





Juliet joysticks are control devices for all industrial machinery. They operate as auxiliary controllers of electrical motors through a power interface, such as a contactor. Designed for heavy duty use by qualified operators, Juliet is aimed specifically for the industrial market.

DESIGN

Size and shape, resulting from a thorough analysis of the ergonomic features of the product, combined with the research of a graphic style suitable for a modern industrial environment, make Juliet easy to operate. The equipment has been designed to facilitate maintenance, thus saving on time and costs. The switches are assembled on pull-out or fixed terminal boards.

OPTIONS

FEATURES

Juliet is available with up to 5 speed in each direction, stepped or linear and with cross or 360° movement. Potentiometers can be fitted instead of the switch boards.



INDUSTRIAL LIFTING



CONSTRUCTION LIFTING



INDUSTRIAL AUTOMATION



STAGE TECHNOLOGY

02042013-01

BUSINESS PARTNER

STANDARDS - MARKINGS - HOMOLOGATIONS

- Conformity to Community Directives:	EN 60947-1 Low-voltage switchgear and controlgear
2006/95/CE: Low Voltage Directive	EN 60947-5-1 Low-voltage switchgear and controlgear - Control
2006/42/CE: Machinery Directive	circuit devices and switching elements - Electromechanical control
- Conformity to Standards:	- Markings and homologations: CE
EN 60204-1 Safety of machinery - Electrical equipment of machines	

GENERAL TECHNICAL SPECIFICATIONS

- Storage ambient temperature: -40°C/+70°C
- Operational ambient temperature: -25°C/+70°C
 Protection degree: IP 00 (IP 65 max. when assembled in specific enclosure)
- Operating positions: any position
- Weight: 250 g
- Markings and homologations: CE

TECHNICAL SPECIFICATIONS OF THE MICROSWITCHES

- Utilisation category: AC 15
- Rated operational current: 2 A
- Rated operational voltage: 48 V
- Rated thermal current: 8 A
- Rated insulation voltage: 60 V
- Mechanical life: 0.5x106 operations
- Connections: screw-type terminals
- Wires: 0.14 mm² 1.5 mm²
- Tightening torque: 0.22 Nm 0.25 Nm
- Markings and homologations: $C \in$

OVERALL DIMENSIONS

The single switch PRVV0804PE has 1 NO + 1 NC change over contacts. All NC contacts are of the positive opening operation type. The switches have the following reference for internal wiring.





134 mm

With potentiometer

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JULIET - JOYSTICK

COMPONENTS

LEVER GUIDES

REF	DRAWING	DESCRIPTION	Code
4		Lever guide 3-0	PRSL9824PI
		Lever guide 5-4	PRSL9825PI
		Lever guide 3-3	PRSL9826PI
		Lever guide 5-2	PRSL9828PI
		Lever guide 5-5	PRSL9830PI
		Lever guide 5-0	PRSL9834PI
		Lever guide 4-0	PRSL9835PI
		Lever guide 1-3	PRSL9838PI
		Lever guide 1-5	PRSL9839PI
		Lever guide 3-2	PRSL9841PI
		Lever guide 3-5	PRSL9842PI
		Lever guide 2-4	PRSL9843PI
		Lever guide 4-1	PRSL9844PI
		Lever guide 3-4	PRSL9845PI
		Lever guide 4-4	PRSL9849PI
		Lever guide 1-1	PRSL9871PI
		Lever guide 1-0	PRSL9872PI
		Lever guide 1-2	PRSL9873PI
		Lever guide 2-2	PRSL9876PI
		Lever guide 2-0	PRSL9880PI

SWITCH BOARDS

Ref	DRAWING	DESCRIPTION	CODE
17		12 switch board with pull-out terminal board - 5 positions	93546
		12 switch board with fixed terminal board - 5 positions	93547
	A LAND AND A LAND A	8 switch board with pull-out terminal board - 3 positions	93557
		8 switch board with fixed terminal board - 3 positions	93558
		12 switch board with pull-out terminal board disjoint commons - 5 positions	93575
		8 switch board with pull-out terminal board disjoint commons - 3 positions	93576

	Самме		
REF	DRAWING	DESCRIPTION	Code
12		Cam 1st step	PRSL7300PI
		Cam 2nd-3rd steps	PRSL7301PI
		Cam 4th-5th steps	PRSL7302PI
_	Potentiometers		
REF	DRAWING	DESCRIPTION	CODE
29	E F	Potentiometer 5 kΩ	PRVV9021PE
		Potentiometer 10 kΩ	PRVV9026PE

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STANDARD







WITH POTENTIOMETER







STANDARD JOYSTICKS

Juliet standard joystick have spring return stepped movement and are equipped as follows:

1NO+1NC change over microswitches PRVV0804PE [-

and fixed terminal board

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Positions	Code
1-0	PF34021000004
1-1	PF340211000001
1-2	PF340212000001
1-3	PF340213000001
2-0	PF34022000004
2-2	PF340222000001
2-3	PF340223000001
3-0	PF34023000004
3-3	PF340233000001
3-3 cross	PF340233000004
4-0	PF34024000004
1-5	PF340215000001
3-5	PF340235000001
5-5	PF340255000001
5-5 cross	PF340255000004

REMARKS





REQUEST FORM FOR JULIET NON STANDARD JOYSTICKS



Joystick with potentiometers

Potentiometers



Instructions

- Mark the box corresponding to the type of **movement** required.
- Choose the type of **lever guide** required blackening the boxes corresponding to the number of steps of the lever in each direction.
- In case a terminal board is requested, mark the corresponding box to choose the type of board.
- In case of **potentiometers**, write the number corresponding to the potentiometer or to the preset required.
- Fill in the contact scheme blackening the boxes corresponding to the positions where the cams close the contacts (each bar of 11 boxes corresponds to a switch; the central box corresponds to the zero position of the joystick). In the example, the contact is closed in positions 1-2-3 to the left and 3-4 to the right.



JULIET - JOYSTICK

USE AND MAINTENANCE INSTRUCTIONS

The Juliet joystick is an electromechanical device for device for low voltage control circuits (EN 60947-1, EN 60947-5-1) for use as electric equipment on machines (EN 60204-1) in compliance with the fundamental requirements of the Low Voltage Directive 2006/95/CE and of the Machine Directive 2006/42/CE.

The Juliet joystick is designed for use in industrial environments with even very severe climatic conditions (working temperatures from -25 °C to +70 °C and is suitable for use in tropical environments). The equipment is not suitable for use in environments with a potentially explosive atmosphere, in the presence of corrosive agents or high percentage of sodium chloride (saline mist). Contact with oil, acids and solvents may damage the equipment.

The terminal board $(17)^*$ is designed for the auxiliary control of contacts or electromagnetic charges in general (class of use AC-15 in accordance with EN 60947-5-1). Do not oil or grease the control elements (17) or the board (12). With regard to the conditions for installation, use and evaluation of the essential requisite for safety and the protection of health, the joystick must be installed so as to ensure adequate protection of the equipment in general, and the active parts in particular (protection against electrocution and against the penetration of solid bodies and liquids).

Installation of the Juliet joystick should be done by competent, trained personnel. The electric wiring must be done in a workmanlike manner in compliance with the regulations in force.

Before performing installation and maintenance of the Juliet joystick, disconnect the machine from the power mains.

Operations for correct installation of the joystick

- Remove the bellows (1) from the lever guide (4) on the joystick
- Unscrew the bellows (1) from the rod (24)
- Remove the lever guide (4) from the joystick by unscrewing the four screws (3-26).
- Insert the joystick in the hole on the support (the support has a thickness of 3 mm with a hole Ø 40 mm)
- Fasten the lever guide (4) with the four screws (3-26) (take care to assemble it in the proper direction relative to the joystick movement)

- Fasten the bellows (1) on the rod (24) of the joystick and reposition the bellows correctly (1) (take care to joint the threads of the lever and knob correctly without forcing, and screw the knob to the limit of the threading)

- Assemble the bellows (1) on the joystick positioning them under the lever guide (4) (take care to position the bellows correctly under the drive lever to ensure an even compression surface between the bellows and the support)

- Turn the joystick in the desired direction and fasten with the four screws (7) on the support (the screws must be fastened evenly to ensure correct pressure and seal between bellows and support)

- Strip the multi-pole cable for a length sufficient for electrical connection with connector on the board (17)

- Tape the initial stripped part of the cable
- Fasten the multi-pole cable so as to prevent the possibility of external traction on the connections
- Proceed to wire the connectors to their terminals as shown in the wiring diagram

Operations of routine maintenance

- Check the correct tightening of the screws (7) fastening the joystick to the support
- Check the conditions of the wires
- Check the conditions of the bellows (1) on the joystick

Any change to parts of the joystick will invalidate the rating plate data and identification of the device, and render the warranty null and void. In case of replacement of any part, use only original replacements.

TER is not liable for damages caused by improper use of the device and installation which is not made correctly.

*Please refere to the detailed drawing in the catalogue



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