Standard modular panels

Standard modular panels are supplied in different versions and models, both for outdoor mounting IP54 and for hazardous areas Eexd/i.

Every panel is realized to control and power the two basic functions of the monitor (rotation and elevation) and if required a remote controlled full/jet spray nozzle or a wide/spread deflector.

In addition it is possible to extend the control to the monitor pipe supply valve.

The panel can be located at the base of the monitor pole or close to the same, in any case in a range within 150 mt. from the monitor.

The panel can be supplied with command and control devices directly built on the front of it or without local commands but with an additional wall mounting command and control box to be installed within a range of 300 mt. from the panel.

To complete the standard modular panel family an execution is provided that in addition to the local commands and controls (either mounted directly on the panel or in the separate box) can interface also a remote command and control location. This feature allows to realize installations with the local command for each monitor and one additional control point common for all monitors.

Standard modular panels IP54 execution

All panels are intended for outdoor installation protection degree IP54.

The external painting of the panels is grey RAL 7035 or if required red RAL 3000 (with extra cost).

Can be supplied with joystick, pushbuttons and control lamps directly mounted on the panel front cover or inserted in a separate box, which can be installed at a maximum distance of 300 mt. and is connected to the panel with a single bus and power cable.

The basic version is equipped with power and control device for two controlled movements (rotation and elevation).

The version with 3 controlled movements can operate in addition a nozzle or deflector or alternatively a motor operated valve.

The version with 4 controlled movements can contemporary operate both above indicated additional devices (nozzle / deflector and valve).

All indicated model can be utilized to operate any electrical remote controlled monitor Caccialanza of the series A3-El, A4-El, A6-El or A8-El; the required features are factory programmed but can be changed if required by qualified and trained technicians in a later stage.

The electrical construction of the panel is realized according to IEC EN60439.

The unit is equipped with a main 3 pole switch as well as with motor protector switch and two power contactors with mechanical interlock for each movement.

All command and controls are operated at a voltage of 24V ac. suitable for installation in all environments (for explosion proof hazardous areas see relevant section).

The panel is provided with voltage indicator lamp as well as fault indicator. For each movement dedicated lamps show the condition of limit switch reached. In case of fault due to intervention of the torque switch (where existing) and/or of the thermal switch (where existing) the fault condition is dedicated by both lamps of the relevant movement contemporary flashing. During the operation only the lamp of the relevant direction is flashing.

According to the particular kind of service, it is possible to override the thermal protections of the actuators connected to the panel in case of emergency operations.

A selector switch clearly indicates this condition which is enforced also by a programmable logical unit with non volatile program. The unit is equipped with serial interface to allow eventual future changes or modification of the program directly on site.

As an option it is possible to insert a junction box between monitor actuators and panel; this solution may be useful if the distance to the panel is relevant in order to reduce the number of cables to be installed.

Standard Panels IP54						
Type	Code	Voltage *	# of controlled movements	Remote module	Control device location	Weight (Kg)
SPA01FR-2	4685011200	400V/50Hz	2	No	Front	15
SPA01FR-3	4685011300	400V/50Hz	3	No	Front	16
SPA01FR-4	4685011400	400V/50Hz	4	No	Front	18
SPA01RE-2	4685012200	400V/50Hz	2	No	Box	14+6
SPA01RE-3	4685012300	400V/50Hz	3	No	Box	15+6
SPA01RE-4	4685012400	400V/50Hz	4	No	Box	17+7

* different voltages and frequencies as well as DC execution on request.

In the next table all technical drawings referred to each model of standard panel are listed and can be directly opened:

Standard Panels IP54 – Technical drawings cross reference						
Type	Code	Panel Electrical diagram #	Interconnection drawing. #	Optional Junction Box		Note
				El. Diagram #	Intercon. Dwg.	
SPA01FR-2	4685011200	46403101	46401101	46403010	46401102	
SPA01FR-3	4685011300	46403111	46401101	46403020	46401102	
SPA01FR-4	4685011400	46403121	46401101	46403030	46401102	
SPA01RE-2	4685012200	46403201	46401201	46403010	46401202	
SPA01RE-3	4685012300	46403211	46401201	46403020	46401202	
SPA01RE-4	4685012400	46403221	46401201	46403030	46401202	

The expanded execution of the standard panels presents all the features and models above described for the standard execution, but is completed with an additional remote control module which duplicates all the commands and the control indications present on the local panel. In this way it is possible to operate the monitor locally and from a remote position.

The remote control module is supplied as command plate to be inserted in a modular wall mounted box or in a command panel for standing operation fixed on the ground. In both cases the final construction meets the degree of protection IP 54.

The modular box and the ground fixed standing operation panel can be supplied in different sizes to accept the required quantity of modules according to the number of monitors of the installation to be controlled from the remote location.

The connection between panel and remote module can be as far as 300 mt. and is realized with a single bus cable. An additional power supply is required in the remote box or panel for standing operation; in case only one monitor is remote controlled over a distance less than 200 mt. the power supply of the remote module can be directly derived from the panel with an additional cable.

Expanded Panels						
Type	Code	Voltage *	# of controlled movements	Remote module	Control device location	Weight (Kg)
SPA02FR-2	4685015200	400V/50Hz	2	Yes	Front	15
SPA02FR-3	4685015300	400V/50Hz	3	Yes	Front	16
SPA02FR-4	4685015400	400V/50Hz	4	Yes	Front	18
SPA02RE-2	4685016200	400V/50Hz	2	Yes	Box	14+6
SPA02RE-3	4685016300	400V/50Hz	3	Yes	Box	15+6
SPA02RE-4	4685016400	400V/50Hz	4	Yes	Box	17+7

* different voltages and frequencies as well as DC execution on request.

In the next table all technical drawings referred to each model of standard panel are listed and can be directly opened:

Expanded Panels – Technical drawings cross reference						
Type	Code	Panel Electrical diagram #	Interconnection drawing. #	Optional Junction Box		Note
				El. Diagram #	Intercon. Dwg.	
SPA02FR-2	4685015200	46403501	46401501	46403010	46401502	
SPA02FR-3	4685015300	46403511	46401501	46403020	46401502	
SPA02FR-4	4685015400	46403521	46401501	46403030	46401502	
SPA02RE-2	4685016200	46403701	46401611	46403010	46401612	
SPA02RE-3	4685016300	46403711	46401611	46403020	46401612	
SPA02RE-4	4685016400	46403721	46401611	46403030	46401612	

The following table lists all auxiliary elements and components of the Standard Panel System. Every component is described and all technical features are reported in the technical literature of the relevant main component which the same is referred to.

Auxiliary Panels IP54					
Type	Code	Voltage *	Unit Description	Modules max. #	Weight (Kg)
SJBM1	4685010100	/	Monitor Junction Box IP54	1	5
SPAR1-2	4685012120	24VDC	Separate Local Command Box 2 Mov.	1	6
SPAR1-3	4685012130	24VDC	Separate Local Command Box 3 Mov.	1	6
SPAR1-4	4685012140	24VDC	Separate Local Command Box 4 Mov.	1	7
SREPA01	4685015110	230V/50Hz	Wall mount. Expansion Cabinet	1	12
SREPA03	4685015130	230V/50Hz	Wall mount. Expansion Cabinet	3	15
SREPA05	4685015150	230V/50Hz	Wall mount. Expansion Cabinet	5	18
SREPA08	4685015180	230V/50Hz	Wall mount. Expansion Cabinet	8	21
SREPU03	4685016130	230V/50Hz	Ground standing Expansion Cabinet	3	30
SREPU05	4685016150	230V/50Hz	Ground standing Expansion Cabinet	5	40
SREPU08	4685016180	230V/50Hz	Ground standing Expansion Cabinet	8	60

Standard modular panel explosion proof Eexd/i-execution

All panels are intended for outdoor installation with mechanical protection degree IP54 and explosion proof protection for installation in Class 2 div 1 with temperature level T2.

For all the power panel this is realized as protection Eexd II T2, with the exception of separate boxes for command and controls only which are normally realized as Eexi execution.

The panels are constructed in light alloy with natural aluminium colour (RAL 3000 additional painting can be supplied with extra cost); the external painting of the additional box is grey RAL 7035 or if required red RAL 3000 (with extra cost).

The unit can be supplied with pushbuttons and control lamps directly mounted on the cover of the Eexd panel as stand alone unit or with joystick, pushbuttons and control lamps installed in a separate Eexi box, which is connected to an Eexd interface panel equipped with Zener safety barriers.

This interface can be located at a maximum distance of 200 mt. from the panel and is connected to this with a single bus and power cable.
The basic version is equipped with power and control device for two movements (rotation and elevation).

The version with 3 movements can operate in addition a nozzle or deflector or alternatively a motor operated valve.

The version with 4 movements can contemporary operate both additional devices (nozzle / deflector and valve).

All indicated model can be utilized to operate any electrical remote controlled monitor Caccialanza of the series A3-El, A4-El, A6-El or A8-El; the required features are factory programmed but can be changed if required by qualified and trained technicians in a later stage.

The electrical construction of the panel is realized according to IEC EN60439 and EN50018.

The unit is equipped with a main 3 pole switch as well as with motor protector switch and two power contactors with mechanical interlock for each movement.

All command and controls are operated at a voltage of 24V AC for stand alone units or 24 V DC for units with separate command box.

The panel is provided with voltage indicator lamp as well as fault indicator. For each movement dedicated lamps show the condition of limit switch reached. In case of fault due to intervention of the torque switch (where existing) and/or of the thermal switch (where existing) the fault condition is dedicated by both lamps of the relevant movement contemporary flashing. During the operation only the lamp of the corresponding direction is flashing.

According to the particular kind of service, it is possible to override the thermal protections of the actuators connected to the panel in case of emergency operations.

A selector switch clearly indicates this condition which is enforced also by a programmable logical unit with non volatile program. The unit is equipped with serial interface to allow eventual future changes or modification of the program directly on site.

As an option it is possible to insert a junction monitor actuators and panel; this solution may be useful if the distance to the panel is relevant in order to reduce the number of cables to be installed.

Standard Panels Eexd						
Type	Code	Voltage *	# of controlled movements	Remote module	Control device location	Weight (Kg)
EPA11FR-2	4685031200	400V/50Hz	2	No	Front	60
EPA11FR-3	4685031300	400V/50Hz	3	No	Front	62
EPA11FR-4	4685031400	400V/50Hz	4	No	Front	64
EPA11RE-2	4685032200	400V/50Hz	2	No	Box	58+25
EPA11RE-3	4685032300	400V/50Hz	3	No	Box	60+27
EPA11RE-4	4685032400	400V/50Hz	4	No	Box	62+30

* different voltages and frequencies as well as DC execution on request.

In the next table all technical drawings referred to each model of standard panel are listed and can be directly opened:

Standard Panels Eexd – Technical drawings cross reference						
Type	Code	Panel Electrical diagram #	Interconnection drawing. #	Optional Junction Box		Note
				El. Diagram #	Intercon. Dwg.	
EPA11FR-2	4685031200	46404101	46402101	46404010	46402102	
EPA11FR-3	4685031300	46404111	46402101	46404020	46402102	
EPA11FR-4	4685031400	46404121	46402101	46404030	46402102	
EPA11RE-2	4685032200	46404201	46402201	46404010	46402202	
EPA11RE-3	4685032300	46404211	46402201	46404020	46402202	
EPA11RE-4	4685032400	46404221	46402201	46404030	46402202	

The expanded execution presents all the features and models above described, but is completed with an additional remote control module which duplicates all the commands and the control indications present on the local panel. In this way it is possible to operate the monitor locally and from a remote position located in safe area (a special version for hazardous areas is too available).

The remote control module is supplied as command plate to be inserted in a modular wall mounted box or in a command panel for standing operation fixed on the ground. In both cases the final construction meets the degree of protection IP 54.

The modular box and the ground fixed standing operation panel can be supplied in different sizes to accept the required quantity of modules according to the number of monitors of the installation to be controlled from the remote location.

The connection between panel and remote module can be as far as 300 mt. and is realized with a single bus cable. An additional power supply is required in the remote box or panel for standing

operation; in case only one monitor is remote controlled over a distance less than 200 mt. the power supply of the remote module can be directly derived from the panel with an additional cable.

Expanded Panels Eexd						
Type	Code	Voltage *	# of controlled movements	Remote module	Control device location	Weight (Kg)
EPA12FR-2	4685035200	400V/50Hz	2	Yes	Front	60
EPA12FR-3	4685035300	400V/50Hz	3	Yes	Front	62
EPA12FR-4	4685035400	400V/50Hz	4	Yes	Front	64
EPA12RE-2	4685036200	400V/50Hz	2	Yes	Box	58+25
EPA121RE-3	4685036300	400V/50Hz	3	Yes	Box	60+27
EPA12RE-4	4685023600	400V/50Hz	4	Yes	Box	62+30

* different voltages and frequencies as well as DC execution on request.

In the next table all technical drawings referred to each model of standard panel are listed and can be directly opened:

Expanded Panels Eexd – Technical drawings cross reference						
Type	Code	Panel Electrical diagram #	Interconnection drawing. #	Optional Junction Box		Note
				El. Diagram #	Intercon. Dwg.	
EPA12FR-2	4685035200	46404501	46402501	46404010	46402502	
EPA12FR-3	4685035300	46404511	46402501	46404020	46402502	
EPA12FR-4	4685035400	46404521	46402501	46404030	46402502	
EPA12RE-2	4685036200	46404701	46402611	46404010	46402612	
EPA121RE-3	4685036300	46404711	46402611	46404020	46402612	
EPA12RE-4	4685023600	46404721	46402611	46404030	46402612	

The following table lists all auxiliary elements and components of the Standard Panel System. in the Eexd version.
Every component is described and all technical features are reported in the technical literature of the relevant main component which the same is referred to.

Auxiliary Panels Eexd					
Type	Code	Voltage *	Unit Description	Modules max. #	Weight (Kg)
EJBM1	4685030100		Monitor Junction Box Eexd	/	20
SPAR1-2	4685012120	24VDC	Separate Local Command Box 2 Mov	/	15
SPAR1-3	4685012130	24VDC	Separate Local Command Box 3 Mov	/	18
SPAR1-4	4685012140	24VDC	Separate Local Command Box 4 Mov	/	18
EPISI-2	4685032120	24VDC	Zener Barriers for Comm. Box 2 Mov.	/	16
EPISI-3	4685032130	24VDC	Zener Barriers for Comm. Box 3 Mov	/	16
EPISI-4	4685032140	24VDC	Zener Barriers for Comm. Box 4 Mov	/	16
SREPA01	4685015110	230V/50Hz	Wall mount. Expansion Cabinet	1	12
SREPA03	4685015130	230V/50Hz	Wall mount. Expansion Cabinet	3	15
SREPA05	4685015150	230V/50Hz	Wall mount. Expansion Cabinet	5	18
SREPA08	4685015180	230V/50Hz	Wall mount. Expansion Cabinet	8	21
SREPU03	4685016130	230V/50Hz	Ground standing Expansion Cabinet	3	30
SREPU05	4685016150	230V/50Hz	Ground standing Expansion Cabinet	5	40
SREPU08	4685016180	230V/50Hz	Ground standing Expansion Cabinet	8	60