

Linear actuator Insolis 2 for solar tracking systems



*Follow the sun –
with our drives for
solar photovoltaic systems*



Insolis 2

made in
GERMANY

Linear actuator Insolis 2



Description and applications

Insolis actuators have been specially developed for solar photovoltaic systems. They are used for solar tracking systems with Elevation and Azimuth movements. Insolis 2 actuators are dedicated for photovoltaic systems up to a static load peak of 15,000 N. Also there are versions with encoder or potentiometer for position feedback. The housing is protected as standard to IP 65 and therefore ideally suited to outdoor applications in different climatic conditions. The actuators are corrosion-resistant and maintenance-free. Insolis 2 actuators are fitted with sophisticated technology. They combine long service life with highest quality “Made in Germany”.

Technical data

	Version AC	Version DC
Rated Voltage	230V AC	24V DC
Dynamic load peak	5,000 N	5,000 N
Statik load peak	15,000 N	15,000 N
Stroke speed	4.5 mm/s	2.5 mm/s
Stroke length ¹	500 – 1,000 mm	500 – 1,000 mm
Rated current	1.3 A	3.3 A
Power	299 VA	79 W
Rating	KB 8 min.	KB 12 min.
Impulses per stroke mm	17.48	36.44
Length of the control and connecting cable	1.0 m ²	1.0 m ²
Protection class	IP 65	IP 65
Operating temperature range	-20 to +60 °C	-20 to +60 °C
Emitted airborne noise	< 70 dB (A)	< 70 dB (A)
Weight	up to 20 Kg	up to 20 Kg
Fixing on piston end	joint rod head	
Fixing on housing end	pivot	
Housing and piston material	anodised aluminium	
Options	encoder/potentiometer	
Mounting position	always facing downwards	
Special features	torsion lock on piston end	

⁽¹⁾ Stroke lengths available in steps of 100 mm

⁽²⁾ Cable lengths up to 5.0 m are available on request

All technical data represent average values and are based on an ambient temperature of 20 °C.

During installation please observe that the piston rod has to face upwards and that the PG cable glands on the actuator tube have to face downwards. Prior written approval from the manufacturer is required for differing mounting positions.

Internal limit switches

The internal limit switches ensure that the piston rod moves between two adjustable end positions.

Feedback signals

The actuator provides a position signal on the respective limit switches.

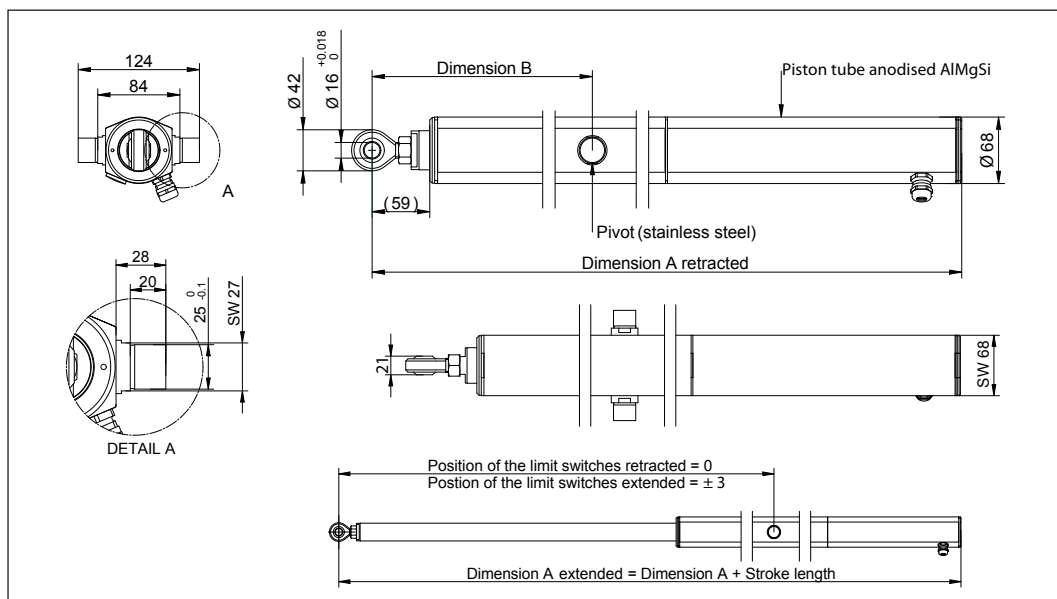
Our small and powerful model for solar tracking systems



IP 65
Fertigung überwacht

Technical data and wiring diagram

Dimensional drawings – fastening: lug / pivot



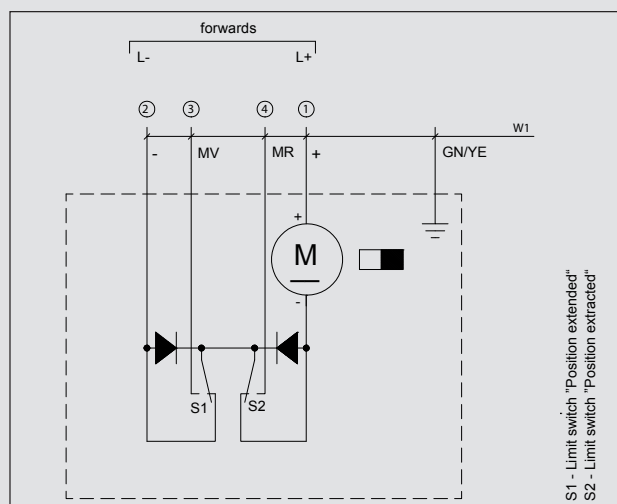
Dimensional chart – fastening: lug / pivot (24V DC and 230V AC)

Nominal size	Stroke length (mm)	Dimension A for AC version retracted or DC with potentiometer (mm)	Dimension A for AC version retracted with potentiometer (mm)	Dimension A for DC version retracted (mm)	Dimension B selectable from – to (mm)
1	500	1,285	1,385	1,175	230 – 550
2	600	1,385	1,485	1,275	230 – 650
3	700	1,485	1,585	1,375	230 – 750
4	800	1,585	1,685	1,475	230 – 850
5	900	1,685	1,785	1,575	230 – 950
6	1,000	1,785	1,885	1,675	230 – 1,050

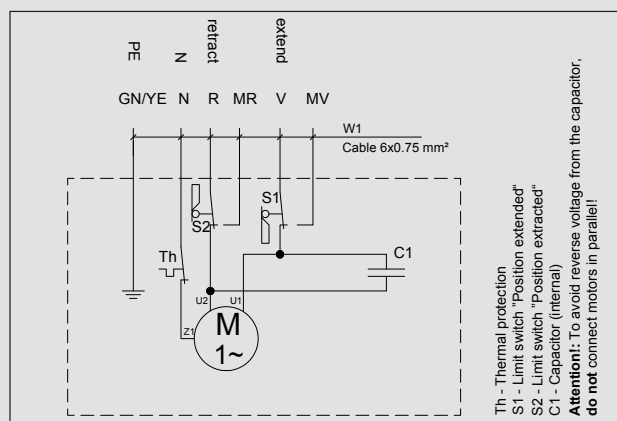
Follow the sun and be ahead



Standard wiring diagrams

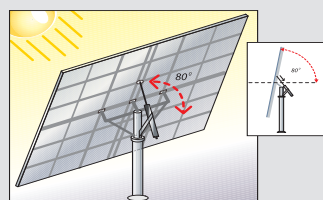


Operating voltage 24V DC
Wiring diagram GS 9408

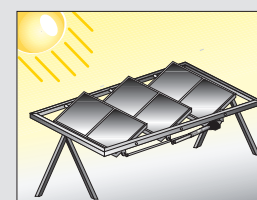


Operating voltage 230V AC
Wiring diagram WS 9805

**Further circuit variants with encoder
and potentiometer on request!**



Elevation
(vertical movement)



Azimuth
(horizontal movement)

Movements of solar modules

Biaxial tracking systems offer the highest efficiency. This means that the tracking movements take place in two planes:
The Insolis 2 linear actuators can be used for Elevation and Azimuth.

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