Rotary gear motor series SO

The S0.. electric and electronic spur gear motors are specially designed to be installed in industrial and chemical combustion plants.

They are particularly suitable to control ball valves, butterfly valves etc. as well as or to air locks and other devices for the regulation of fluids in air conditioning or heating systems. The electric motor operates bidirectional, with high static and maintaining torques for 3-position control.

On request available also analogic input signal: current or voltage change or change in the resistance value of the potentiometer.



TECHNICAL FEATURES

Body and cover models S01 and S02-20	Stamped plate
Body and cover S02-25 and S03	Sand aluminium
Rated torque	7,5÷180 Nm
Rotation time	1÷120 s for 90° at 50 Hz according to model
Rotation angle	From 20° to 320°
Motor shaft	Ø 12÷20 mm or □9,5 mm
Installation	In any position
Ambient temperature	-10 ÷ +60 °C
Supply voltage	230V ac / 50-60 Hz
On request	115V ac / 50-60 Hz (not S03-120) 24V ac and dc
Input signal	0 (4)÷20 mA / 0÷10V dc
Duty cycle	Continuos 100%
Enclosure	IP54 (model S01 and S02-20) IP65 (model S02-25 and S03)
Weight	~ 3,20 Kg÷7 Kg according to model

FEATURES

- Versatile installation in any position allows easy fitting to existing equipments
- Change of rotation angle with automatic adjustment of the input/output signal
- Sturdy compact, balanced design, suitable for industrial applications
- Installation in any position
- Long block-resistant [without limit switch]
- Anticlockwise rotation [seen from the top]
- Wide range of accessories on request:
  - Continuous control with 0(4)–20 mA or 0 – 10V input and output signal
  - Feedback potentiometer, 150 Ohm to 2,5 kOhm
  - Manual/automatic operation and service switch Open/Close/Stop
  - Adjustable shaft shape
  - Additional cable glands: M16 x 1,5 or M20x1,5 in nickel plated brass
  - Three-step, 1 wire, 2 wires or stepper motor control
  - Adjustable auxiliary microswitches [max. 8] and potentiometer [max. 2]

MODELS

MODEL S01-10**

Model	Rotation time for 90°	Torque in Nm
S01-10/30	15 s	7,5
S01-10/30	30 s	16
S01-10/30	60 s	31
S01-10/430	7,5 s	10
S01-10/440	7,5 s	20
S01-10/444	7,5 s	25

MODEL S02-20**

Model	Rotation time for 90°	Torque in Nm
S02-20/300	15 s	7,5
S02-20/300	30 s	16
S02-20/300	60 s	31
S02-20/430	7,5 s	10
S02-20/430	15 s	20
S02-20/430	30 s	31
S02-20/430	60 s	40
S02-20/444	7,5 s	25

MODEL S02-25 and S02 -50**

Model	Rotation time for 90°	Torque in Nm
S02-25/4400	7,5 s	20
S02-25/4400	15 s	40
S02-25/4444	7,5 s	25
S02-25/4500	30 s	31
S02-25/4500	60 s	40
S02-25/4500	15 s	22
S02-25/4500	30 s	45
S02-25/4500	60 s	60

MODEL S03-120**

Model	Rotation time for 90°	Torque in Nm
S03-120/04500	15 s	30
S03-120/04500	30 s	60
S03-120/04500	60 s	90
S03-120/04800	15 s	60
S03-120/04800	30 s	90
S03-120/04800	60 s	140
S03-120/64112	15 s	90
S03-120/64112	30 s	120
S03-120/64112	60 s	180

**** other ration times quicker or slower are available on request.**

S = Rotary actuator (select model type above reported table)

Supply voltage (+ 6% - 10% / 50 - 60 Hz)
A = 24V ac ± 10% / 50 - 60 Hz
B = 115V ac + 6% - 10% / 50 - 60 Hz
C = 230V ac+ 6% - 10% / 50 - 60 Hz
B / A = With transformer 115V / 24V ac ~
C / A = With transformer 230V / 24V ac ~

Rotation times for 90°
1 = 15 s
2 = 30 s
3 = 60 s
4 = 120 s

Feedback potentiometer
00 = Not foreseen
13 = 1 kohm

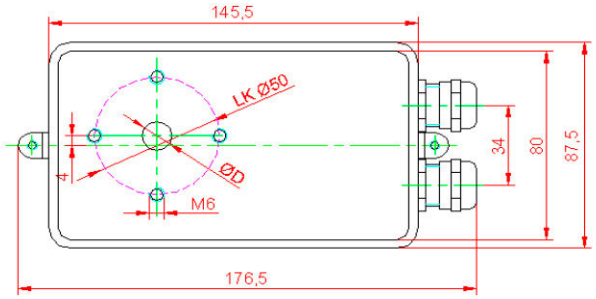
Auxiliary microswitches
0 = Not foreseen
2 = nr. 2 adjustable switches

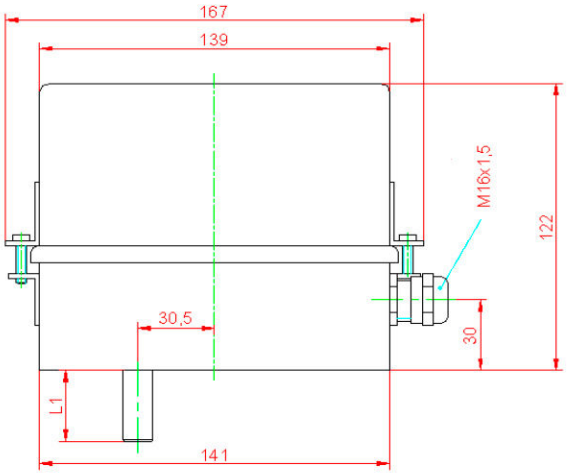
Accessories
S = Control station auto/man and open/stop/closed
E8 = Input and output control signal 4 - 20 mA
E7 = Input and output control signal 0 - 10V dc

S02-25/4500	C	2	15	2	S

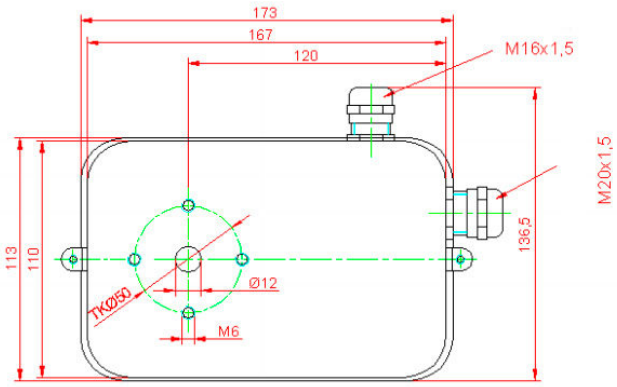
DIMENSIONS

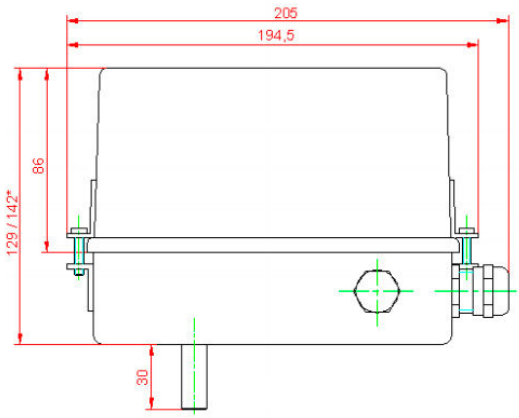
S01-10



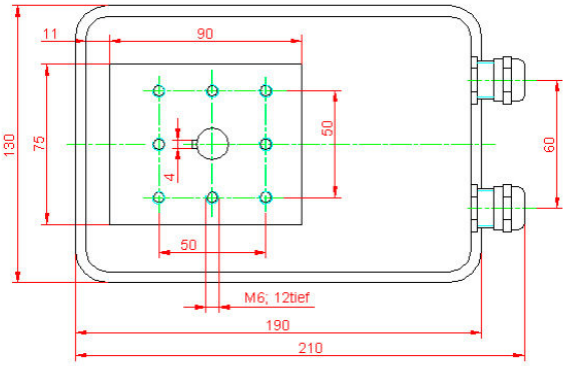


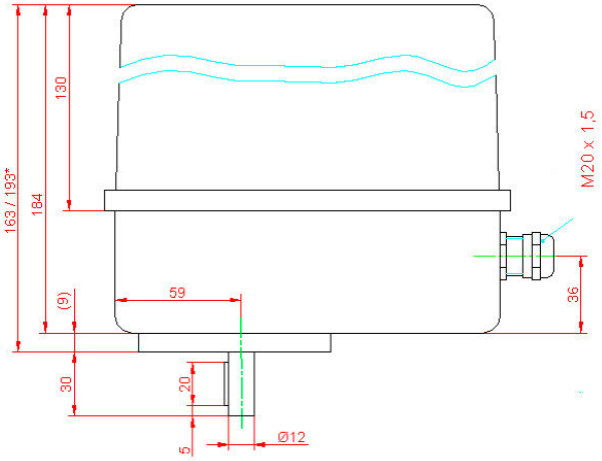
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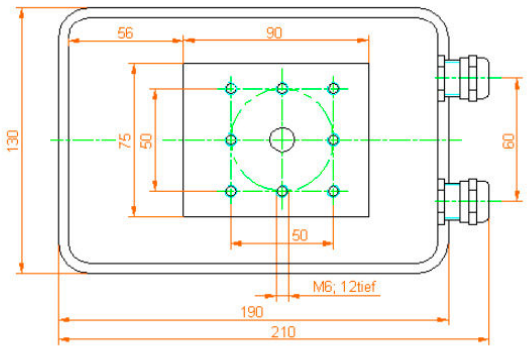


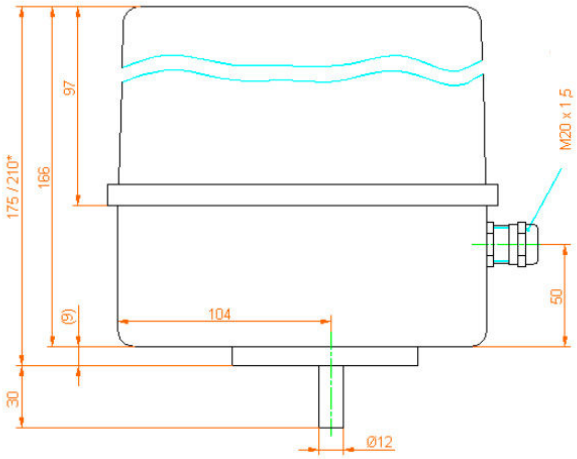
S02-25



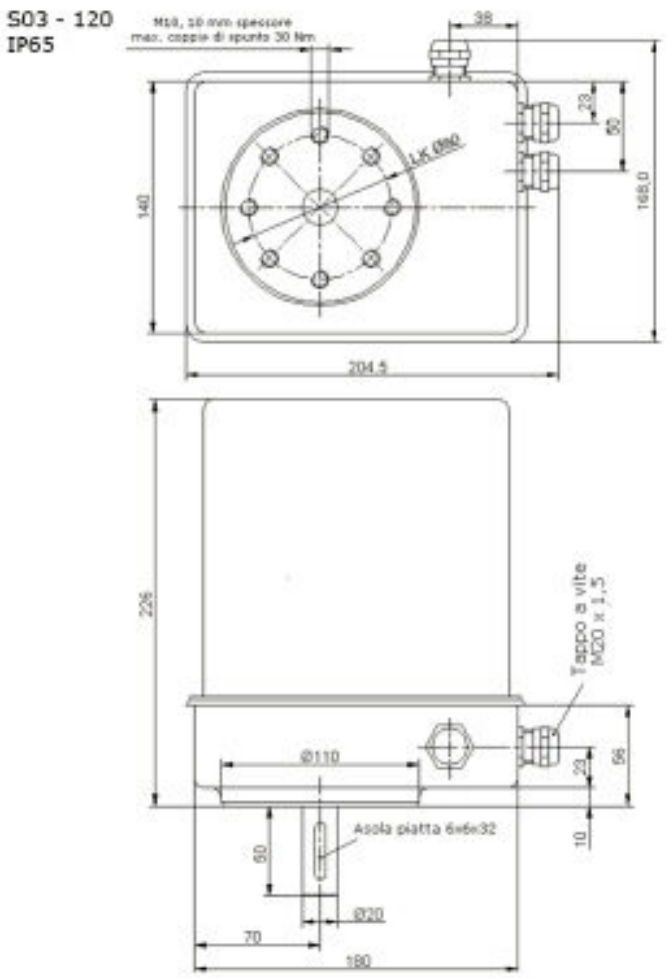


S02-50



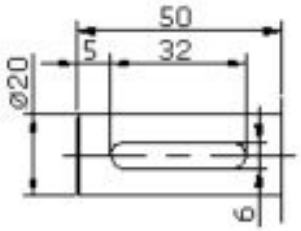


DIMENSIONS

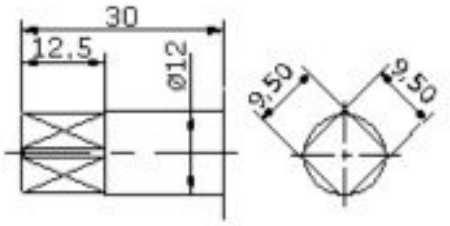


ACTUATOR SHAFT

FORM C



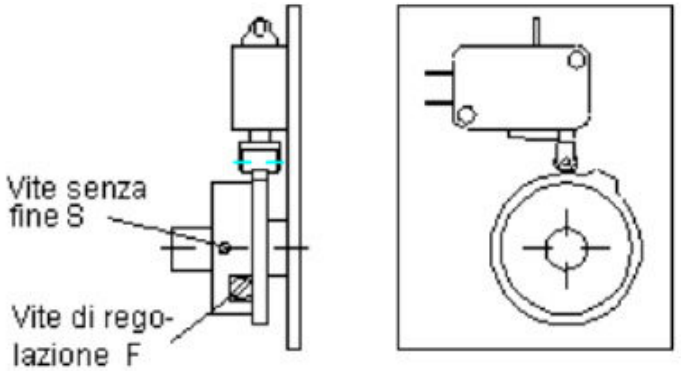
FORM D



WIRING

Depending on model type, please refer to instruction manual.

CAM ADJUSTMENT



The stop position switches with the 15° conical cams are factory-preset on 90°.
For fine adjustment, turn screw "F" with a screwdriver until the switch clicks slightly.
For a check start the switching position electrically, readjust it if necessary and tighten stud bold "S".
On delivery displacement, transducer switches with trigger cams 180° are set loosely on the camshaft that is-at the same time- the drive shaft.
Fasten the trigger cam with stud bolt "S" and 1,5 mm wrench slightly on the distribution shaft.
For a fine adjustment (like for the stop position switch) turn screw "F" with a screwdriver until the switch clicks slightly.
Check the switching position via electrical rotation, tighten screw "S" and lock it.

All the reported data are subject to be changed without notice. **from 140906**

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