

OSCAR

Rotary limit switch



Rotary limit switch used to control and measure the movement of industrial machines or the position of the nacelle or pitch angle of wind turbines. Oscar offers the flexibility of two different outputs with different revolution ratios and the possibility of installing different movement detection devices.

FEATURES

- It consists of a gear motor that transfers movement to the cams and the other movement detection devices through a primary input reduction stage (worm gear and helical toothed gear) and one or more secondary output stages.
- Accurate adjustment of cams by means of screws.
- Positive opening NC contacts for safety functions.
- Mechanical life of switches: up to 10 million operations.
- IP protection degree: Oscar is classified IP66, IP67 and IP69K.
- NEMA protection degree: Oscar is classified Type 4X*.
- Extreme temperature resistance: -53°C to +80°C.
- It features transmission and gear driving shafts made of stainless steel AISI 430F or AISI 303, worm gear transmission shaft rotating on ball bearings, self-lubricating technopolymer gears and driving bushes, technopolymer base and cover.
- All materials and components used are wear resistant and guarantee protection of the unit against water and dust.

OPTIONS

- Revolution ratios from 1:1 to 1:1550, achieved by combining different secondary output stages.
- Each of the two outputs can be set to a different revolution ratio to enable diversified control of the machine when special requirements need to be met.
- Snap action switches with 1NO+1NC contacts or slow action switches with 1 NC contact.
- It can be equipped with 2 cam sets (with up to 10 switches), potentiometers and encoders (alone or on top of cam sets with up to 3 switches), Egon 36-AL absolute encoders (alone or on top of cam sets with up to 2 switches) and Yankee absolute encoders (on top of cam sets with up to 4 switches).
- XL version featuring cover rise available with 2 cam sets (with up to 12 switches), potentiometers and encoders (alone or on top of cam sets with up to 5 switches), Egon 36-AL absolute

- encoders (alone or on top of cam sets with up to 4 switches) and Yankee absolute encoders (on top of cam sets with up to 6 switches).
- Dedicated cable clamps or connectors.
- Available with anti-moisture plug fitted to the base by means of a lock nut, to improve transpiration for the limit switch while maintaining protection against water.
- Available with flanges, pinion gears and couplings.
- Plates with universal adapter to replace existing systems.

INCREASED SAFETY SYSTEM "LIMA"

- Lima is designed to be integrated in equipment complying with the standard ISO 13849 on control system safety rules.
- Lima can be connected to a control unit or to a PLC to control the rotation of the limit switch shaft (thus of the equipments connected to it).
- Lima has two separate detection systems, without direct contact, using different technologies to ensure control redundancy.
- Lima allows the two detection systems to be wired by using two separate cables, through a 8-pin terminal board.

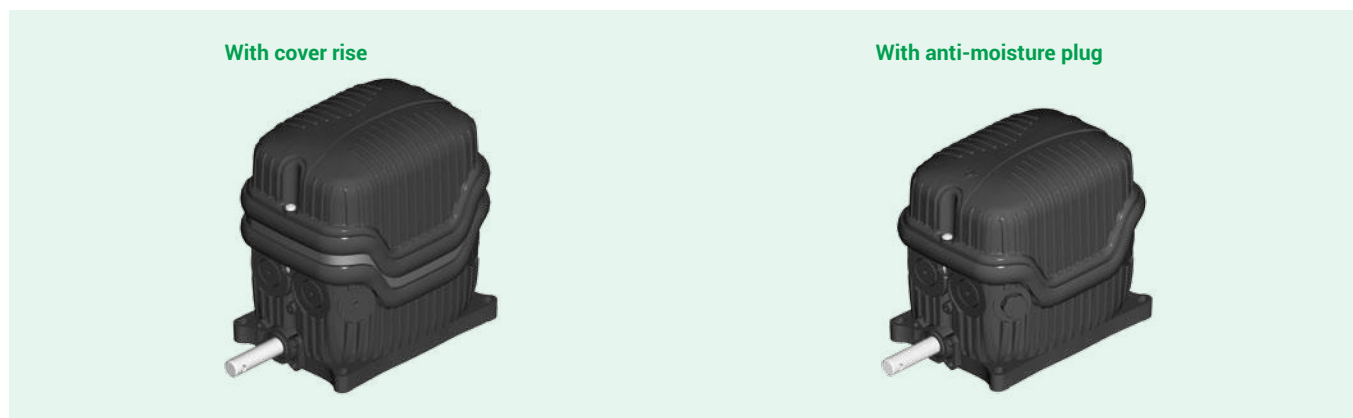
CERTIFICATIONS

- CE marking, cULus* marking and EAC* certification.
- Complying with accident prevention regulation BGV C 1 (only for Germany).
- HALT TEST (Highly Accelerated Life Test) passed, simulating conditions largely exceeding standard operating conditions.

Use the online configurator (<https://configuratore.terworld.com>) or fill in the "request form" for accurate product configuration.

* Not available on all versions.

POSSIBLE ASSEMBLIES



CERTIFICATIONS



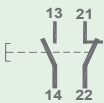


| | |
|------------------------------------|--|
| Conformity to Community Directives | 2014/35/UE Low Voltage Directive |
| | 2006/42/CE Machinery Directive |
| Conformity to CE Standards | EN 60204-1 Safety of machinery - Electrical equipment of machines |
| | EN 60204-32 Safety of machinery - Electrical 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 |
| Conformity to cULus Standards | EN 60529 Degrees of protection provided by enclosures |
| | CSA-C22.2 No 14-13 Industrial Control Equipment |
| | UL 508 Industrial Control Equipment |
| BGV C 1 | Regulations for the prevention of accidents BGV C 1 (only for Germany) |
| HALT TEST | Highly Accelerated Life Test, simulation of conditions largely exceeding the standard operating conditions (data available on request) |
| Markings and homologations | CE cULus* EAC* |

GENERAL TECHNICAL SPECIFICATIONS

| | |
|------------------------|--|
| Ambient temperature | Storage -53°C/+80°C |
| | Operational -53°C/+80°C |
| IP protection degree | IP 66/IP 67/IP 69K |
| | IP 66/IP 67 (version with cover rise) |
| NEMA protection degree | Type 4X* |
| Insulation category | Class II |
| Maximum rotation speed | 800 rpm (Output 1 >1:22, Output 2 >1:22 or =1:1) |
| | 200 rpm (Output 1 ≤1:22, Output 2 ≤1:22 or =1:1) |
| Cable entry | Cable clamp M20 - M16 (8 max) |
| Shafts | Stainless steel AISI 430F (version not cULus) |
| | Stainless steel AISI 303 |

* Not available on all versions.

TECHNICAL SPECIFICATIONS OF THE SWITCHES

| Code | PRSL0110XX | PRSL0111XX |
|----------------------------|--|--|
| 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 | 10x10 ⁶ operations | |
| Connections | Screw-type terminals | |
| Wires | 1x2.5 mm ² , 2x1.5 mm ² (UL (c)UL: use 60°C or 75°C copper (CU) conductors and stiff or flexible wire 14-22 AWG) | |
| Tightening torque | 0.5 Nm | |
| Microswitch type | Double break, snap action | Double break, slow action |
| Contacts | 1NO+1NC (All NC contacts are of the positive opening operation type ) | 1NC (All NC contacts are of the positive opening operation type ) |
| Scheme |  |  |
| Markings and homologations | CE  EAC | |

Switches PRSL0100XX available on request.

TECHNICAL SPECIFICATIONS OF THE POTENTIOMETERS

| Code of potentiometer with support | PA020001 | PA020002 |
|------------------------------------|------------------------------|-----------------------|
| Ohmic value | 10 kΩ | 10 kΩ mechanical stop |
| Resolution | Infinite | |
| Independent linearity | ±1% | |
| Life time | 10x10 ⁶ movements | |
| Operational ambient temperature | -55°C/+105°C | |
| Continuous rotation (without stop) | 360° | |
| Continuous rotation (with stop) | 333° ±5° | |
| Actual electrical angle | 310° ±5° | |
| Ohmic value tolerance | ±20% | |

| Code of potentiometer with support | PA020003 | PA020004 | PA020005 |
|--------------------------------------|-----------------------------|------------------|------------------|
| Ohmic value | 10 kΩ | 10 kΩ | 5 kΩ |
| Connections | 4 turrets | 3 turrets | 4 turrets |
| Independent linearity (over AEA -3°) | ≤ ±1% | ≤ ±0.35% | ≤ ±1% |
| Life time | 5x10 ⁶ movements | | |
| Operational ambient temperature | -55°C/+125°C | | |
| Mechanical angle | 360° continuous | | |
| Actual Electrical Angle (AEA) | 340° ±5° | | |
| Ohmic value tolerance | Max ± 20% at 20°C | Max ±10% at 20°C | Max ±20% at 20°C |

| Code of potentiometer with support | PA020006 | PA020007 | PA020008 |
|--------------------------------------|-----------------------------|----------|----------|
| Ohmic value | 4,7 kΩ | 10 kΩ | 2.2 kΩ |
| Independant linearity (ref. AEA -3°) | ±0.25% | | |
| Life time | 3x10 ⁶ movements | | |
| Operational ambient temperature | -55°C/+125°C | | |
| Mechanical angle | 360° continuous | | |
| Actual Electrical Angle (AEA) | 355°±5° | | |
| Ohmic value tolerance | ±5% | | |
| Temperature drift | < 50 PPM/°C | | |

| Code of potentiometer with support | PA020009 |
|------------------------------------|-------------------------------|
| Ohmic value | 2 kΩ |
| Resolution | Better then 0.008° |
| Linearity | ±0.075% |
| Independant linearity | ±0.075% |
| Life time | 100x10 ⁶ movements |
| Operational ambient temperature | -40°C/+100°C |
| Mechanical angle | 360° continuous |
| Actual electrical travel | 350° ±2° |
| Ohmic value tolerance | ±20% |

TECHNICAL SPECIFICATIONS OF THE ENCODERS

| Code with support | PA030001 | PA030002 |
|---------------------------------|--|-----------------|
| Resolution | 36 pulses/rev. | 150 pulses/rev. |
| Operational ambient temperature | -40°C/+85°C | |
| Code | Incremental | |
| Supply voltage | 4.5 Vdc min. to 30 Vdc max. (35 mA max. - no load) | |
| Output voltage | Low: 500 mV max. at 10 mA High: (Vin - 0.6) at -10 mA (Vin - 1.3) at -25 mA | |
| Output current | 25 mA max. load per output channel | |
| Output format | Two channel (A, B) quadrature with Index (Z) | |
| Phase sense | A leads B clockwise (CW) from the mounting end of the encoder | |
| Accuracy | +/- 0.8 arc-min. | |
| Outputs | Push pull | |
| Electrical protection | Protection against reverse polarity and output short-circuit | |

CERTIFICATIONS OF THE ABSOLUTE ENCODER EGON 36-AL

| | |
|------------------------------------|--|
| Conformity to Community Directives | 2014/35/UE Low Voltage Directive (LVD) |
| | 2006/42/CE Machinery Directive |
| Conformity to CE Standards | EN 60204-1 Safety of machinery - Electrical equipment of 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 |
| | EN 61000-6-2 , EN 61000-6-4 , EN 61000-4-2 , EN 61000-4-3 , EN 61000-4-4 , EN 61000-4-5 , EN 61000-4-6 Electromagnetic compatibility |
| Markings and homologations | CE pending |


GENERAL TECHNICAL SPECIFICATIONS OF THE ABSOLUTE ENCODER EGON 36-AL

| | |
|----------------------|-------------------------|
| Ambient temperature | Storage -30°C/+80°C |
| | Operational -30°C/+80°C |
| IP protection degree | IP42 |
| Shaft diameter | 6 mm |

ELECTRICAL SPECIFICATIONS OF THE ABSOLUTE ENCODER EGON 36-AL

| | |
|--|-------------------------------------|
| Power supply | 12...30 Vdc |
| | Current 4...20 mA |
| Analog output | Voltage 1...5 V |
| | Voltage 2...10 V |
| Consumption | 35 mA simple version |
| | 55 mA redundant version |
| Single-turn resolution | 12 bit (4096 points for revolution) |
| Protection against input/output over-current | Yes |
| Protection against input/output over-voltage | Yes |
| Accuracy | ± 0.5% |
| Linearity | ± 0.25% |
| Redundancy | 2 offset outputs (analog) |

CERTIFICATIONS OF THE ABSOLUTE ENCODER YANKEE

| | |
|------------------------------------|--|
| Conformity to Community Directives | 2014/30/UE Electromagnetic Compatibility (EMC) Directive |
| | 2006/42/CE Machinery Directive |
| | 2014/35/UE Low Voltage Directive (LVD) |
| Conformity to CE Standards | EN 61326-1 Electrical equipment for measurement, control and laboratory use - EMC requirements |
| | EN 60529 Degrees of protection provided by enclosures |
| Conformity to cULus Standards | CSA-C22.2 No 14-13 Industrial Control Equipment |
| | UL 508 Industrial Control Equipment |
| Markings and homologations | CE  |


GENERAL TECHNICAL SPECIFICATIONS OF THE ABSOLUTE ENCODER YANKEE

| | |
|------------------------|-------------------------|
| Ambient temperature | Storage -40°C/+80°C |
| | Operational -40°C/+80°C |
| IP protection degree | IP 20 |
| Free rotation | 360° |
| Maximum rotation speed | 800 rpm |

ELECTRICAL SPECIFICATIONS OF THE ABSOLUTE ENCODER YANKEE

| Code | PA01AA01 | PA01AB01 | PA01AC01 |
|-------------------------------------|--|------------------|---------------|
| Analog output | Current 4 ÷ 20 mA | Voltage 0 ÷ 10 V | PWM 0 ÷ 100 % |
| Power supply | 12 ÷ 48 Vdc/12 ÷ 48 Vac | | |
| Protection against reverse polarity | Yes | | |
| Absorption | 50 mA | | |
| Resolution | 10 bit | | |
| Linearity | +/-0.5° | | |
| Max. hysteresis | 0.1° | | |
| Zero Point setting | Through button/wire | | |
| Signal increment direction | CW (standard)/CCW (on request) | | |
| Connections | Terminal board | | |
| Terminal wires | 0.14 mm ² - 1.5 mm ² | | |
| Terminal tightening torque | 0.22 Nm - 0.25 Nm | | |

CERTIFICATIONS OF OSCAR WITH INCREASED SAFETY SYSTEM "LIMA"

| | |
|------------------------------------|--|
| 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  (pending) |

GENERAL TECHNICAL SPECIFICATIONS OF OSCAR WITH LIMA

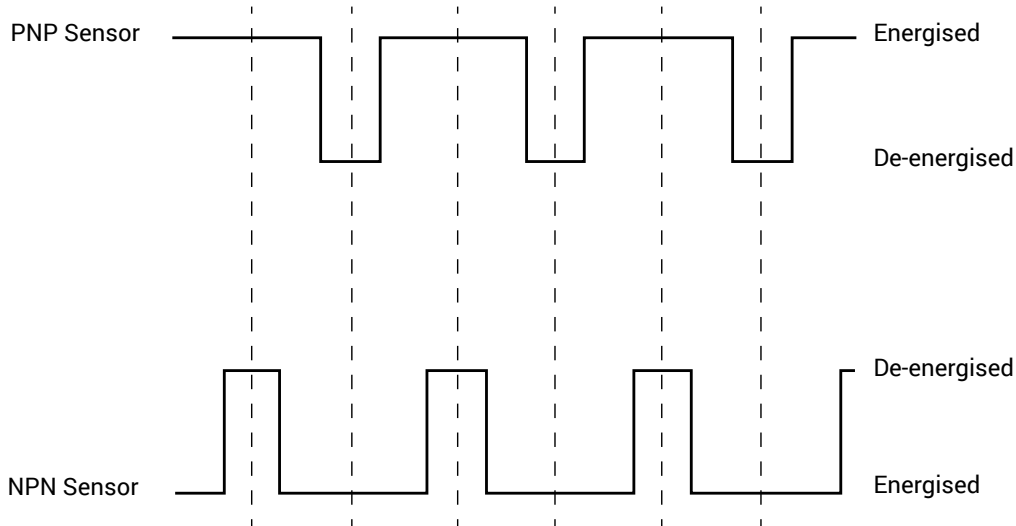
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|------------------------|---|
| Ambient temperature | Storage -25°C/+75°C |
| | Operational -25°C/+75°C |
| IP protection degree | IP 66/IP 67/IP 69K |
| | IP 66/IP 67 (version with cover rise) |
| NEMA protection degree | Type 4X |
| Insulation category | Class II |
| Maximum rotation speed | 800 rpm (Output 1 >1:22, Output 2 >1:22 or =1:1) |
| | 200 rpm (Output 1 ≤1:22, Output 2 ≤1:22 or =1:1) |
| Cable entry | Cable clamp M20 - M16 (8 max) |
| Sensor connection | Self-lifting screw terminal board - 8 PIN (4 for each sensor) |

OUTPUT TECHNICAL SPECIFICATIONS OF OSCAR WITH LIMA

| | |
|-----------------------------------|----------------------------|
| Resolution Signal | 5 pulses/rev. |
| Supply amplitude Range | 10-30 Vdc |
| Switching Frequency max. | 66.6 Hz |
| Current Consumption max (no load) | 12 mA (for each sensor) |
| Voltage Drop Vd | < 2 Vdc |
| Output Current | < 100 mA (for each sensor) |
| Short Circuit Protection | Yes |
| Reverse Polarity Protection | Yes |
| MTTF(d) PNP sensor | 533 years |
| MTTF(d) NPN sensor | 626 years |

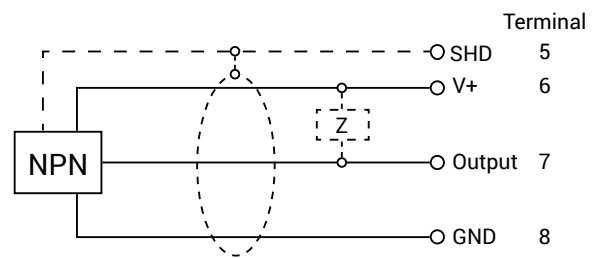
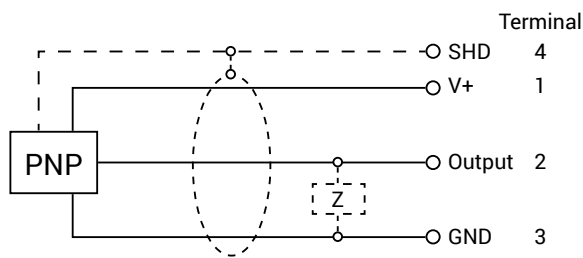
OUTPUT SIGNAL OF OSCAR WITH LIMA

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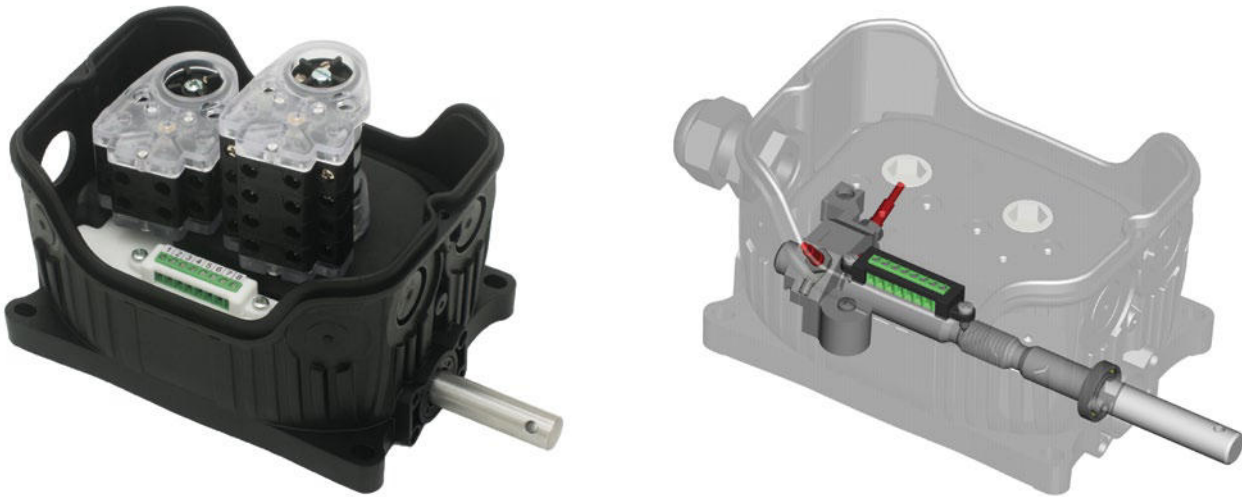


CONNECTION DIAGRAM OF LIMA

| Sensor | Terminal | Function | Value |
|--------|----------|---------------|-----------|
| PNP | 1 | V+ sensor | 10-30 Vdc |
| | 2 | Output sensor | PNP |
| | 3 | GND sensor | - |
| | 4 | SHD sensor | - |
| NPN | 5 | SHD sensor | - |
| | 6 | V+ sensor | 10-30 Vdc |
| | 7 | Output sensor | NPN |
| | 8 | GND sensor | - |



EXAMPLE OF USE OF OSCAR LIMIT SWITCH WITH INCREASED SAFETY SYSTEM "LIMA"



Oscar limit switch equipped with Lima can be used, just like standard limit switches, for material handling in construction plants (e.g. to control up/down lifting of winches), with the additional possibility to control the limit switch shaft rotation when using Lima connected to a special control unit designed to manage the following functions:

- **Load drop**

Type of function: inhibition.

Trigger event: the control system verifies that the limit switch shaft speed does not exceed the selected set point speed.

Reaction: brake prompt closure, preventing load to drop free.

Safety function: Lima generates a signal depending on the limit switch shaft speed; the control unit compares the measured speed with the selected set point value.

If the measured speed exceeds the set-point value by a selected threshold, the control unit stops the motor and activates the brake.

- **Standstill shaft**

Type of function: inhibition.

Trigger event: the limit switch shaft speed is greater than 0, but no valid speed command has been entered.

Reaction: brake prompt closure.

Safety function: the control system verifies that the limit switches shaft speed is equal to 0 when a valid speed set-point is not entered.

- **Shaft in motion**

Type of function: inhibition.

Trigger event: the measured limit switch shaft speed is 0, but a valid speed command has been entered.

Reaction: brake prompt closure.

Safety function: the control system verifies that the limit switches shaft speed is greater than 0 when a valid speed set-point is entered.

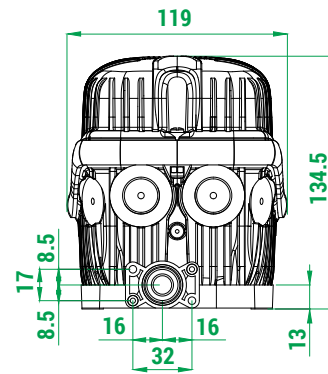
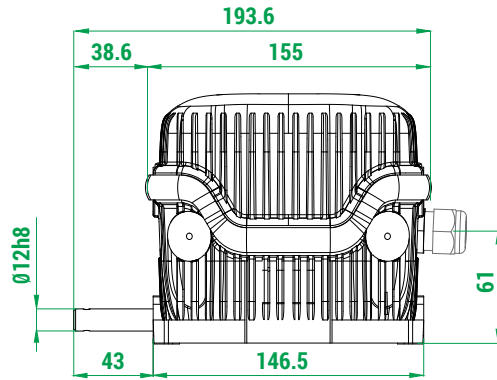
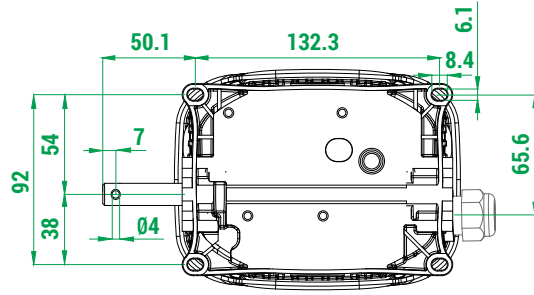
This function is used to check that the limit switch shaft is coupled to the gear unit, therefore detecting any shaft or limit switch connection system break.

NOTE: The function of Lima is that of providing a signal depending on the limit switch shaft speed. The above example is intended to describe a possible application of the limit switch Oscar equipped with Lima.

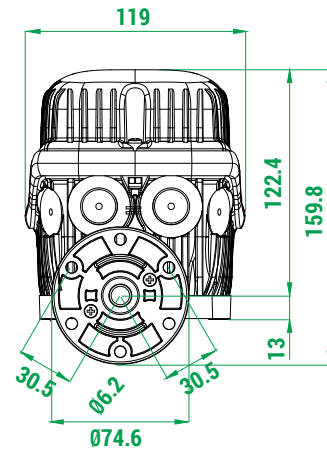
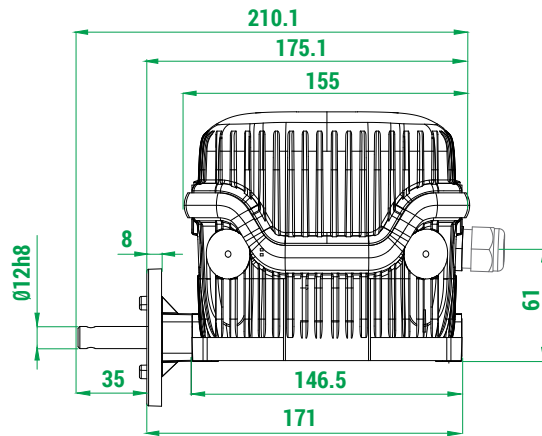
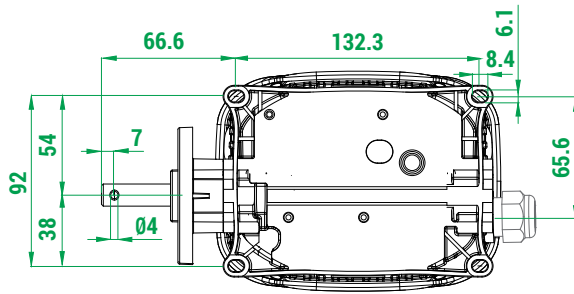
OVERALL DIMENSIONS (mm)

Standard

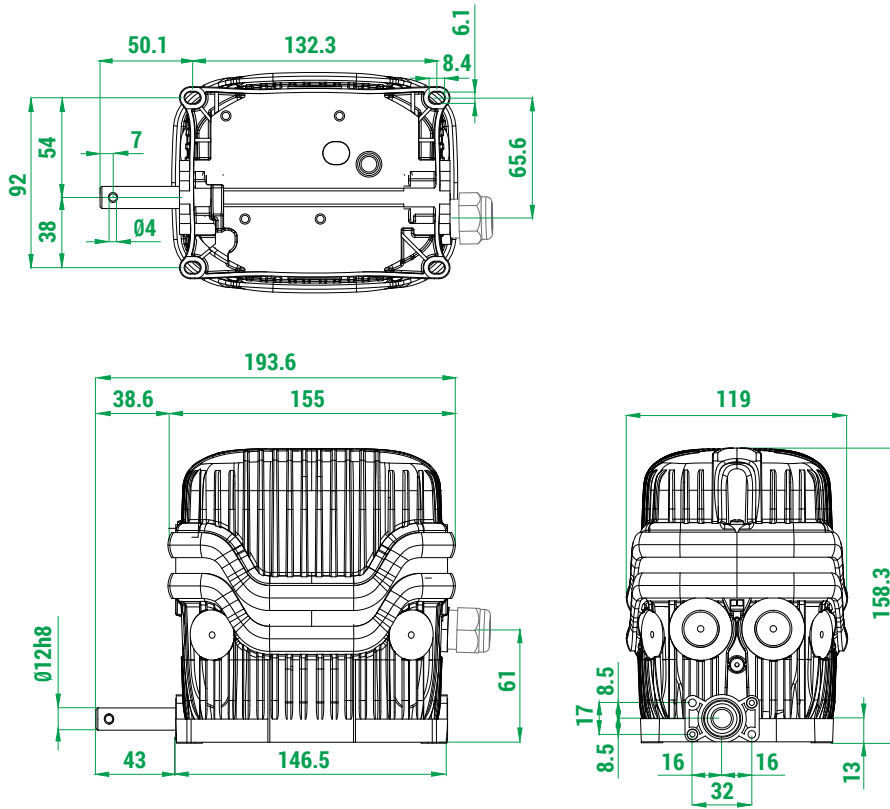
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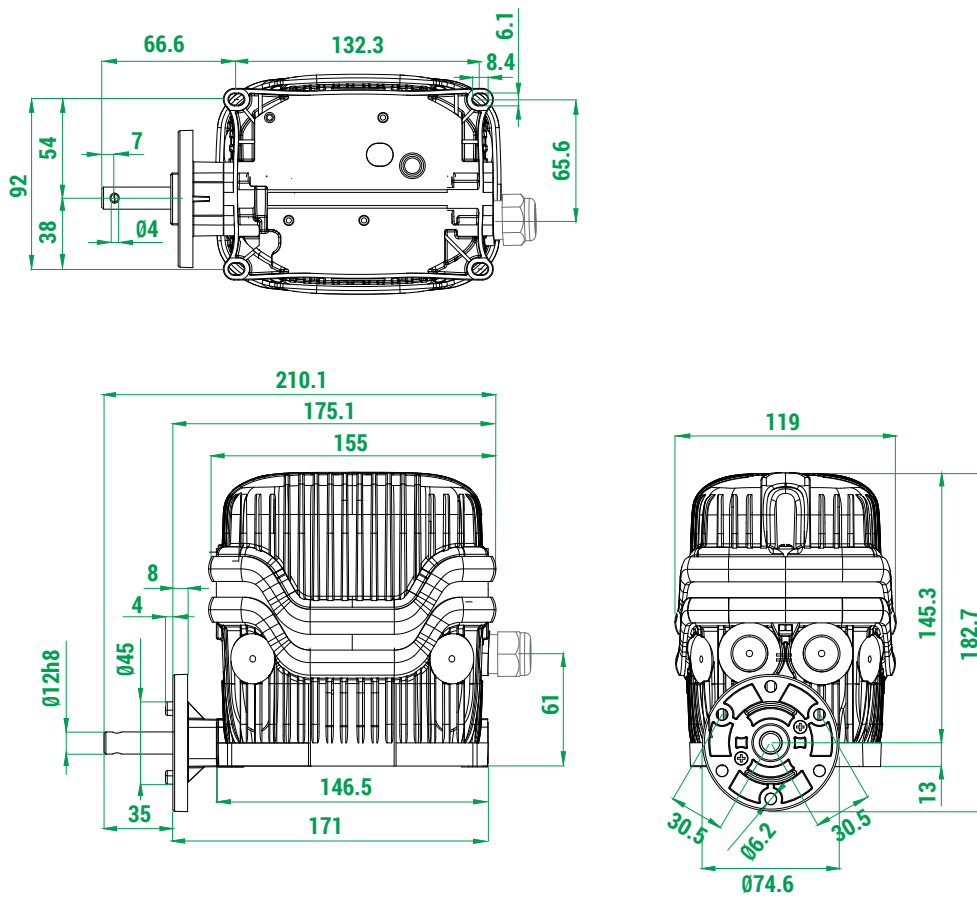
With flange




Oscar XL with cover rise





Oscar XL with cover rise and flange





STANDARD LIMIT SWITCHES

Standard limit switches are equipped with cams PRSL7194PI  and shafts made of stainless steel AISI 430F. Standard limit switches are not cULus certified.

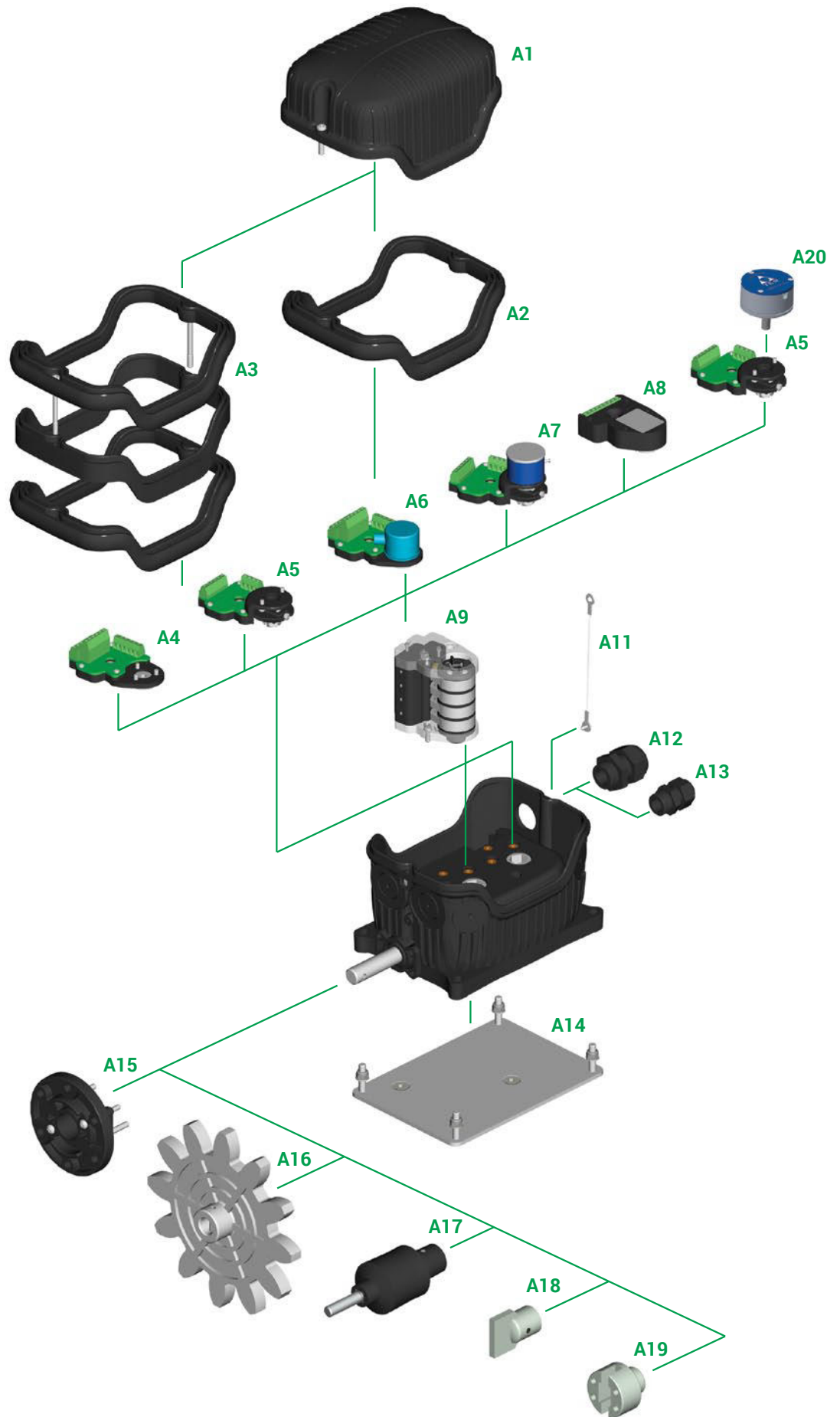
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| Output 1 rated revolution ratio | Real revolution ratio | Output 2 rated revolution ratio | No. of cams and switches | Switches | |
|--|-----------------------------|--|-----------------------------|---|---|
| | | | | PRSL0110XX 1NO+1NC | PRSL0111XX 1NC |
| | | | |  |  |
| | | | | Code | Code |
| 1:1 | 1:1 | 1:1 | 2 | PFC9067L0001007 | PFC9067L0001013 |
| | | 1:1 | 4 | PFC9067L0001008 | PFC9067L0001012 |
| | | 1:1 | 4+2 | PFC9067L0001010 | PFC9067L0001014 |
| | | 1:1 | 4+4 | PFC9067L0001011 | PFC9067L0001015 |
| 1:5 | 1:5.83 | 1:5 | 2 | PFC9067L0005007 | PFC9067L0005008 |
| | | 1:1 | 2 | PFC9067L0005009 | PFC9067L0005010 |
| | | 1:5 | 4 | PFC9067L0005011 | PFC9067L0005012 |
| | | 1:1 | 4 | PFC9067L0005013 | PFC9067L0005014 |
| | | 1:5 | 4+2 | PFC9067L0005015 | PFC9067L0005016 |
| | | 1:5 | 4+4 | PFC9067L0005017 | PFC9067L0005018 |
| 1:10 | 1:11.66 | 1:10 | 2 | PFC9067L0011002 | PFC9067L0011003 |
| | | 1:1 | 2 | PFC9067L0011004 | PFC9067L0011005 |
| | | 1:10 | 4 | PFC9067L0011006 | PFC9067L0011007 |
| | | 1:1 | 4 | PFC9067L0011008 | PFC9067L0011009 |
| | | 1:10 | 4+2 | PFC9067L0011010 | PFC9067L0011011 |
| | | 1:10 | 4+4 | PFC9067L0011012 | PFC9067L0011013 |
| 1:15 | 1:17 | 1:15 | 2 | PFC9067L0017005 | PFC9067L0017006 |
| | | 1:1 | 2 | PFC9067L0017007 | PFC9067L0017008 |
| | | 1:15 | 4 | PFC9067L0017009 | PFC9067L0017010 |
| | | 1:1 | 4 | PFC9067L0017011 | PFC9067L0017012 |
| | | 1:15 | 4+2 | PFC9067L0017013 | PFC9067L0017014 |
| | | 1:15 | 4+4 | PFC9067L0017015 | PFC9067L0017016 |
| 1:20 | 1:22.15 | 1:20 | 2 | PFC9067L0022018 | PFC9067L0022019 |
| | | 1:1 | 2 | PFC9067L0022020 | PFC9067L0022022 |
| | | 1:20 | 4 | PFC9067L0022023 | PFC9067L0022024 |
| | | 1:1 | 4 | PFC9067L0022026 | PFC9067L0022021 |
| | | 1:20 | 4+2 | PFC9067L0022027 | PFC9067L0022028 |
| | | 1:20 | 4+4 | PFC9067L0022029 | PFC9067L0022030 |
| 1:25 | 1:31.00 | 1:25 | 2 | PFC9067L0031032 | PFC9067L0031033 |
| | | 1:1 | 2 | PFC9067L0031034 | PFC9067L0031035 |
| | | 1:25 | 4 | PFC9067L0031031 | PFC9067L0031036 |
| | | 1:1 | 4 | PFC9067L0031037 | PFC9067L0031038 |
| | | 1:25 | 4+2 | PFC9067L0031039 | PFC9067L0031040 |
| | | 1:25 | 4+4 | PFC9067L0031041 | PFC9067L0031042 |
| 1:50 | 1:62 | 1:50 | 2 | PFC9067L0062004 | PFC9067L0062014 |
| | | 1:1 | 2 | PFC9067L0062012 | PFC9067L0062015 |
| | | 1:50 | 4 | PFC9067L0062005 | PFC9067L0062016 |
| | | 1:1 | 4 | PFC9067L0062013 | PFC9067L0062017 |
| | | 1:50 | 4+2 | PFC9067L0062006 | PFC9067L0062021 |
| | | 1:50 | 4+4 | PFC9067L0062007 | PFC9067L0062022 |

| Output 1 rated revolution ratio | Real revolution ratio | Output 2 rated revolution ratio | No. of cams and switches | Switches | |
|---------------------------------|-----------------------|---------------------------------|--------------------------|---|---|
| | | | | PRSL0110XX 1NO+1NC | PRSL0111XX 1NC |
| | | | |  |  |
| Code | Code | | | | |
| 1:70 | 1:73.63 | 1:70 | 2 | PFC9067L0073004 | PFC9067L0073009 |
| | | 1:1 | 2 | PFC9067L0073005 | PFC9067L0073010 |
| | | 1:70 | 4 | PFC9067L0073003 | PFC9067L0073011 |
| | | 1:1 | 4 | PFC9067L0073006 | PFC9067L0073012 |
| | | 1:70 | 4+2 | PFC9067L0073007 | PFC9067L0073013 |
| | | 1:70 | 4+4 | PFC9067L0073008 | PFC9067L0073014 |
| 1:100 | 1:107 | 1:100 | 2 | PFC9067L0107014 | PFC9067L0107025 |
| | | 1:1 | 2 | PFC9067L0107019 | PFC9067L0107026 |
| | | 1:100 | 4 | PFC9067L0107015 | PFC9067L0107004 |
| | | 1:1 | 4 | PFC9067L0107020 | PFC9067L0107018 |
| | | 1:100 | 4+2 | PFC9067L0107016 | PFC9067L0107027 |
| | | 1:100 | 4+4 | PFC9067L0107017 | PFC9067L0107028 |
| 1:150 | 1:156.50 | 1:150 | 2 | PFC9067L0156004 | PFC9067L0156011 |
| | | 1:1 | 2 | PFC9067L0156007 | PFC9067L0156012 |
| | | 1:150 | 4 | PFC9067L0156005 | PFC9067L0156013 |
| | | 1:1 | 4 | PFC9067L0156008 | PFC9067L0156014 |
| | | 1:150 | 4+2 | PFC9067L0156006 | PFC9067L0156015 |
| | | 1:150 | 4+4 | PFC9067L0156009 | PFC9067L0156016 |
| 1:200 | 1:214.20 | 1:200 | 2 | PFC9067L0214004 | PFC9067L0214010 |
| | | 1:1 | 2 | PFC9067L0214006 | PFC9067L0214011 |
| | | 1:200 | 4 | PFC9067L0214005 | PFC9067L0214002 |
| | | 1:1 | 4 | PFC9067L0214007 | PFC9067L0214012 |
| | | 1:200 | 4+2 | PFC9067L0214008 | PFC9067L0214013 |
| | | 1:200 | 4+4 | PFC9067L0214009 | PFC9067L0214014 |
| 1:250 | 1:254.30 | 1:250 | 2 | PFC9067L0254004 | PFC9067L0254014 |
| | | 1:1 | 2 | PFC9067L0254007 | PFC9067L0254015 |
| | | 1:250 | 4 | PFC9067L0254005 | PFC9067L0254016 |
| | | 1:1 | 4 | PFC9067L0254008 | PFC9067L0254017 |
| | | 1:250 | 4+2 | PFC9067L0254009 | PFC9067L0254018 |
| | | 1:250 | 4+4 | PFC9067L0254010 | PFC9067L0254019 |
| 1:300 | 1:313 | 1:300 | 2 | PFC9067L0313023 | PFC9067L0313030 |
| | | 1:1 | 2 | PFC9067L0313025 | PFC9067L0313031 |
| | | 1:300 | 4 | PFC9067L0313024 | PFC9067L0313032 |
| | | 1:1 | 4 | PFC9067L0313026 | PFC9067L0313033 |
| | | 1:300 | 4+2 | PFC9067L0313027 | PFC9067L0313034 |
| | | 1:300 | 4+4 | PFC9067L0313028 | PFC9067L0313035 |
| 1:450 | 1:471.20 | 1:450 | 2 | PFC9067L0471002 | PFC9067L0471008 |
| | | 1:1 | 2 | PFC9067L0471003 | PFC9067L0471009 |
| | | 1:450 | 4 | PFC9067L0471004 | PFC9067L0471001 |
| | | 1:1 | 4 | PFC9067L0471005 | PFC9067L0471010 |
| | | 1:450 | 4+2 | PFC9067L0471006 | PFC9067L0471011 |
| | | 1:450 | 4+4 | PFC9067L0471007 | PFC9067L0471012 |

ASSEMBLY DRAWING

4



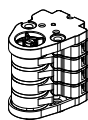
Refer to the following tables for descriptions of components: "Standard cam sets", "Potentiometers and encoders" and "Accessories".

COMPONENTS

Standard cam sets







| Ref. | Drawing | No. and type of cams | No. and type of switches | Code |
|------|---------|----------------------|--------------------------|----------|
| | | 2 cams A | 2 PRSL0110XX switches | FCL20001 |
| | | 2 cams A | 2 PRSL0111XX switches | FCL20002 |
| | | Cams A+C | 2 PRSL0110XX switches | FCL20003 |
| | | Cams A+C | 2 PRSL0111XX switches | FCL20004 |
| | | 2 cams C | 2 PRSL0110XX switches | FCL20005 |
| | | 2 cams C | 2 PRSL0111XX switches | FCL20006 |
| | | Cams D+D+B+F | 4 PRSL0110XX switches | FCL40001 |
| | | Cams D+D+B+F | 4 PRSL0111XX switches | FCL40002 |
| | | 4 cams A | 4 PRSL0110XX switches | FCL40003 |
| | | 4 cams A | 4 PRSL0111XX switches | FCL40004 |
| | | Cams A+A+C+C | 4 PRSL0110XX switches | FCL40005 |
| | | Cams A+A+C+C | 4 PRSL0111XX switches | FCL40006 |
| | | 4 cams C | 4 PRSL0110XX switches | FCL40007 |
| | | 4 cams C | 4 PRSL0111XX switches | FCL40008 |
| | | Cams C+C+C+E | 4 PRSL0110XX switches | FCL40009 |
| | | Cams C+C+C+E | 4 PRSL0111XX switches | FCL40010 |
| | | Cams A+A+E+E | 4 PRSL0110XX switches | FCL40011 |
| | | Cams A+A+E+E | 4 PRSL0111XX switches | FCL40012 |
| | | 5 cams A | 5 PRSL0110XX switches | FCL50006 |
| | | 5 cams A | 5 PRSL0111XX switches | FCL50005 |
| | | 5 cams C | 5 PRSL0110XX switches | FCL50001 |
| | | 5 cams C | 5 PRSL0111XX switches | FCL50010 |
| | | 6 cams A | 6 PRSL0110XX switches | FCL60003 |
| | | 6 cams A | 6 PRSL0111XX switches | FCL60006 |
| | | 6 cams C | 6 PRSL0110XX switches | FCL60001 |
| | | 6 cams C | 6 PRSL0111XX switches | FCL60010 |

A9










Other sets with 2/3/4/5 or 6 cams/switches are available on request.

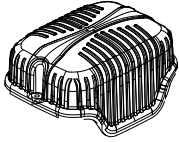
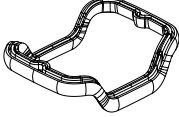
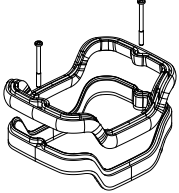



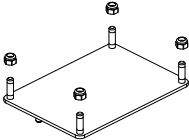
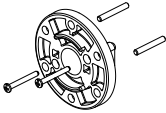




Cam reference chart

| Cam | | | Code for PRSL0110XX switches | Switching angle with PRSL0110XX | Code for PRSL0111XX switches | Switching angle with PRSL0111XX |
|-----|---|-------------|------------------------------|---------------------------------|------------------------------|---------------------------------|
| A |  | 1 point | PRSL7194PI | 21.5° ±0.5° | PRSL7194PI | 23.0° ±0.5° |
| B |  | 10 points | PRSL7193PI | 21.5° ±0.5° | PRSL7193PI | 23.0° ±0.5° |
| C |  | 60° sector | PRSL7195PI | 82.0° ±0.5° | PRSL7195PI | 86.0° ±0.5° |
| D |  | 72° sector | PRSL7196PI | 94.0° ±0.5° | PRSL7196PI | 97.5° ±0.5° |
| E |  | 180° sector | PRSL7191PI | 204.5° ±0.5° | PRSL7191PI | 203.0° ±0.5° |
| F |  | 305° sector | PRSL7192PI | 328.5° ±0.5° | PRSL7192PI | 327.0° ±0.5° |

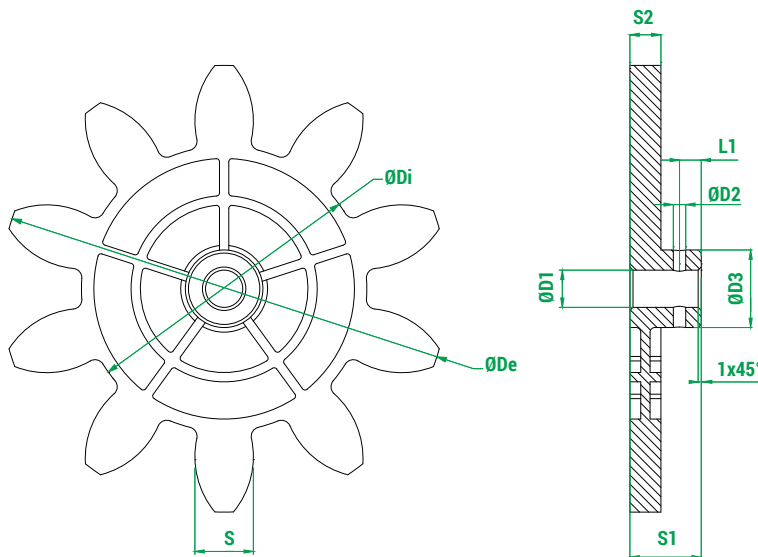
Potentiometers and encoders

| Ref. | Drawing | Description | Code |
|------|---|--|---|
| A4 |  | Support for encoder | PA030000 |
| A5 |  | Support for potentiometer | PA020000 |
| A6 |  | Encoder 36 pulses./rev. with support | PA030001 |
| | | Encoder 150 pulses./rev. with support | PA030002 |
| A7 |  | Potentiometer 10 kΩ with support | PA020001 |
| | | Potentiometer 10 kΩ mechanical stop with support | PA020002 |
| | | Potentiometer 10 kΩ ±10% 4 pins with support | PA020003 |
| | | Potentiometer 10 kΩ ±10% 3 pins with support | PA020004 |
| | | Potentiometer 5 kΩ ±10% with support | PA020005 |
| | | Potentiometer 4.7 kΩ with support | PA020006 |
| | | Potentiometer 10 kΩ with support | PA020007 |
| A8 |  | Potentiometer 2.2 kΩ with support | PA020008 |
| | | Potentiometer 2KΩ with support | PA020009 |
| | | Absolute encoder Yankee - current output | PA01AA01 |
| A8 |  | Absolute encoder Yankee - voltage output | PA01AB01 |
| | | Absolute encoder Yankee - PWM output | PA01AC01 |
| A20 |  | Absolute encoder Egon 36-AL | F19XXXXXXX (Use the form on page 23 to generate codes) |

Accessories

| Ref. | Drawing | Description | Code |
|------|---|---|------------------------|
| A1 |  | Cover with screws | PA090016 |
| A2 |  | Tightening rubber | PRGU1510PE |
| A3 |  | Cover rise with tightening rubber and screws | PRSL0703PI |
| A11 |  | Cover holding wire + screw (bag with 10 pieces) | PRSL0358PI |
| A12 |  | Cable clamp M20x1.5 | PRPS0063PE |
| A13 |  | Cable clamp M16 | PRPS0062PE |
| A14 |  | Fixing plate | PRSL0729PI |
| A15 |  | Flange with screws and pins | PRSL0356PI |
| A16 |  | Pinion gear | See pinion gear tables |
| A17 |  | Coupling with pin | PRSL0981PI |
| A18 |  | Male coupling with pin | PRSL0919PI |
| A19 |  | Female coupling with pin | PRSL0920PI |

Moulded pinion gears



Legend

Z Number of teeth

M Module

Dp Primitive diameter

De External diameter

Di Internal diameter

a Addendum

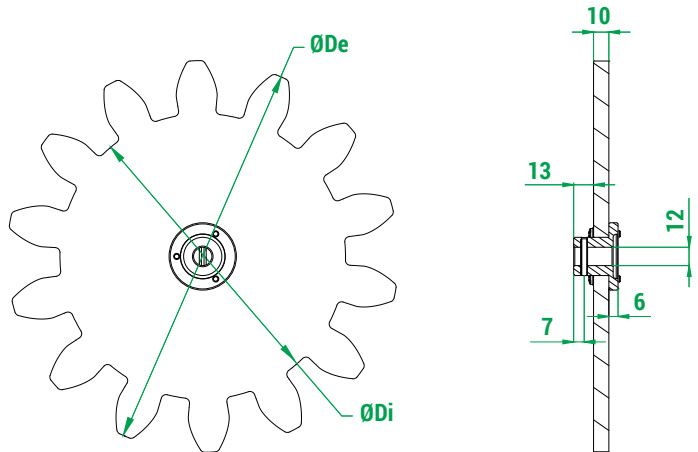
d Dedendum

Alpha Pressure angle

| Code | Z | M | Dp | De | Di | a | d | S | Alpha | D1 | D2 | D3 | S1 | S2 | L1 |
|------------|----|-------|--------|--------|--------|-------|-------|-------|-------|-------|------|-------|-------|-------|------|
| PRSL0915PI | 8 | 20.00 | 160.00 | 200.00 | 113.20 | 20.00 | 23.40 | 31.41 | 20.00 | 12.00 | 4.00 | 24.00 | 23.00 | 10.00 | 7.00 |
| PRSL0912PI | 10 | 12.00 | 120.00 | 144.00 | 92.00 | 12.00 | 14.00 | 18.85 | 20.00 | 12.00 | 4.00 | 25.00 | 23.00 | 10.00 | 7.00 |
| PRSL0913PI | 10 | 14.00 | 140.00 | 168.00 | 107.24 | 14.00 | 16.38 | 21.99 | 20.00 | 12.00 | 4.00 | 24.60 | 23.00 | 10.00 | 7.00 |
| PRSL0914PI | 10 | 16.00 | 160.00 | 192.00 | 122.67 | 16.00 | 18.67 | 25.13 | 20.00 | 12.00 | 4.00 | 24.00 | 23.00 | 10.00 | 7.00 |
| PRSL0917PI | 11 | 6.00 | 66.00 | 78.00 | 51.96 | 6.00 | 7.02 | 9.42 | 20.00 | 12.00 | 4.00 | 19.00 | 23.00 | 8.00 | 7.00 |
| PRSL0916PI | 12 | 5.00 | 60.00 | 70.00 | 48.30 | 5.00 | 5.83 | 7.85 | 20.00 | 12.00 | 4.00 | 20.00 | 23.00 | 8.00 | 7.00 |
| PRSL0918PI | 12 | 8.00 | 96.00 | 112.00 | 77.28 | 8.00 | 9.36 | 12.56 | 20.00 | 12.00 | 4.00 | 21.50 | 23.50 | 10.00 | 7.00 |
| PRSL0911PI | 12 | 10.00 | 120.00 | 140.00 | 96.67 | 10.00 | 11.67 | 15.71 | 20.00 | 12.00 | 4.00 | 25.00 | 23.50 | 10.00 | 7.00 |
| PRSL0944PI | 12 | 12.00 | 144.00 | 168.00 | 116.00 | 12.00 | 14.00 | 18.85 | 20.00 | 12.00 | 4.00 | 24.00 | 23.00 | 10.00 | 7.00 |

Measuring unit: mm.

Waterjet cut pinion gears



| Legend | |
|--------|--------------------|
| Z | Number of teeth |
| M | Module |
| Dp | Primitive diameter |
| De | External diameter |
| Di | Internal diameter |
| a | Addendum |
| d | Dedendum |
| Alpha | Pressure angle |

| Code | Z | M | Dp | De | Di | a | d | Alpha |
|------------|----|-------|--------|--------|--------|-------|-------|-------|
| PRSL0857PI | 8 | 18.00 | 144.00 | 180.00 | 102.00 | 18.00 | 21.00 | 20.00 |
| PRSL0855PI | 8 | 24.00 | 192.00 | 240.00 | 136.00 | 24.00 | 28.00 | 20.00 |
| PRSL0992PI | 9 | 10.00 | 90.00 | 110.00 | 66.67 | 10.00 | 11.67 | 20.00 |
| PRSL0879PI | 9 | 16.00 | 144.00 | 176.00 | 106.67 | 16.00 | 18.67 | 20.00 |
| PRSL0854PI | 9 | 18.00 | 162.00 | 198.00 | 120.00 | 18.00 | 21.00 | 20.00 |
| PRSL0871PI | 9 | 20.00 | 180.00 | 220.00 | 133.33 | 20.00 | 23.33 | 20.00 |
| PRSL0849PI | 9 | 24.00 | 216.00 | 264.00 | 160.00 | 24.00 | 28.00 | 20.00 |
| PRSL0846PI | 10 | 10.00 | 100.00 | 120.00 | 76.67 | 10.00 | 11.67 | 20.00 |
| PRSL0993PI | 10 | 18.00 | 180.00 | 216.00 | 138.00 | 18.00 | 21.00 | 20.00 |
| PRSL0970PI | 10 | 22.00 | 220.00 | 264.00 | 168.52 | 22.00 | 25.74 | 20.00 |
| PRSL0856PI | 10 | 24.00 | 240.00 | 288.00 | 184.00 | 24.00 | 28.00 | 20.00 |
| PRSL0861PI | 11 | 12.00 | 132.00 | 156.00 | 104.00 | 12.00 | 14.00 | 20.00 |
| PRSL0998PI | 11 | 18.00 | 198.00 | 234.00 | 156.00 | 18.00 | 21.00 | 20.00 |
| PRSL0997PI | 11 | 20.00 | 220.00 | 260.00 | 173.36 | 20.00 | 23.32 | 20.00 |
| PRSL0859PI | 11 | 24.00 | 264.00 | 312.00 | 204.00 | 24.00 | 30.00 | 20.00 |
| PRSL0863PI | 12 | 14.00 | 168.00 | 196.00 | 133.00 | 14.00 | 17.50 | 20.00 |
| PRSL0897PI | 12 | 16.00 | 192.00 | 224.00 | 154.67 | 16.00 | 18.67 | 20.00 |
| PRSL0972PI | 12 | 18.00 | 216.00 | 252.00 | 173.88 | 18.00 | 21.06 | 20.00 |
| PRSL0845PI | 12 | 20.00 | 240.00 | 280.00 | 193.34 | 20.00 | 23.32 | 20.00 |
| PRSL0878PI | 12 | 24.00 | 288.00 | 336.00 | 232.00 | 24.00 | 28.00 | 20.00 |
| PRSL0860PI | 13 | 6.00 | 78.00 | 90.00 | 63.00 | 6.00 | 7.50 | 20.00 |
| PRSL0853PI | 13 | 12.00 | 156.00 | 178.59 | 126.00 | 11.29 | 15.00 | 20.00 |
| PRSL0898PI | 13 | 16.00 | 208.00 | 240.00 | 170.67 | 16.00 | 18.66 | 20.00 |
| PRSL0862PI | 14 | 10.00 | 140.00 | 169.00 | 125.00 | 15.00 | 7.50 | 20.00 |
| PRSL0896PI | 14 | 16.00 | 224.00 | 256.00 | 186.67 | 16.00 | 18.67 | 20.00 |
| PRSL0999PI | 14 | 18.00 | 252.00 | 288.00 | 210.00 | 18.00 | 21.00 | 20.00 |
| PRSL0848PI | 14 | 20.00 | 280.00 | 320.00 | 233.33 | 20.00 | 23.33 | 20.00 |
| PRSL0858PI | 15 | 18.00 | 270.00 | 306.00 | 228.00 | 18.00 | 21.00 | 20.00 |
| PRSL0847PI | 16 | 20.00 | 320.00 | 360.00 | 273.33 | 20.00 | 23.33 | 20.00 |
| PRSL0973PI | 17 | 10.00 | 170.00 | 190.00 | 145.00 | 10.00 | 12.50 | 22.89 |
| PRSL0974PI | 17 | 14.00 | 238.00 | 266.00 | 203.00 | 14.00 | 17.50 | 22.89 |
| PRSL0851PI | 20 | 6.00 | 120.00 | 132.00 | 105.00 | 6.00 | 7.50 | 22.89 |
| PRSL0844PI | 25 | 1.00 | 25.00 | 27.00 | 22.50 | 1.00 | 1.25 | 22.89 |

Measuring unit: mm.

OSCAR - REQUEST FORM FOR NON STANDARD LIMIT SWITCH

4

Instructions

(See next pages for list of components and legends)

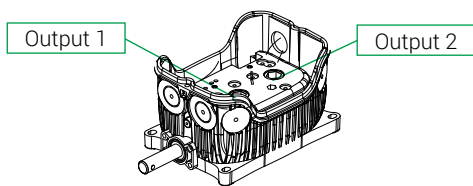
- 1 Version:** tick the required version.
- 2 Lima:** tick the box if you require Lima system.
- 3 Revolution ratio:** write the required revolution ratio for each output.
- 4 Standard cam sets:** write the code of the cam set required for each output.
- 5 Customized cam sets:** for non standard cam sets, fill in the scheme choosing the cams and the switches required. It is possible to assemble sets with 2, 3, 4, 5 or 6 cams/switches. Customized cams are available on request.
- 6 Potentiometers, encoders, Egon 36-AL, Yankee:** write the code of the potentiometer, encoder, Egon 36-AL or Yankee required. ATTENTION: potentiometer PA020009 can be mounted only alone, i.e. with NO sets of cams.
- 7 Coupling, flange, pinion gear:** tick the box when coupling, flange or pinion gear are required. When a standard pinion gear is required, write the code number listed in the pinion gear tables in the catalogue. When a special pinion gear is required, write the number of teeth, the module and the primitive diameter.
- 8 Shaft:** tick the shaft type required. Limit switches with Lima are available only with shafts made of high resistance stainless steel AISI 303. Customized shafts are available on request.
- 9 Cable clamps:** tick type and position of the cable clamps (8 max).

Version 1

- Version **CE EAC**
- Version **cULus CE EAC**
- Version with anti-moisture plug **CE EAC**

ATTENTION: Limit switches with Lima are only CE marked.
ATTENTION: Limit switches with shafts made of stainless steel AISI 430F are not cULus certified.

Lima 2



Revolution ratio 3

- | | |
|---|---|
| Output 1 | Output 2 |
| <input type="checkbox"/> 1:1 <input type="checkbox"/> 1:25 <input type="checkbox"/> 1:200 | <input type="checkbox"/> 1:1 |
| <input type="checkbox"/> 1:5 <input type="checkbox"/> 1:50 <input type="checkbox"/> 1:250 | <input type="checkbox"/> Revolution ratio equal to output 1 |
| <input type="checkbox"/> 1:10 <input type="checkbox"/> 1:70 <input type="checkbox"/> 1:300 | |
| <input type="checkbox"/> 1:15 <input type="checkbox"/> 1:100 <input type="checkbox"/> 1:450 | |
| <input type="checkbox"/> 1:20 <input type="checkbox"/> 1:150 <input type="checkbox"/> 1: <input style="width: 40px; border: 1px solid black;" type="text"/> | |

Standard cam sets 4

Cam set code _____

_____ Output 1

_____ Output 2

Customized cam sets 5



| | |
|----------|-------------|
| Output 1 | |
| Cam code | Switch code |
| 6 _____ | _____ |
| 5 _____ | _____ |
| 4 _____ | _____ |
| 3 _____ | _____ |
| 2 _____ | _____ |
| 1 _____ | _____ |
| Output 2 | |
| Cam code | Switch code |
| 6 _____ | _____ |
| 5 _____ | _____ |
| 4 _____ | _____ |
| 3 _____ | _____ |
| 2 _____ | _____ |
| 1 _____ | _____ |

Potentiometers, encoders, Egon 36-AL, Yankee 6

Output 1 Output 2

Code _____

- Male coupling** **Coupling** 7
- Female coupling** **Flange**
- Pinion gear**

Pinion gear code _____

Customized pinion gear

No. of teeth _____

Module _____

Primitive diameter _____

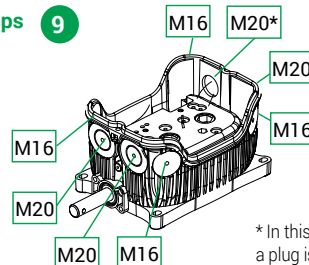
Standard shaft 8

- Stainless steel AISI 430F shaft
- High resistance stainless steel AISI 303 shaft

Flexible shaft

- Stainless steel AISI 430F shaft
- High resistance stainless steel AISI 303 shaft

Cable clamps 9



* In this position an M20 cable clamp or a plug is mandatory.

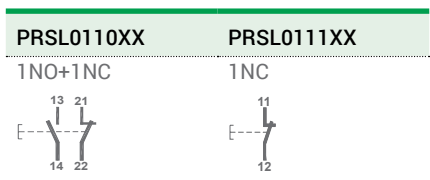
4 Legend - Standard cam sets

| No. & type of switches | No. & type of cams | Code |
|------------------------|--------------------|----------|
| 2 x PRSL0110XX | 2 cams A | FCL20001 |
| | Cams A+C | FCL20003 |
| | 2 cams C | FCL20005 |
| 4 x PRSL0110XX | Cams D+D+B+F | FCL40001 |
| | 4 cams A | FCL40003 |
| | Cams A+A+C+C | FCL40005 |
| | 4 cams C | FCL40007 |
| | Cams C+C+C+E | FCL40009 |
| | Cams A+A+E+E | FCL40011 |
| 5 x PRSL0110XX | 5 camme A | FCL50006 |
| | 5 camme C | FCL50001 |
| 6 x PRSL0110XX | 6 camme A | FCL60003 |
| | 6 camme C | FCL60001 |
| 2 x PRSL0111XX | 2 cams A | FCL20002 |
| | Cams A+C | FCL20004 |
| | 2 cams C | FCL20006 |
| 4 x PRSL0111XX | Cams D+D+B+F | FCL40002 |
| | 4 cams A | FCL40004 |
| | Cams A+A+C+C | FCL40006 |
| | 4 cams C | FCL40008 |
| | Cams C+C+C+E | FCL40010 |
| | Cams A+A+E+E | FCL40012 |
| 5 x PRSL0111XX | 5 camme A | FCL50005 |
| | 5 camme C | FCL50010 |
| 6x PRSL0111XX | 6 camme A | FCL60006 |
| | 6 camme C | FCL60010 |

6 Legend - Potentiometers, encoders and Yankee

| Description | Code |
|--|----------|
| Potentiometer 10 kΩ with support | PA020001 |
| Potentiometer 10 kΩ mechanical stop with support | PA020002 |
| Potentiometer 10 kΩ ±10% 4 pins with support | PA020003 |
| Potentiometer 10 kΩ ±10% 3 pins with support | PA020004 |
| Potentiometer 5 kΩ ±10% with support | PA020005 |
| Potentiometer 4.7 kΩ with support | PA020006 |
| Potentiometer 10 kΩ with support | PA020007 |
| Potentiometer 2.2 kΩ with support | PA020008 |
| Potentiometer 2KΩ with support | PA020009 |
| Encoder 36 pulses./rev. with support | PA030001 |
| Encoder 150 pulses./rev. with support | PA030002 |
| Yankee - current output | PA01AA01 |
| Yankee - voltage output | PA01AB01 |
| Yankee - PWM output | PA01AC01 |

5 Legend - Switches



5 Legend - Standard cams

| Cam | Code for PRSL0110XX switches | Switching angle with PRSL0110XX | Code for PRSL0111XX switches | Switching angle with PRSL0111XX |
|-----|------------------------------|---------------------------------|------------------------------|---------------------------------|
| A | PRSL7194PI | 21.5° ±0.5° | PRSL7194PI | 23.0° ±0.5° |
| B | PRSL7193PI | 21.5° ±0.5° | PRSL7193PI | 23.0° ±0.5° |
| C | PRSL7195PI | 82.0° ±0.5° | PRSL7195PI | 86.0° ±0.5° |
| D | PRSL7196PI | 94.0° ±0.5° | PRSL7196PI | 97.5° ±0.5° |
| E | PRSL7191PI | 204.5° ±0.5° | PRSL7191PI | 203.0° ±0.5° |
| F | PRSL7192PI | 328.5° ±0.5° | PRSL7192PI | 327.0° ±0.5° |

6 Configuration table

The following table shows possible configurations of Oscar and Oscar XL.

When it is not possible to mount a set of cams together with a potentiometer/encoder, the table shows «Not available».

When the standard cover PA090008 is not high enough to hold the elements mounted inside the limit switch, it is possible to use the cover rise PRSL0703PI (the table shows «Oscar XL»).

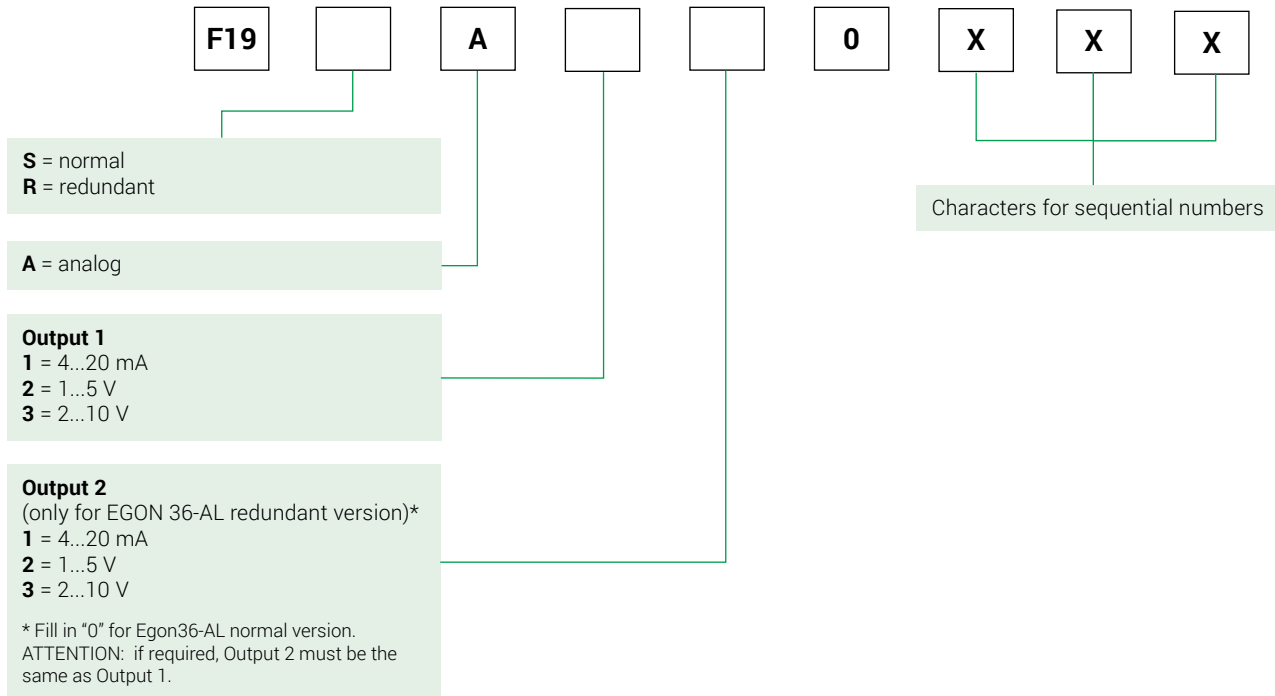
In all other cases it is possible to mount the sets of cams and potentiometer/encoder with the standard cover PA090008 (the table shows «Oscar»).

| | Set of cams with 2 switches | Set of cams with 3 switches | Set of cams with 4 switches | Set of cams with 5 switches | Set of cams with 6 switches |
|---------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Set of cams only | Oscar | Oscar | Oscar | Oscar | Oscar XL |
| Set of cams + Egon 36-AL | Oscar | Oscar XL | Oscar XL | Not available | Not available |
| Set of cams + Yankee1 | Oscar | Oscar | Oscar | Oscar XL | Oscar XL |
| Set of cams + PA020001 | Oscar | Oscar XL | Oscar XL | Not available | Not available |
| Set of cams + PA020002 | Oscar | Oscar XL | Oscar XL | Not available | Not available |
| Set of cams + PA020003 | Oscar | Oscar | Oscar XL | Oscar XL | Not available |
| Set of cams + PA020004 | Oscar | Oscar | Oscar XL | Oscar XL | Not available |
| Set of cams + PA020005 | Oscar | Oscar | Oscar XL | Oscar XL | Not available |
| Set of cams + PA020006 | Oscar | Oscar XL | Oscar XL | Not available | Not available |
| Set of cams + PA020007 | Oscar | Oscar XL | Oscar XL | Not available | Not available |
| Set of cams + PA020008 | Oscar | Oscar XL | Oscar XL | Not available | Not available |
| Set of cams + PA030001 | Oscar | Oscar | Oscar XL | Oscar XL | Not available |
| Set of cams + PA030002 | Oscar | Oscar | Oscar XL | Oscar XL | Not available |

6 Configuration form for Egon 36-AL

To generate the encoder code, fill in the boxes with the characters corresponding to the specifications required, as shown in the example. Enter the code in the space provided at point 6 (Potentiometers, encoders, Egon 36-AL, Yankee) of the «Request form for non standard limit switch».

F19 **R** **A** **1** **1** **0** **X** **X** **X**



REMARKS

Lined area for writing remarks, consisting of multiple horizontal green lines.