



Explosion proof rotary limit switch. Rugged and reliable, Limitex AG is used to control the movement of industrial machinery in potentially explosive areas.

FEATURES

- It consists of a gear motor that transfers movement to the cams through a primary input reduction stage (worm gear and helical toothed gear) and one or more secondary output stages (pairs of straight toothed gears).
- Accurate adjustment of cams by means of screws.
- Positive opening NC contacts for safety functions.
- Mechanical life of switches: 1 million operations.
- IP protection degree: Limitex AG is classified IP66.
- Extreme temperature resistance: -50°C to +60°C.
- It features external enclosure made of G20 cast iron, stainless steel transmission and gear driving shafts, self-lubricating technopolymer gears and driving bushes.
- All materials and components used are wear resistant and guarantee protection of the unit against water and dust.

OPTIONS


- Revolution ratios from 1:15 to 1:499, achieved by combining different secondary output stages.
- Snap action switches with 1NO+1NC contacts.
- It can be equipped with a cam set with 2, 3 or 4 switches.
- Available with flange for direct coupling to the motor.
- Available with direct control switches to enable direct action on the motor.

CERTIFICATIONS

- CE marking.
- Atex certification EN 60079-0:2009, EN 60079-1:2007, EN 60079-31:2009.
- Conformity to Standards IECEx IEC 60079-0:2011, IEC 60079-1:2007-04 and IEC 60079-31:2008.

Fill in the "request form" for accurate product configuration.

CERTIFICATIONS

| | |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Conformity to Atex Standards | EN 60079-0:2009 Explosive atmospheres - Equipment - General requirements |
| | EN 60079-1:2007 Explosive atmospheres - Equipment protection by flameproof enclosures "d" |
| | EN 60079-31:2009 Explosive atmospheres - Equipment dust ignition protection by enclosure "t" |
| Conformity to IECEx Standards | IEC 60079-0:2011 Explosive atmospheres - Equipment - General requirements |
| | IEC 60079-1:2007-04 Explosive atmospheres - Equipment protection by flameproof enclosures "d" |
| | IEC 60079-31:2008: Explosive atmospheres - Equipment dust ignition protection by enclosure "t" |
| Atex Certification | INERIS 13ATEX0020X |
| IECEX Certification | IECEX INE 13.0051X |
| Certification for equipment Group I, IIA, IIB and IIC with the following marks* | MINING: I M2 Ex d I Mb (ATEX) Ex d I Mb (IECEX) |
| | GAS Zone 1 and 2: II2G Ex d IIB T6 Gb or Ex d IIC T6 Gb (ATEX) Ex d IIB T6 or Ex d IIC T6 Gb (IECEX) |
| | DUST Zone 21 and 22: II2D Ex tb IIIC T85°C Db IP66 (ATEX) Ex tb IIC T85°C Db IP66 (IECEX) |
| | GAS & DUST: II2GD Ex d IIB or IIC T6 Gb Ex tb IIC T85°C Db IP66 |
| Conformity to Community Directives | 2014/35/UE Low Voltage Directive |
| | 2006/42/CE Machinery Directive |
| Conformity to CE Standards | EN 60204-1 Safety of machinery - Electrical equipment of machines |
| | EN 60204-32 Safety of machinery - Electrical equipment of machines - Requirements for hoisting machines |
| | EN 60947-1 Low-voltage switchgear and controlgear |
| | EN 60947-5-1 Low-voltage switchgear and controlgear - Control circuit devices and switching elements - Electromechanical control circuit devices |
| | EN 60529 Degrees of protection provided by enclosures |
| Markings and homologations | CE  IEC IECEX |

GENERAL SAFETY SPECIFICATIONS

| | |
|---------------------------|------------|
| Maximum supply voltage | 300 Vac |
| Maximum current intensity | 3 A |
| Maximum dissipated power | 2 Watt |
| Rated frequency | 50 / 60 Hz |

GENERAL TECHNICAL SPECIFICATIONS

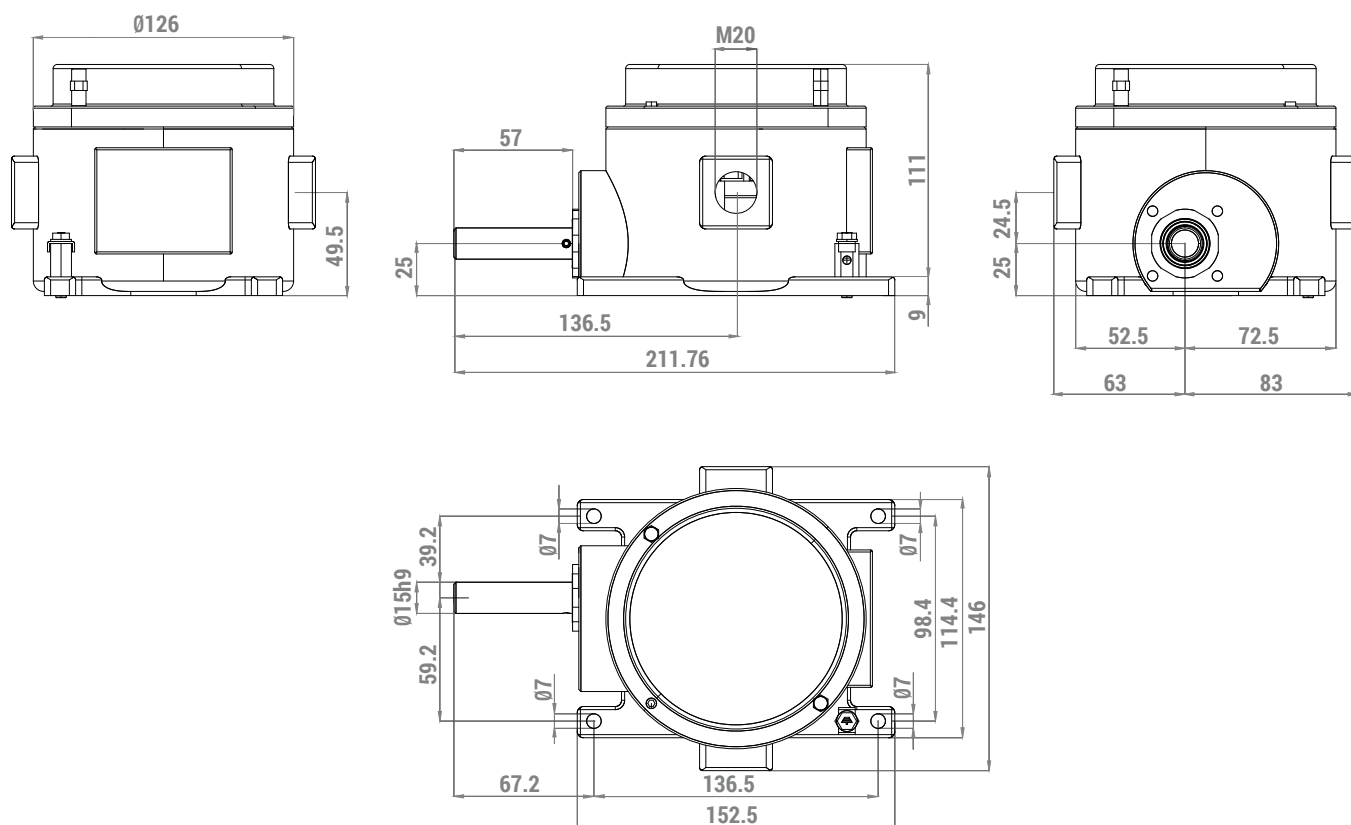
| | |
|---------------------------------|--------------------------------------|
| Operational ambient temperature | -50°C/+60°C |
| IP protection degree | IP 66 |
| Maximum rotation speed | 800 rev./min. |
| Cable entry | No. 2 M20x1.5 (standard) |
| | No. 2 M25x1.5 (available on request) |
| | No. 2 ½ NPT (available on request) |

* The user is responsible for choosing the proper protection type, group and maximum case temperature of the limit switch to be installed. The user is also responsible for the correct installation, connection to the electrical network and use and maintenance of all electrical devices.

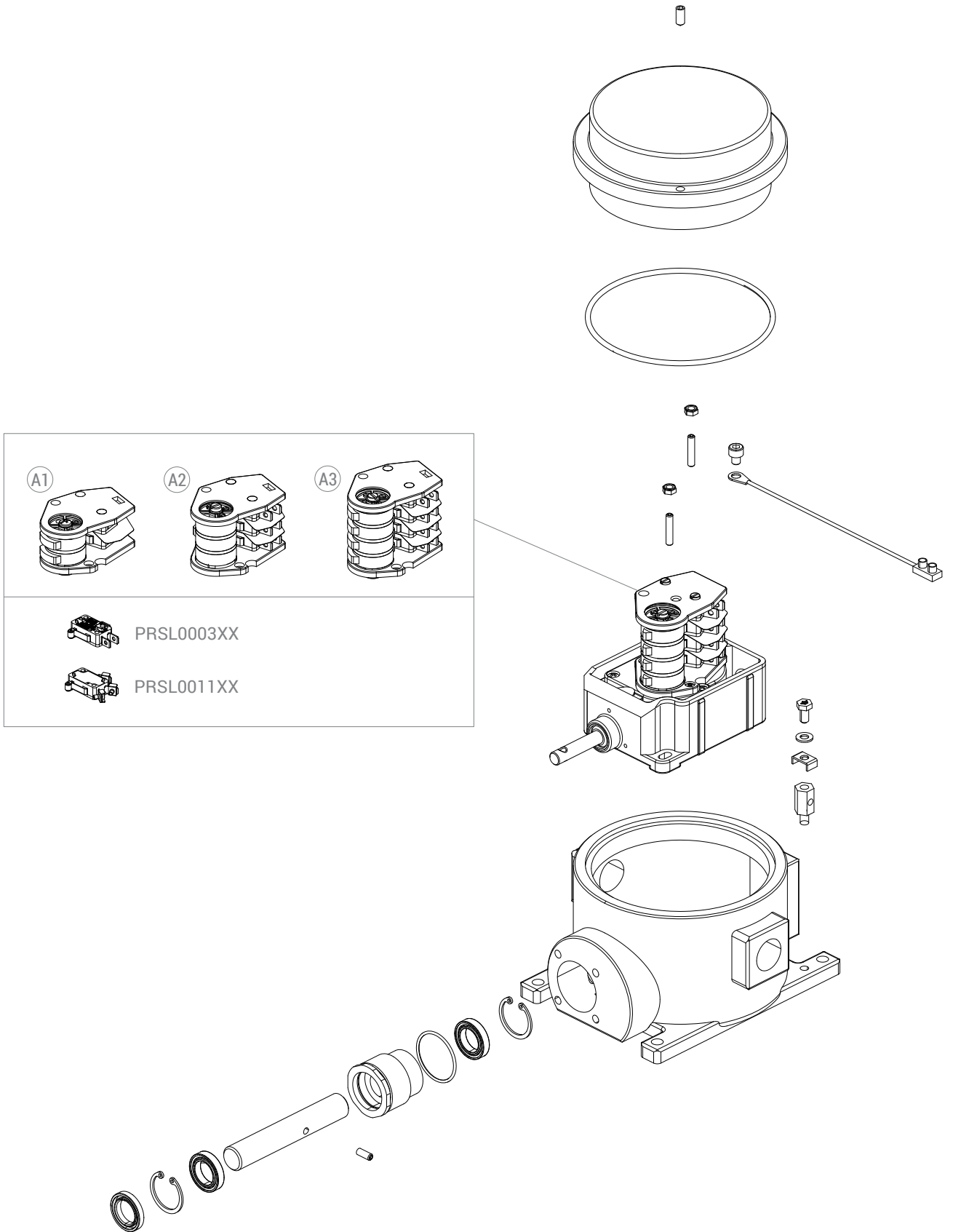
TECHNICAL SPECIFICATIONS OF THE SWITCHES

| Code | PRSL0003XX | PRSL0011XX |
|---------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------|
| Utilisation category | AC 15 | |
| Rated operational voltage | 250 Vac | |
| Rated operational current | 3 A | |
| Rated thermal current | 10 A | |
| Rated insulation voltage | 300 Vac | |
| Mechanical life | 1x10 ⁶ operations | |
| Connections | 6.3 mm Faston taps | Screw-type terminals |
| Wires | - | 2x0.5mm ² , 2x1.5 mm ² , 1x2.5 mm ² |
| Tightening torque | - | 0.5 Nm |
| Microswitch type | Single break, snap action | |
| Contacts | 1NO+1NC (All NC contacts are of the positive opening operation type ⚡) | 1NO+1NC |
| Scheme | | |

OVERALL DIMENSIONS (mm)



ASSEMBLY DRAWING






| | | |
|----|------------|----|
| A1 | A2 | A3 |
| | | |
| | PRSL0003XX | |
| | PRSL0011XX | |

Refer to the following table for descriptions of components: "Standard cam sets".






COMPONENTS

Standard cam sets

| Ref. | Drawing | No. and type of cams | No. and type of switches | Code |
|------|-----------------------------------------------------------------------------------|----------------------|--------------------------|-------------|
| A1 |  | 2 cams A | 2 PRSL0003XX switches | PRFC0008PEC |
| | | 2 cams C | 2 PRSL0003XX switches | PRFC0009PEC |
| A2 |  | 3 cams A | 3 PRSL0003XX switches | PRFC0004PEC |
| | | 3 cams C | 3 PRSL0003XX switches | PRFC0006PEC |
| A3 |  | 4 cams A | 4 PRSL0003XX switches | PRFC0202PEC |
| | | 4 cams C | 4 PRSL0003XX switches | PRFC0198PEC |

Other sets with 2, 3 or 4 switches are available on request.

Cam reference chart

| Cam | | | Switching angle | Code |
|-----|-------------------------------------------------------------------------------------|-------------|---------------------------------|------------|
| A |  | 1 point | $20.5^{\circ} \pm 0.5^{\circ}$ | PRSL7140PI |
| B |  | 10 points | $14.0^{\circ} \pm 0.5^{\circ}$ | PRSL7142PI |
| C |  | 60° sector | $78.0^{\circ} \pm 0.5^{\circ}$ | PRSL7141PI |
| E |  | 180° sector | $199.5^{\circ} \pm 0.5^{\circ}$ | PRSL7144PI |
| H |  | 335° sector | $344.0^{\circ} \pm 0.5^{\circ}$ | PRSL7143PI |

LIMITEX AG - REQUEST FORM FOR LIMIT SWITCH

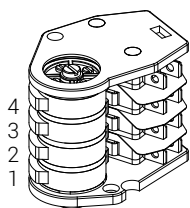
Instructions

- 1 Standard cam set:** write the code of the cam set required.
- 2 Customized cam set:** for non standard cam sets, fill in the scheme choosing the cams and the switches required.
Customized cams are available on request.
- 3 Revolution ratio:** write the required revolution ratio.
- 4 Cable entry:** tick the cable entry required.

Standard cam set 1

Cam set code

Customized cam set 2



| | |
|----------|-------------|
| Cam code | Switch code |
| 4 _____ | _____ |
| 3 _____ | _____ |
| 2 _____ | _____ |
| 1 _____ | _____ |

Revolution ratio 3

- | | |
|-------------------------------|-----------------------------------------------------------------------|
| <input type="checkbox"/> 1:15 | <input type="checkbox"/> 1:75 |
| <input type="checkbox"/> 1:20 | <input type="checkbox"/> 1:100 |
| <input type="checkbox"/> 1:25 | <input type="checkbox"/> 1:150 |
| <input type="checkbox"/> 1:50 | <input type="checkbox"/> 1: <input style="width: 50px;" type="text"/> |

Cable entry 4

- No. 2 M20x1,5 (standard)
- No. 2 M25x1,5 (available on request)
- No. 2 ½ NPT (available on request)

Remarks

1 Legend - Standard cam sets

| No. & type of switches | No. & type of cams | Code |
|------------------------|--------------------|-------------|
| 2 x PRSL0003XX | 2 cams A | PRFC0008PEC |
| | 2 cams C | PRFC0009PEC |
| 3 x PRSL0003XX | 3 cams A | PRFC0004PEC |
| | 3 cams C | PRFC0006PEC |
| 4 x PRSL0003XX | 4 cams A | PRFC0202PEC |
| | 4 cams C | PRFC0198PEC |

2 Legend - Standard cams

| Cam | Switching angle | Code |
|-----|--------------------------|------------|
| A | 1 point 20,5° ±0,5° | PRSL7140PI |
| B | 10 points 14,0° ±0,5° | PRSL7142PI |
| C | 60° sector 78,0° ±0,5° | PRSL7141PI |
| E | 180° sector 199,5° ±0,5° | PRSL7144PI |
| H | 335° sector 344,0° ±0,5° | PRSL7143PI |

Legend - Switches

| PRSL0003XX | PRSL0011XX |
|-------------|-------------|
| 1NO+1NC | 1NO+1NC |