

Rotary Limit Switches

Features

- Safety Rotary Limit Switches
- Ratio from 1:17 to 1:200 or absolute sensor
- Small, ergonomic and easy to install
- Longitudinal and horizontal shaft solutions
- Plug in solution
- 2 or 4 1NO+1NC rapid positive opening contacts
- 2 different type of cams
- Positive opening contacts
- Different type of accessories

RS PRO Rotary Limit Switches

RS Stock No.: 0782178



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

The rotary limit switch is a device used to safely control the motion of construction and industrial machinery. Thanks to its small dimensions and longitudinal or horizontal configurations also, this limit switch is particularly suitable for use in limited spaces and areas with difficult access. It is connected through its shaft to a gear motor or a rotary winch that, after a pre-set number of turns, causes the adjustable cams to trigger the internal safety contacts. The cam adjustment allows for a precise setting of the micro switch activation point. The contacts are EN 60947-5-1 positive-opening; alternatively, an angular rotation sensor can be fitted to allow linear position control. This product was devised to highly simplify the wiring, reduce assembly timings and labour costs. Several designed accessories are also available to facilitate its coupling with gear motors or rotary winches.

Mechanical Specifications

Plastic casing	Technopolymer with high mechanical and thermal resistance
Operating temperature	-20°C ÷ +60°C
Storage temperature	-20°C ÷ +60°C
Cable entries	M20x1,5 D. 5 / 9mm cable gland
Connection type	Fingerproof screw terminal
Terminal tightening torque	0.6 Nm
Insulation category	Class II
Max. rotation speed	500 rpm
Shaft material	Stainless steel
Mechanical lifetime	10•10 ⁶ operations

Electrical Specifications

Nominal thermal current	10A
Operating current	3A
Insulation voltage	250V
Operating voltage	250V
Usage category	AC-15 according to EN 60947-5-1

Protection Category

Protection degree	IP42 or IP65
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Approvals

Compliance with EEC Directives	2014/35/UE 2011/65/UE
Compliance with Rules	EN 60947-1 EN 60947-5-1 EN 60529 EN 60204-1
Approval	CE

Adjustments

A special clutch system ensures quick and precise adjustment and guarantees stability, consistency and reliability over time

Cams fine adjustment:

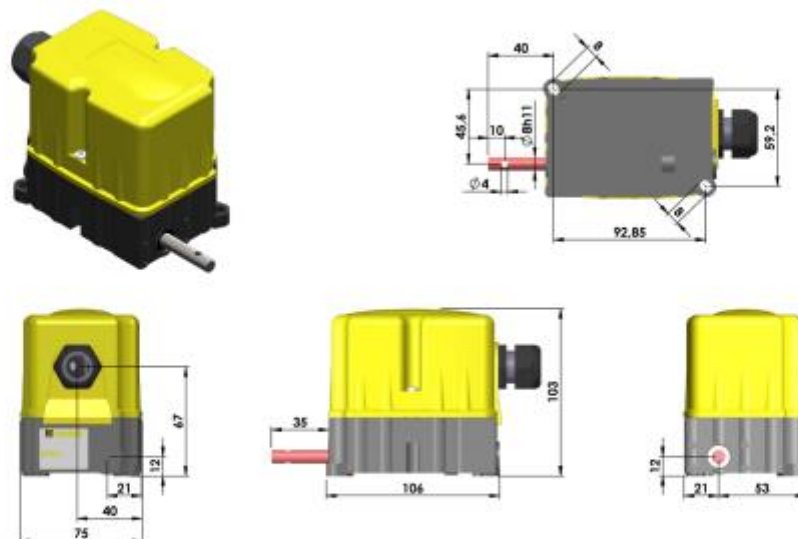
- Position the machine where you wish to activate the limit switch contact
- Adjust the cam with a screwdriver until the contact activates
- Repeat the operation for each contact (recommended screwdriver is 4.0 x 0,8)

Standard Cams profile

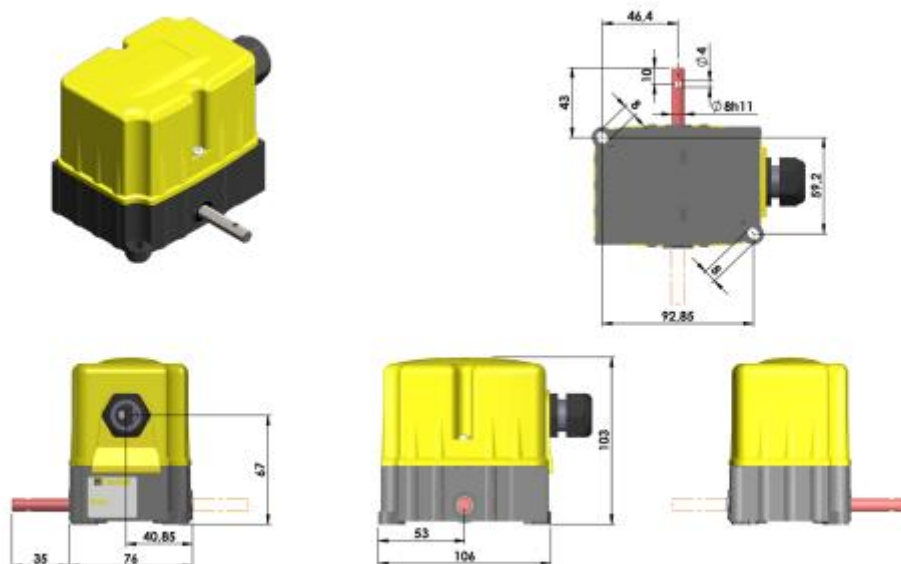
Type	Description	Image
A	Pointed – White	
B	Sector – Grey	

Dimensions

Version with longitudinal shaft



Version with horizontal shaft



Special Version

With years of experience in the manufacturing of safety rotary limit switches, RS PRO has now developed a product that harmonizes the mechanical precision of the limit switch with the absolute sensor most advanced electronics.

This limit switch is connected through the external shaft and allows the sensor to reduce the movement to a single turn, protecting it from weather agents and shocks, through a simple mechanical connection.

The absolute sensor mechanically interfaces with the limit switch and detects the value of the angular position, identifying the rotation direction.

High resolution, reliability and repeatability are guaranteed even under extreme conditions.

Operating voltage	5...24 V
Operating current	50mA
Operating temperature	-20° ÷ +70°C
Interface	RS485; asynchronous; half duplex
Transfer rate	9,600 / 19,200 / 38,400 / 57,600 bps
Angle detection range	360°, single turn
Resolution	0,0879°/ step (12 bit = 4096 steps over 360°)
Accuracy	+/- 0,2° +/- 4 bits over 8192 per 360°
Protection degree	IP 20
Interference reception	EN 61326-1
Interference emission	Group 1 Class B EN 61326-1 / EN 55011:2016
Max rotation speed	160°/s

Electrical connection diagram of the sensor



Code and Type

Code	Standard type
0782181	RS PRO IP42 rotary limit switch ratio 1:025 longitudinal shaft with 485 output sensor
0782180	RS PRO IP65 rotary limit switch ratio 1:100 longitudinal shaft 4 safety contacts 20° cams
0782178	RS PRO IP65 rotary limit switch ratio 1:017 longitudinal shaft 4 safety contacts 45° cams
0782179	RS PRO IP65 rotary limit switch ratio 1:025 longitudinal shaft 4 safety contacts 45° cams