PI

When the pilot light / selector switch / key selector switch / impulse mushroom pushbutton / mushroom push-button / emergency mushroom push-button / emergency key mushroom push-button / actuator is mounted on the bottom of the enclosed pendant control stations, the large protection PRSL1831PI or small protection PRSL1830PI shall be used.

Emergency Stop Button

Category = NISD3

Code = PRSL1880PI, PRSL1881PI

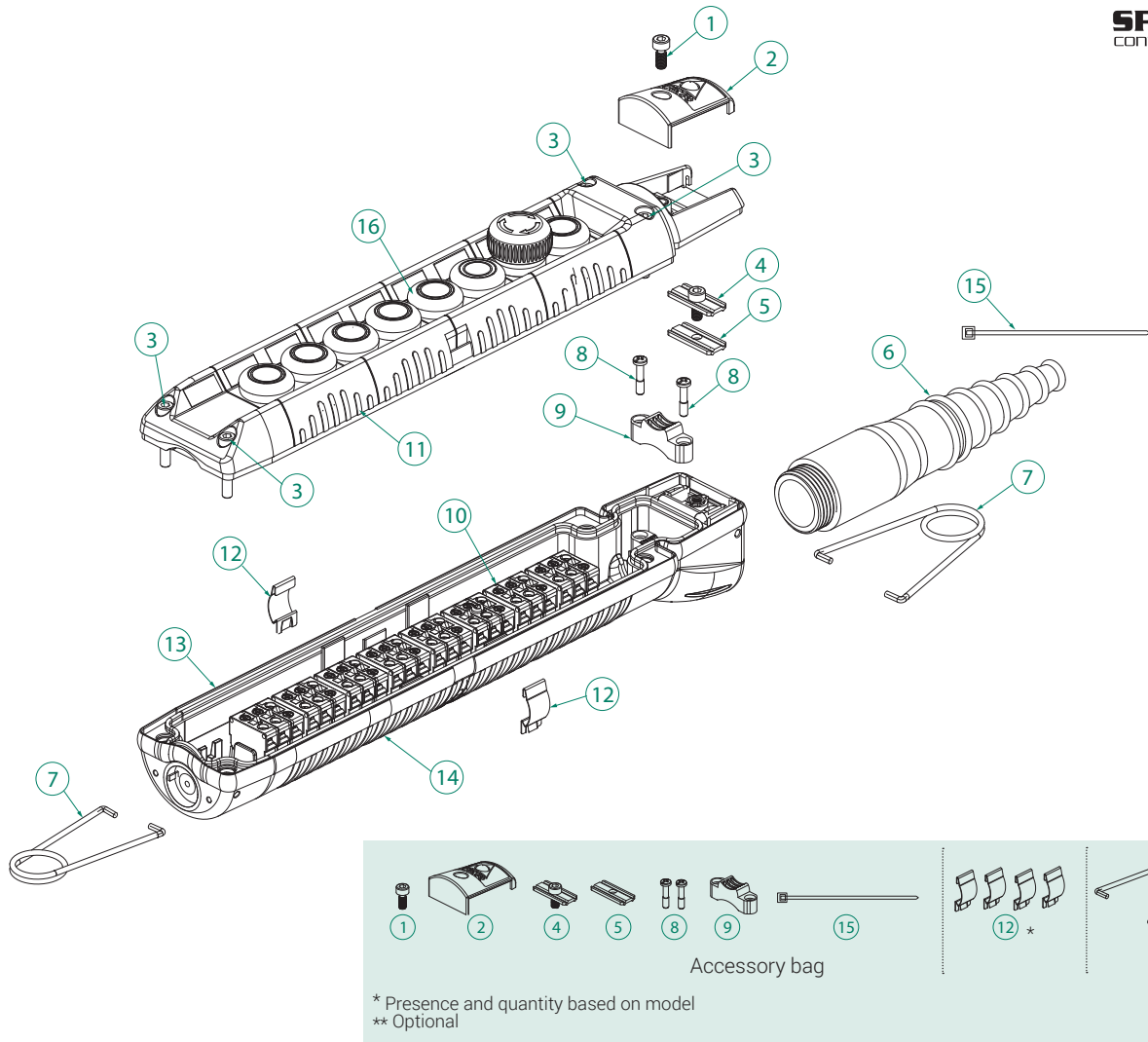
Switch = PRSL1801PI (A600, Q600)

Optional Switch = PRSL1800PI (A600, Q600)

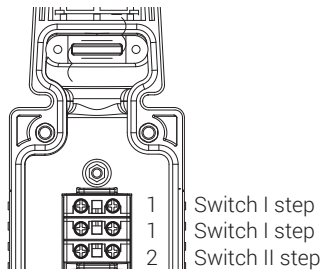
Code = PRSL1890PI

Switch = PRSL1801PI (A600, Q600)

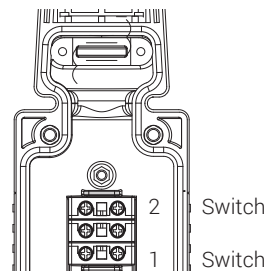
These unlisted components "emergency stop buttons" are intended for use within TECNO ELETTRICA RAVASI S.R.L. Listed (NKCR) Mike and Victor pushbutton stations.



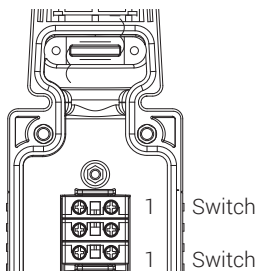
Switch activation



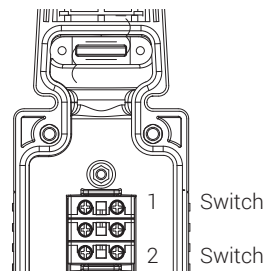
Pushbutton 2 steps



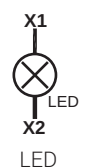
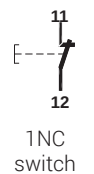
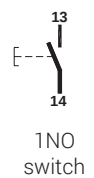
Selector 0/1/1+2



Selector 0/1

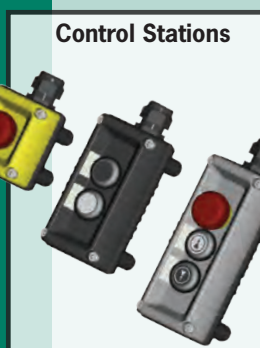


Selector 1/0/2
Selector 1/1+2/2
Selector 1/2





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96074 Chester Road --- Yulee, Florida, 32097
Phone: (904) 225-0575 --- Fax: (904) 225-9084