

# PA Pendant Control Station



The PA pendant station is a control device for all industrial machinery. It operates as an auxiliary controller of electrical motors through a power interface, such as a contactor or PLC. Designed for heavy duty, PA is aimed specifically for the industrial market.

Both thermoplastic rectangular buttons and round disks are available, the latter mounted on rubber pushbuttons to guarantee protection against dust which may cause the pushbuttons to stick when the equipment is used under particular environmental conditions. Buttons and discs comprise of a moulded two-colour arrangement offering a combination of clear reading of symbols and text with maximum wear resistance.

Materials and components are wear resistant and protect the equipment against water and dust. The pendant station can be customised with labels and colours according to the customer's requirements.

By turning the cable sleeve on the central part axis, the pendant station is kept at an angle of inclination of 20° which allows the best view of all control elements, allowing the operator to work in a natural and non-tiring position.

One, two or three speed switches are available. The emergency stop mushroom pushbutton complies with the EN 418 standard and is equipped with positive opening nc switches.

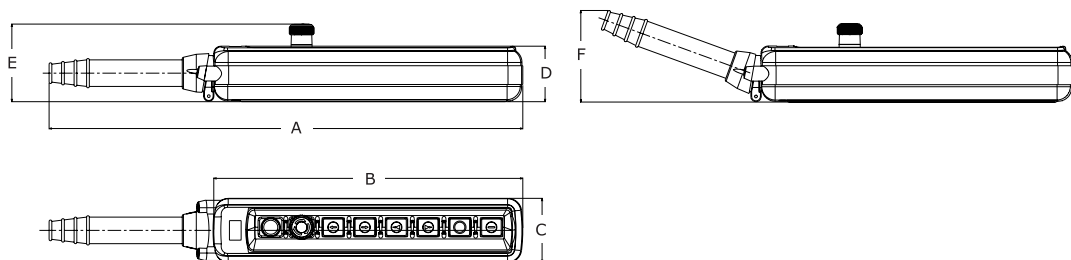
## Technical Specifications

Conformity to Community Directives	73/23/CEE 93/68/CEE
Conformity to Standards	EN 60204-1 EN 60947-1 EN60947-5-1 EN 60529 EN 418 EN 50013 IEC 536
Ambient temperature	Storage -40°C/+70°C Operational -25°C/+70°C
Protection degree	IP 65
Insulation category	Class II
Cable entry	2÷6 buttons: rubber cable sleeve Ø 10÷18 mm 8÷12 buttons: rubber cable sleeve Ø 17÷26 mm
Operating positions	Any position

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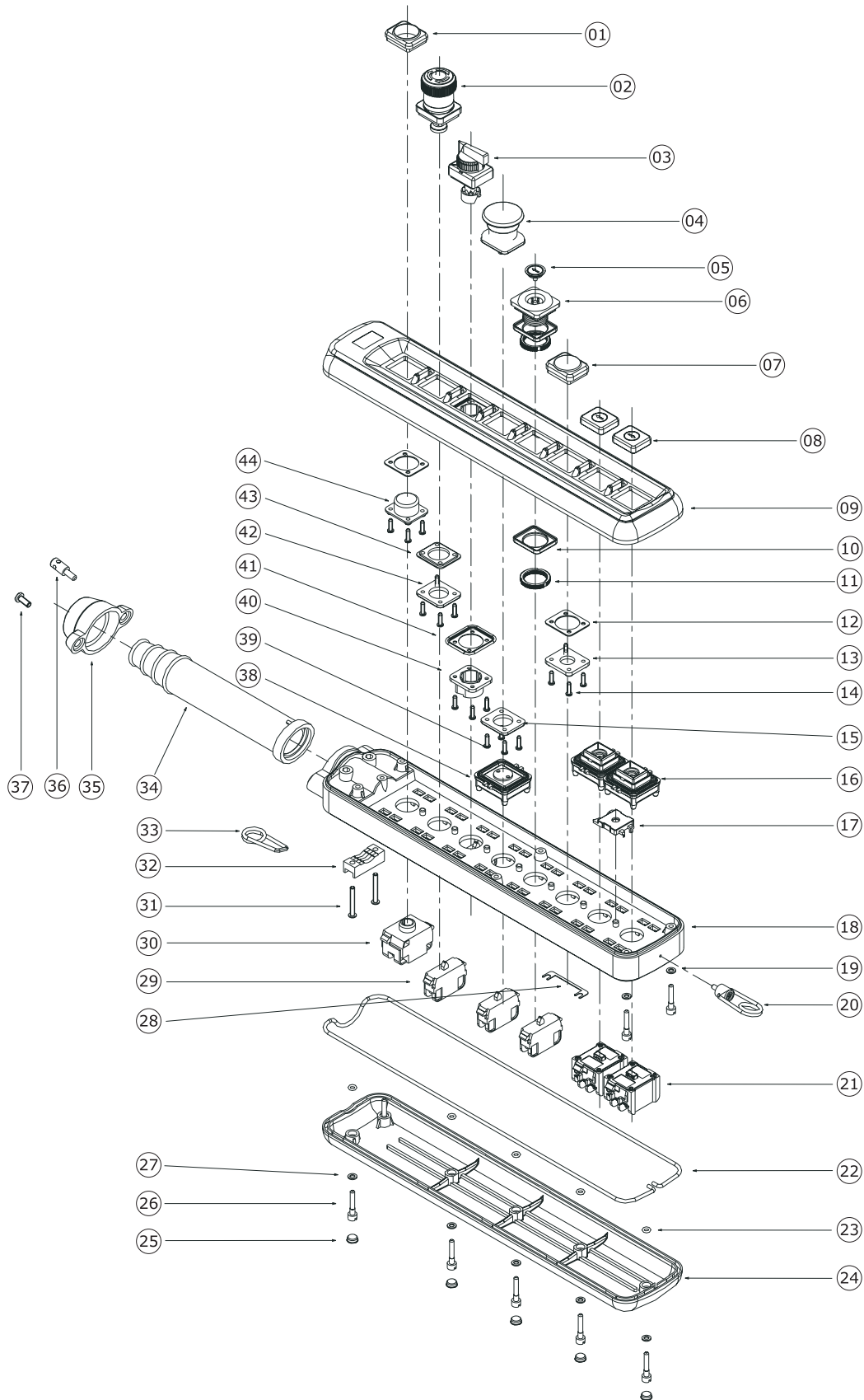
Utilisation category	AC 15
Rated operational current	1.9 A
Rated operational voltage	380 V
Rated thermal current	10 A
Rated insulation voltage	500 V~
Mechanical life	1x10 <sup>6</sup> operations
Terminal referencing	According to EN 50013
Connections	Screw-type terminals

## Overall Dimensions

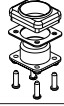
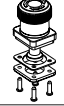
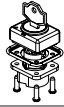
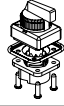

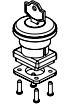


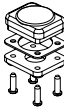







No. of buttons	Weight (kg)	Overall dimensions (mm)					
		A	B	C	D	E	F
2	0,450	292	140	76	70	99	87
3	0,550	333	181	76	70	99	87
4	0,650	372	222	76	70	99	87
6	0,900	459	307	76	70	99	87
8	1,200	605	393	83	70	99	116
10	1,400	685	474	83	70	99	116
12	1,700	771	560	90	70	99	116




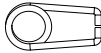
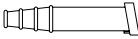


## Detailed Drawing



## Spare Parts

Reference	Drawing	Code	Description
<b>01</b> + 1 2+ 1 4+ 4 4		0515 0516 0521	Red pilot light Green pilot light Yellow pilot light
<b>02</b> + 1 4+ 4 2+ 4 3		0500	Emergency stop mushroom pushbutton
<b>03</b> + 1 4+ 4 0+ 4 1		0513	3 position key selector switch
<b>03</b> + 1 4+ 4 0+ 4 1		0514 0519	3 position selector switch Spring return 3 position selector switch
<b>04</b> + 1 5+ 3 9		0512	Impulse mushroom pushbutton
<b>04</b> + 1 5+ 3 9		0520	Key mushroom pushbutton
<b>05</b>		Axxxxxx See standard disks	Disk for dust-tight pushbutton
<b>06</b> + 1 0+ 1 1		0550	Dust-tight pushbutton
<b>07</b> + 1 2+ 1 3+ 1 4		0517	Blanking plug
<b>08</b>		TAxxxxxx See standard buttons	Button
<b>16</b>		0518	Button housing
<b>17</b>		7816	Mechanical interlock
<b>20</b>		0051	Lower hook
<b>21</b>		0504 0505 0506 0507	1 speed switch - 1no+1nc+1no simultaneous 2 speed switch - 1no+1nc+1no sequenced 1 speed switch - 3no simultaneous 3 speed switch - 3no sequenced

## Spare Parts

Reference	Drawing	Description
<b>28</b>		6120 22 mm connecting bridge
		6121 28 mm connecting bridge
		6122 25 mm connecting bridge
		6123 31 mm connecting bridge
		6124 47 mm connecting bridge
<b>29</b>		0502 1nc switch
		0503 1no switch
<b>30</b>		0501 Lamp holder
<b>33</b>		0001 Upper hook
<b>34</b>		0100 Cable sleeve for 2÷6 button units
		0105 Cable sleeve for 8÷12 button units
<b>36</b>		6626 Wire fixing
<b>38</b>		0522 Actuating base for 0512 and 0520

## STANDARD DISKS



## Standard Buttons

A101X GREEN	A102X RED	A103X YELLOW	A104X GREEN	A105X	A105X	A106X	A106X	A107X	A107X	A108X	A108X
A109X	A109X	A110X	A110X	A111X	A112X	A112X	A113X	A114X	A114X	A115X	A116X
A116X	A117X	A117X	A118X	A119X	A119X	A120X	A121X	A122X	A123X RED	A130I GREEN	A131I RED
A132I YELLOW	A133I GREEN	A134I	A135I	A136I	A137I	A138I	A139I	A140I	A141I	A142I	A143I
A144I	A145I	A146I	A147I	A148I	A149I	A150I	A151I	A152I	A153I	A154I	A155I
A156I	A157I	A170I	A171I	A172I	A173I	A174I	A175I	A176I	A177I	A178I	A179I
A180I	A181I	A183I	A184I	A185I	A186I	A187I	A188I	A189I	A190I	A191I	A192I
A193I	A194I	A199X BLACK	A201I	A202I	A203I	A204I	A205I	A206I	A207I	A208I	A209I
A210I	A211I	A212I	A213I GREEN	A214I	A215I	A216I	A217I	A220X YELLOW	A221X GREEN	A223X	A224X
A229X WHITE	A361X	A361I	A362X	A362I	A363X	A363I	A364X	A364I	A365X	A365I	A372X
A372X	A375X	A375I									

Standard buttons in German, English, French, Spanish and Italian are available.  
Buttons with non-standard letterings and symbols are available on request.



## Use and Maintenance Instructions

The PA 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  $-25^{\circ}\text{C}$  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 (20, 28) 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 (20, 28). Do not oil or grease the control elements (02, 03, 04, 06, 08, 15) or the switches (20, 28).

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

- remove the screws (25) on the lower cover (23) to open the pendant station
- cut the variable section rubber cable sleeve (33) and insert the cable tight enough to guarantee protection against water and/or dust
- fix the cable to the cable sleeve (33) using a cable tie (not supplied).
- strip the cable to a length suitable for wiring the switches (20, 28)
- tape the stripped part of the cable
- fix the cable inside the pendant station using the cable clamp (31)
- connect all the switches (20, 28) according to the contact scheme printed on the switches (tighten the wires into the terminals with a torque equal to 0.8 Nm; insertability of wires into the switch terminals equal to  $2 \times 1.5 \text{ mm}^2 - 1 \times 2.5 \text{ mm}^2$ )
- close the pendant station checking the proper positioning of the rubber (21) in the cover (23) and of the "O" rings (22)
- put the rubber caps for the screws (24) into the holes in the lower cover (23)

### Additional steps for mounting/replacing control/signalling bulbs into the lamp holders

- push the two clips on the sides of the lamp holder (29) to remove it from the central part (17) of the pendant station
- put the bayonet-type bulb into its seat (use BA9s 125V-2.6 W(max) bulbs)
- assemble the lamp holder (29) on the central part (17) of the pendant station checking that the two clips are properly coupled

### Periodic maintenance steps

- check the proper tightening of the screws (25) of the enclosure (09, 17, 23)
- check the proper tightening of the switch (20, 28) terminal screws
- check all wiring (in particular where wires clamp into the switches)
- check the conditions of the rubber (21) fit into the lower cover (23), of the rubber of the control elements (06) and of the cable sleeve (33)
- check that the plastic enclosure (09, 17, 23) 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.

MEYLE declines all responsibility for damages caused by the improper use or installation of the equipment.