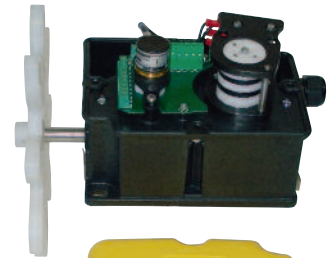


GEARED CAM LIMIT SWITCHES

HRLSA

- Precise adjustment of each CAM
- Single or double ended shaft
- Microswitches with gold contacts
- Up to 4 CAMs in one contact block
- Heavy duty design
- Plastic housing IP 65
- Ratio range 1:1 to 1:450
- Potentiometer and incremental or absolute encoder mounting possible



Rotary gear limit switches are used for yaw control (azimuth control) and pitch control. For yaw control they monitor the position of the nacelle and avoid twisted cables (cable twist sensor). Additional accurate positioning can be achieved by integrating a MEYLE incremental or absolute encoder or a potentiometer.

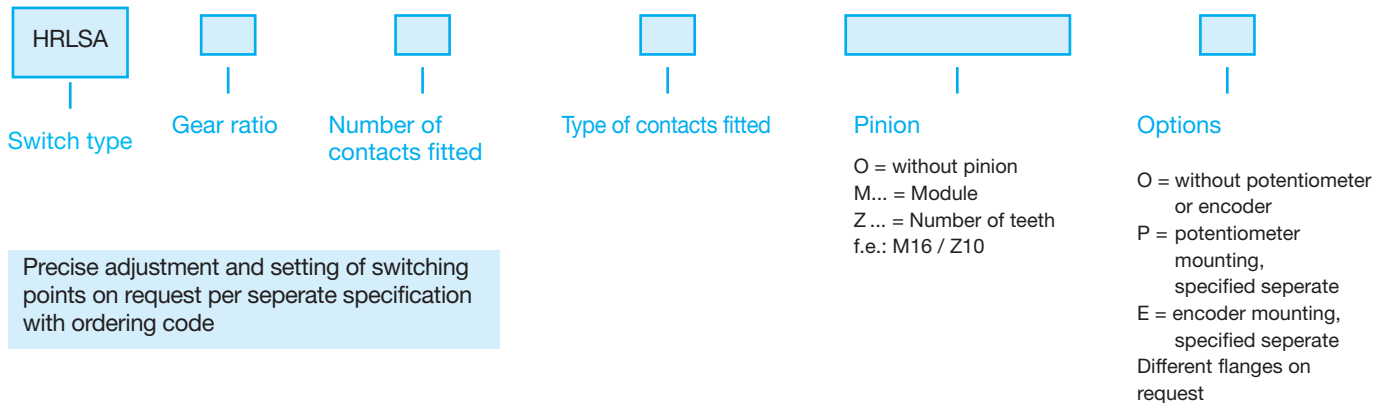
In pitch control applications the rotary gear limit switch monitors the position of the rotor. This is usually achieved through the integration of a MEYLE high resolution encoder.

The rotary gear limit switches are connected with the gear box of the nacelle or of the rotor by a pinion. These pinions can be made according to customers specification in size and number of teeth.

The rotary gear limit switches are designed for use in rough conditions and cold climate up to -40 °C.

Special version with circuit board and encoder

Ordering Code/Key to Types



Example: HRLSA 100 3G M16Z10 O
(ratio 1:100, 3 gold contacts, pinion M16 with 10 teeth, no options)



Specifications	
Weight	approx 1.5 kg
Housing material	thermo plastic material
Shaft	stainless steel shaft, 12 mm diameter (AISI 304 INOX)
Ball bushing	
Pinion	M6 to M22, different numbers of teeth available
Gear ratio	1:1 to 1:450
Internal helical gear	Thermo plastic material auto-lubricated to cams group and brass helical to encoder
Power supply	range 5–30 VDC
Independent mechanical output	2 output
Max radial load	14 N
Start torque	< 0.01 Nm
Max Rpm	900 Rpm
Protection class	IP65 acc. EN60529
EMC/Transient protection	certified according with EN50081-1/EN50082-2
Vibrations	(10–2000Hz)/10G
Shock	10G–16 ms (1000x3 Axis)
Working temperature	from -40 °C to +90 °C
Storage temperature	from -40 °C to +90 °C
Product certification	CE and UL
Options	mounting by different coupling flanges
	mini shaft encoder incorporated in switch
	durable electronic terminal board
	possible direct connection to PLC

Main specifications of microswitch	
Weight approx	12 g
Contacts	positive opening contacts according with EN60947-5-1
Contact material	gold contact
Release force	min. 0.4 N
Actuating force	max. 2.25 N
Ith	6 A
Terminal leads	blade terminals quickconnect 6.3 mm x 1 or 6.3 mm x 2.5; DIN 46247
Operating temperature	-40 °C to +85 °C
Protection class	IP40, IP00 (terminals) according with EN60529
N. of micro/cams	std. from 4 to 6

Dimensions

