

ELECTRONIC ROTARY GEAR MOTOR

Series SBD (AB1...E)

The SBD electronic rotary gear motors are newly conceived and have been specially designed to be installed on industrial and residential combustion systems. They are particularly suitable for the control and regulation of modulating valves, butterfly valves, dampers and other fluid regulation systems requiring an angular positioning within 90° or 180°. The electronic motor is unipolar and bidirectional with high static and maintaining torque. Analogic input signal: current or voltage change or change in the resistance value of the potentiometer.



TECHNICAL FEATURES

Body and cover	: die-cast aluminium	Supply voltage	: 24Vac / 50 – 60 Hz
Nominal torque	: 3 ÷ 5 Nm	On request	: with trafo 115V~ up to 24 V~
Maintaining torque	: 2,5 ÷ 3 Nm		with trafo 230V~ up to 24 V~
Rotation time	: 15,30 or 60 sec. at 50Hz	Nominal load	: 4 - 7 VA
Rotation angle	: standard 90°	Input signal	: 4 ÷ 20 mA or 0 ÷ 10 Vdc
On request	: adjustable 20°÷180	On request	: 0÷10 Vdc/4÷20 mA out 0÷10 Vdc
Output shaft	: Ø 10 mm	Output signal	: 0 ÷ 10 Vdc
Installation	: in any position	Duty cycle	: continuous 100% ED
Fastening bore	: ISO 5211 [F05], F07	Rating of auxiliary and end switches	: 0,5 A / 48 V D.C. and Vac
Ambient temperature	: -10 ÷ +60 °C	Enclosure	: IP54 acc. to IEC 529
Weight	: ~1,7 kg	Cable gland	: 2 x Pg 13,5

FEATURES

- Interchangeability with the most available gear motors.
- Sturdy, compact construction, suitable for industrial applications.
- Installation in any position.
- Adjustable rotation angle.
- Cams easily adjustable through friction.
- n. 2 End switches + n.2 adjustable auxiliary microswitches with free electric contacts
- Manual/Automatic operation and service switch "Open/Stop/Closed"
- Wide range of accessories on request:
 - output signal 0 ÷ 10 V.D.C.
 - 1 potentiometer 1 kohm [not available with transformer]
 - mechanical position indicator
 - 180° or clockwise rotation
 - IP65 enclosure

SBD = Electronic rotary gear motor

Supply voltage

A = 24Vac \pm 10% / 50-60Hz

B = with transformer 115Vac up to 24Vac (+6%-10%/50-60Hz)

C = with transformer 230Vac up to 24Vac (+6%-10%/50-60Hz)

Rotation time at 50Hz [s]

1 = 15 for 90°

2 = 30 for 90°

3 = 60 for 90°

Rated torque

3 Nm

3 Nm

5 Nm

Maintenance torque

2,5 Nm

2,5 Nm

3,0 Nm

Potentiometer

00 = none

13 = 1 kohm

Auxiliary microswitches

2 = 2 pc. [standard]

Auto/Man Control station

S = AUTO/MAN Control station and
Open/Stop/Close [standard]

Accessories/Control signal

E2 = in 0 ÷ 10 Vcc or 4 ÷ 20 mA
out 0 ÷ 10 Vcc +reg.+inv.(N)

E4 = in 0 ÷ 10 Vcc

E5 = in 4 ÷ 20 mA [standard]

On = Position indicator
on the top cover + **En**

8n = 180° rotation + **En**

Dn = Clockwise rotation + **En**

Zn = Enclosure IP65 + **En**

SBD

C

3

00

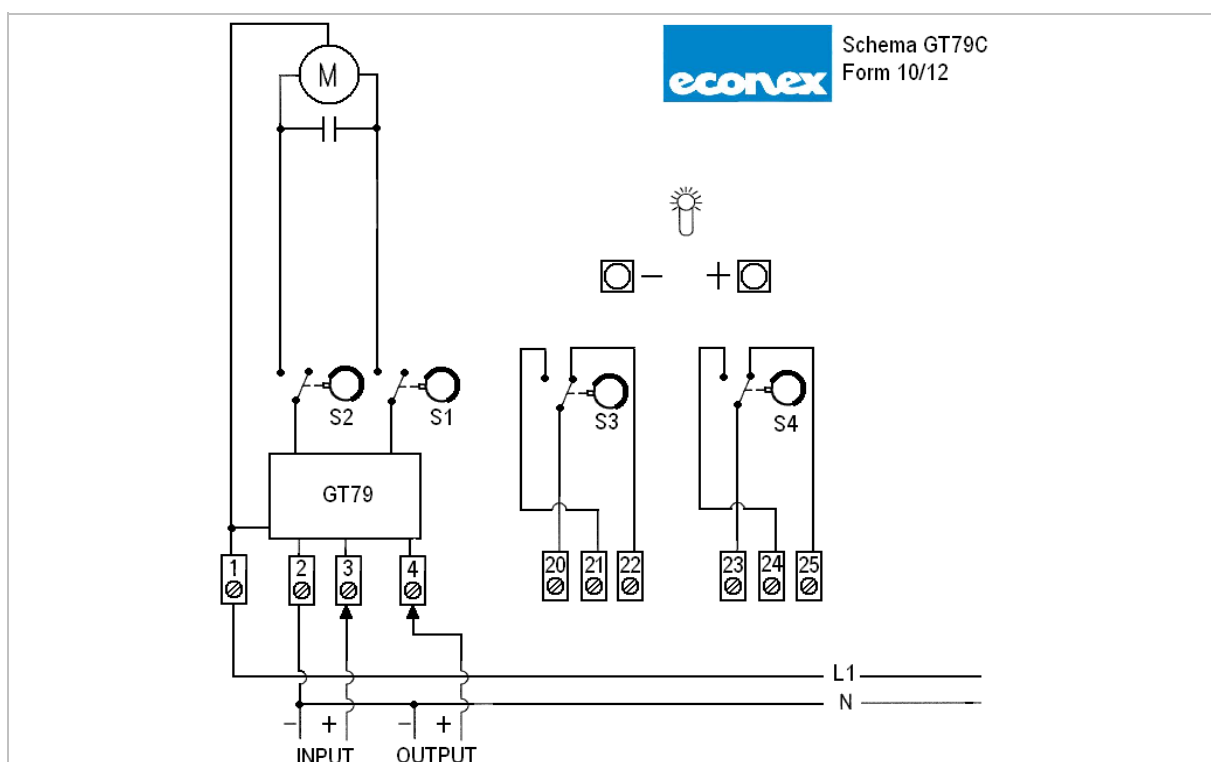
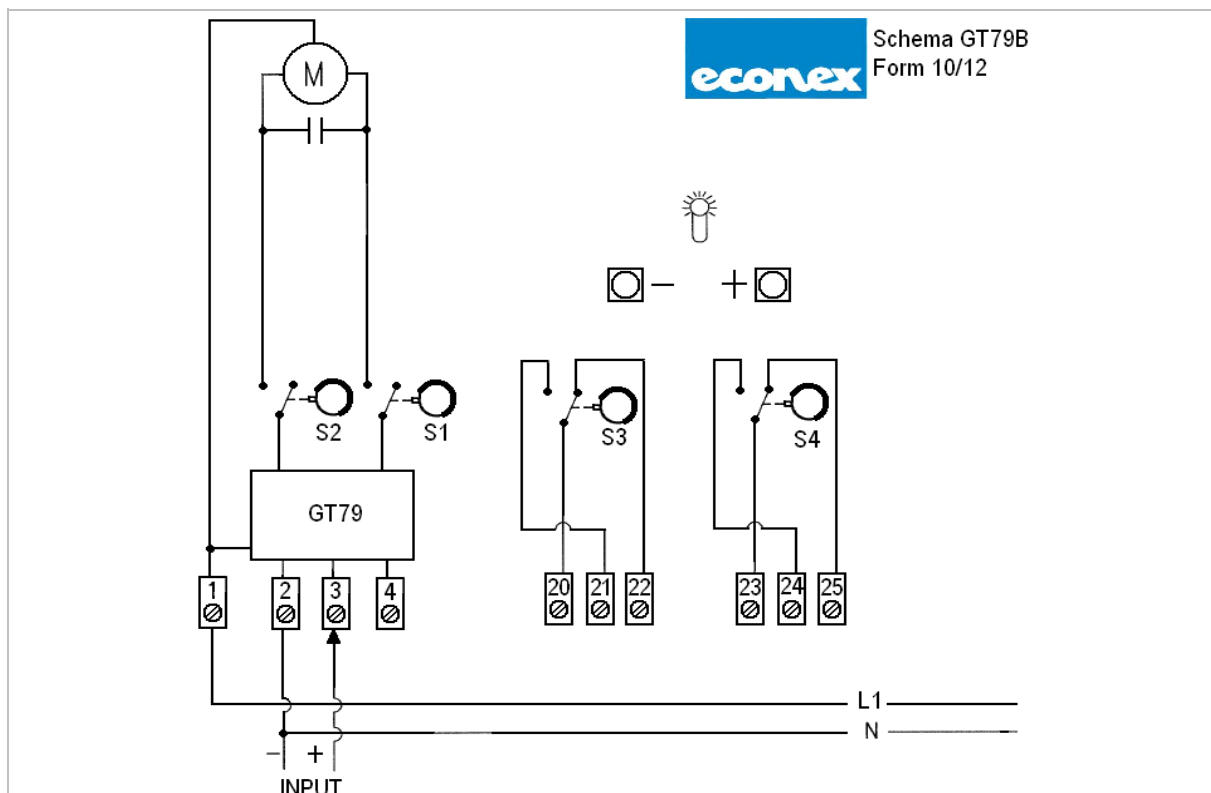
2

S

E5

NOTE : Max. torque on auxiliary shaft is 3 Nm less than rated torque

WIRING DIAGRAM

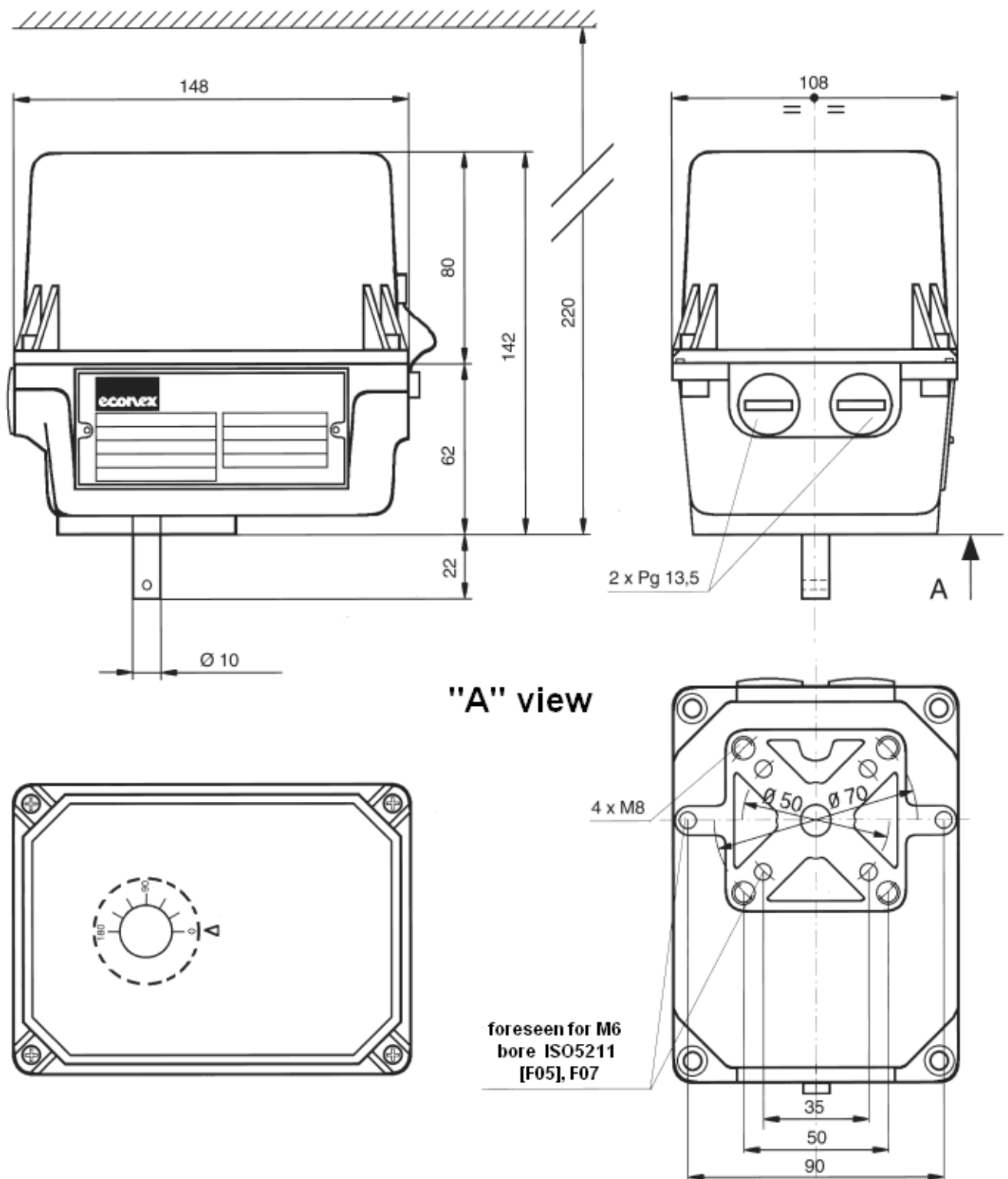


CAM ADJUSTMENT



For cam adjustment the proper lever supplied with the gear motor equipment is to be used. Use the lever from the right side, introducing the pin into one of the bores on the sides of the blue cam and lever it to the desired position. If the blue cam is in a behind position, use the lever on its curved side to move the blue cam to a more suitable position to perform adjustment. Adjustment is possible in both directions along the whole rotation angle of the cam shaft. Remove the lever before servicing.

Note If a potentiometer is installed it is necessary to reset its friction gear to 0 setting.



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