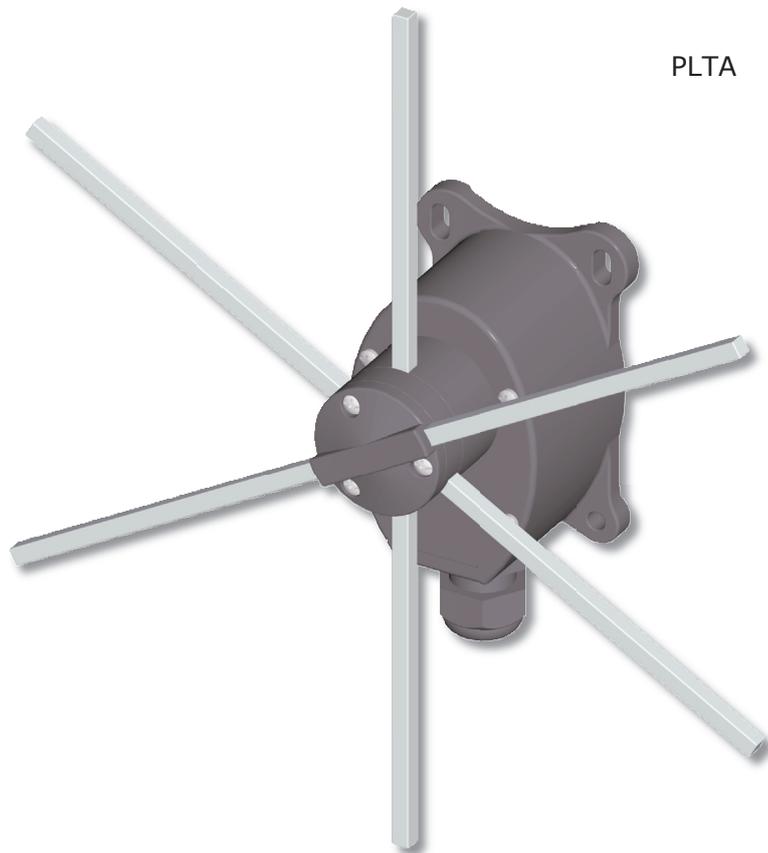


Position Limit Switches PLTA



PLTA is a position limit switch designed to control overhead travelling cranes, hoists and machine tools. It operates as auxiliary controller of electrical motors through power interfaces, such as contactors or PLCs.

PLTA is the latest generation of position limit switches: the peculiar design and the use of high performing polymers ensure high resistance and endurance under the heaviest utilisation conditions. Its design and overall dimensions facilitate installation and maintenance operations.

Both the enclosure and the head of PLTA are made of thermoplastic material (nylon reinforced with fibreglass) ensuring wear resistance and protecting the equipment against water and dust. X-type rods can move to 4 maintained positions. Inner components are made of tecno-polymers guaranteeing a long life-cycle and constant performance even at extreme temperatures.

PLTA is equipped with 1NC slow action switches or, upon request, 1NO switches. All switches are of the positive opening type, thus suitable for safety functions.

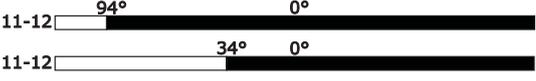
Technical Specifications

Conformity to Community Directives	73/23/CEE 93/68/CEE
Conformity to Standards	EN 60204-1 EN 60947-1 EN60947-5-1 EN 60529 IEC 536
Ambient temperature	Storage -40°C/+70°C Operational -25°C/+70°C
Protection degree	IP 65
Insulation category	Class II
Cable entry	Cable clamp M20
Operation frequency	3600 operations/hour max.

Technical Specifications of the Switches

Utilisation category	AC 15
Rated operational current	3 A
Rated operational voltage	250 V
Rated thermal current	10 A
Rated insulation voltage	500 V~
Mechanical life	1x10 ⁶ operations
Terminal referencing	According to EN 50013
Connections	Screw-type terminals

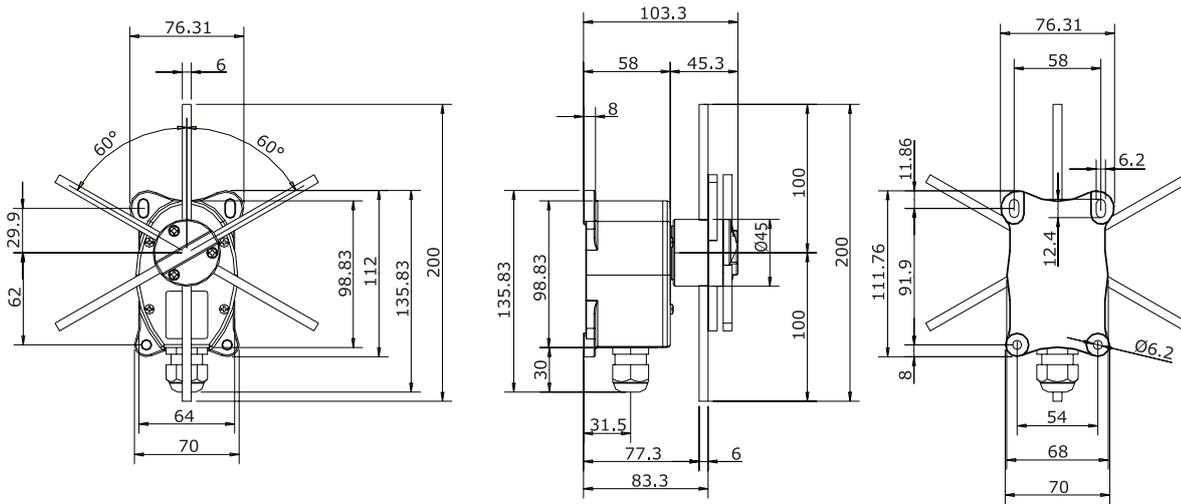
Standard Limit Switch Codes

Code	No. of switches	Rod length	Actuating travel
MY20001	2	300 mm	11-12 
MY20005	2	250 mm	
MY20006	2	200 mm	
MY30001	3	300 mm	11-12 
MY30002	3	250 mm	11-12 
MY30003	3	200 mm	11-12 
MY40001	4	300 mm	11-12 
MY40006	4	250 mm	11-12 
MY40007	4	200 mm	11-12 

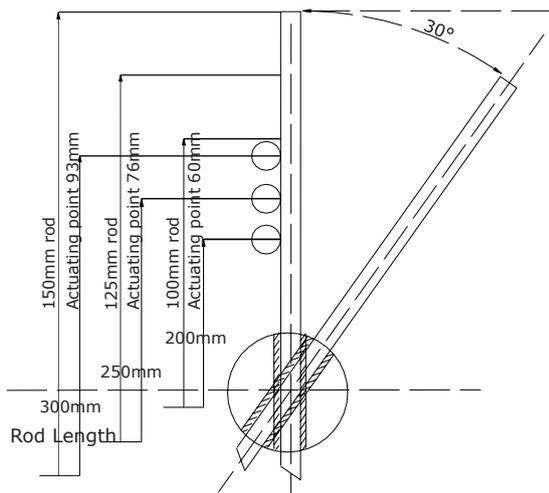
Limit switches are equipped with 1NC switches MY1001PI.



Overall Dimensions



Maximum Actuating Dimensions

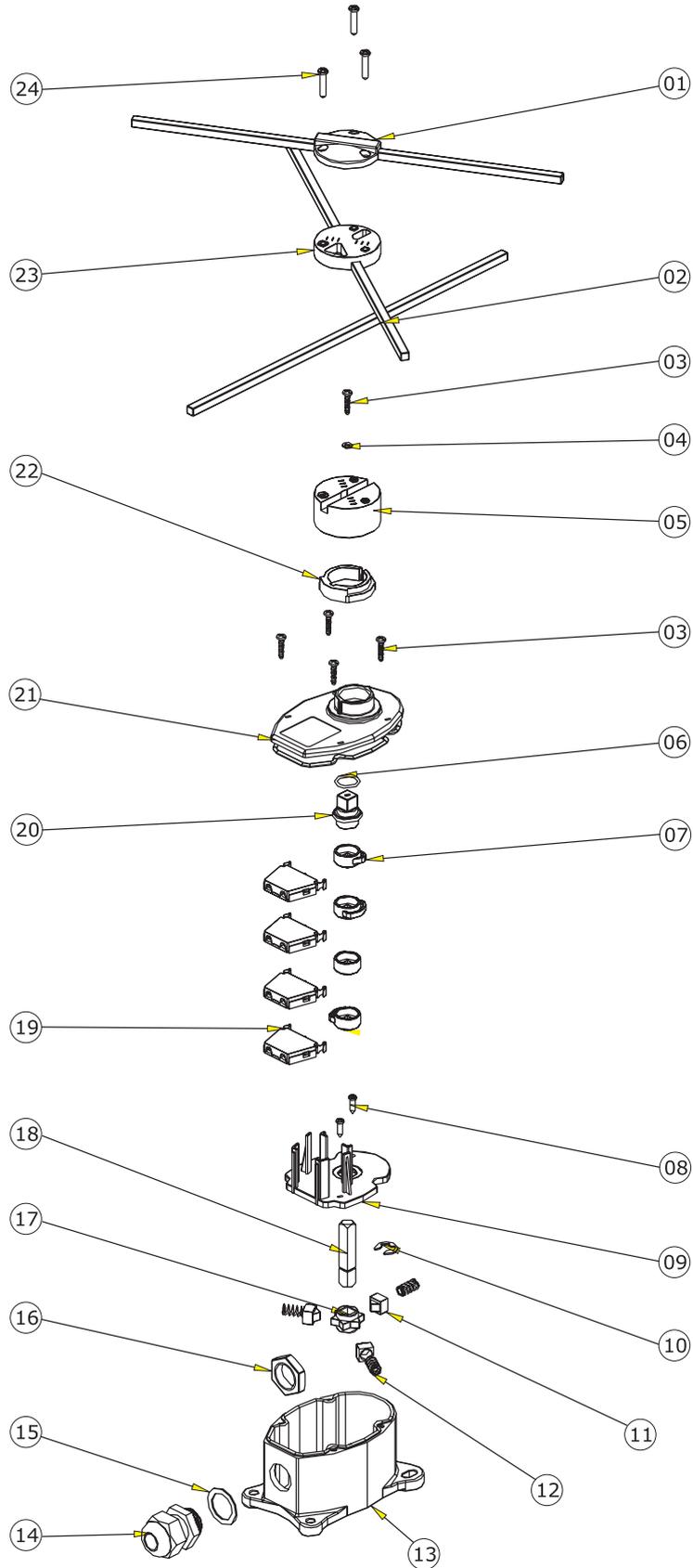


Rods with 4 maintained positions

Pre-travel angle for rotation contact operation	34°
Maximum rotation angle for each maintained position	60°
Average angle for the mechanical tripping	30°
Maintained positions each	60°

In order to ensure proper operations, the dimensions shall not be increased; anyhow, they can be decreased, taking into account that the closer the impact point is to the center of the head, the higher the impact and the mechanical wear of rod and shaft are.

Detailed Drawing



The data and the products illustrated in this brochure may be modified without notice. Under no circumstances can their description have a contractual value.

Components

Reference	Description
01	Upper rod support
02	Rod 6x6x200 mm Rod 6x6x250 mm Rod 6x6x300 mm
03	Screw 3.9x16
04	Toothed washer
05	Lower rod support
06	O-ring 2056
07	Cam 60° sx Cam 60° dx Cam 110° sx Cam 110° dx Cam for right-left slowing
08	Screw 3.5x12
09	Switch holder plate
10	Elastic ring
11	Pin for notch
12	Spring
13	Enclosure
14	Cable clamp M20
15	Cable clamp gasket
16	Cable clamp nut
17	Wheel for notches
18	Shaft
19	1NO switch 1NC switch
20	Drive bush
21	Cover with gasket
22	Ring for rod support
23	Middle rod support
24	Screw 4x20

Use and Maintenance Instructions

The PLTA limit switch is an electromechanical 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 essential requisites of the Low Voltage Directive 73/23/EEC and the Machine Directive 89/392/EEC.

The limit switch 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 limit switches is not suitable for use in environments with a potentially explosive atmosphere.

The PLTA limit switch must be fastened through the holes on the side of the case (13); in particular the top holes are slots to facilitate fastening and adjustment of the limit switch, which must be suitably position to ensure correct impact on the drive rods (02). To prevent malfunctions or problems; examine the technical documentation to view the recommended impact points.

Turn the closing screws (24) and loosen the closure of the rod holder (01, 05, 23), then you can move the rods to adjust them; afterwards, tighten the closing screws (24) with a force of 100cN m to ensure secure fastening of the rod holder. We recommend adjusting the impact point of the rods (02) by adjusting the fastening of the entire limit switch and not simply moving the rods.

The switches (19) of the PLTA are designed for the auxiliary control of contacts or electromagnetic charges in general (utilization category AC-15 in accordance with EN 60947-5-1). The switches (19) have contacts with positive mechanical opening operation (EN 60947-5-1). Do not connect more than one phase for the switches (19). Never oil or grease the switches (19). To facilitate wiring the switches (19) the limit switches can be removed from the case (13); after wiring, the switches (19) must be replaced correctly in the case (13), then assemble the cover (21) and tighten the screws (03) with a minimum force of 100cN m.

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

Before performing installation and maintenance of the limit switches, disconnect the machine from the power mains.

Operations for installation and correct wiring of limit switch

- fasten the limit switch securely to prevent malfunctions during use of the device; to fasten it, use the holes on the sides of the case (13); fasten the limit switch so that the drive rods (02) function correctly, by examining the technical documentation to identify the recommended point of impact; adjust the (02), by turning the closing screws (24) on the relative rod holder elements (01, 05, 23). Afterwards, tighten the screws (24) with a force of 100cN m
- introduce the multi-pole wire in the limit switch through the wire clamp (14)
- strip the multi-pole cable for a length sufficient to wire it to the switches (19)
- wire the switches (19) as shown in the wiring diagrams on each (19); tighten the wires into the terminals of the switches with a torque of 0.8 Nm (insertability of wires into the switch terminals equal to $2 \times 1.5 \text{ mm}^2 - 1 \times 2.5 \text{ mm}^2$)
- after wiring tighten the wire in the wire clamp (14)
- close the limit switch with its cover (21) with the closing screws (03); applying a force of at least 100cN m

Operations of routine maintenance

- check the correct tightening of the closing screws (03) on the cover (21)
- check the conditions of the wires on the switches (19) (if necessary, tighten the screws on the terminals)
- tighten the multi-pole wire in the wire clamp (14)
- check the conditions of the complete limit switch (01, 02, 05, 13, 21, 23)
- check the fastening of the limit switch

Any change to parts of the limit switch 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.

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