ELETTRIC ACTUATORS 1000 N

DB-DA51

APPLICATION AND USE

DB-DA51 series actuators are well-suited to drive 2F, 3F series valves with DN50 diameter with selectable stroke 15, 17, 19 mm. The connection to the valve stem is done by a hexagonal nut. The mechanical fixing is done by a ring nut.
Actuators are available in floating (3-point) or modulating control signal mode. Jumpers allow the following setting:
a) control signal 0…10 Vdc or 4…20 mA
b) direct or reverse action
c) position of valve stem when power supply is off.

The modulating actuators have in addition a 0...10 Vdc feedback signal. The floating actuators can be supplied with an auxiliary adjustable microswitch for end stroke signalling.
All actuators are fitted with a manual command for changing position of the valve stem when power supply is off.

TYPE	FORCE N	POWER SUPPLY Vca	POWER CONSUMPTION VA	STROKE mm	ACTION
DB-DA51F	1000	24	5.5	22	2-, 3- point (floating)
DB-DA51M	1000	24	7.5	22	modulating 0…10 Vdc - 4…20 mA

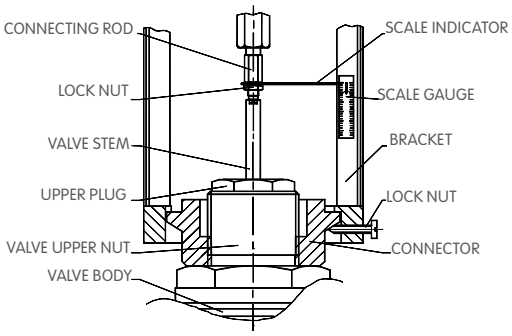
CARATTERISTICHE TECNICHE

DB-DA51F

Power supply: 24 Vac 50/60 Hz (on request 230 Vac)
Action: 2-, 3-point (floating)
Motor type: bi-directional synchronous motor with magnetic clutch
Materials: gear: polyoxymethylene plastic,
reducer: zinc-plating steel,
bracket: aluminum casting,
casing: flameproof ABS engineering plastic
Stroke time: 50 Hz: 4.6 sec/mm,
60 Hz: 3.8 sec/mm
Room temp. limit: working: +2...+55 °C,
Storage temp.: -20...+65 °C
Weight: 1100 g
Accessories: DB-DA51AS, auxiliary microswitch
N.O. 5 A 230 Vac adjustable on whole stroke

DB-DA51M

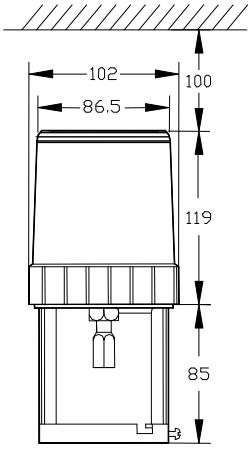
Power supply: 24 Vac ±10%, 50/60 Hz
Action: proportional, direct or reverse
Input signal: 0...10 Vdc or 4...20 mA.
Feedback signal: 0...10 Vdc (5mA).
Input resistance: 100 kOhm
Motor type: bi-directional synchronous motor with magnetic clutch
Materials: gear: polyoxymethylene plastic,
reducer: zinc-plating steel,
bracket: aluminum casting,
casing: flameproof ABS engineering plastic
Stroke time: 50 Hz: 4.6 sec/mm,
60 Hz: 3.8 sec/mm
Room temp. limit: working: +2...+55 °C,
Storage temp.: -20...+65 °C
Factory calibration: 22 mm stroke,
0...10 Vdc input signal,
direct action (DA),
position without signal: stem up
Weight: 1150 g
Accessory: DB-51AS auxiliary microswitch N.O.
230 Vac 5 A adjustable on whole stroke



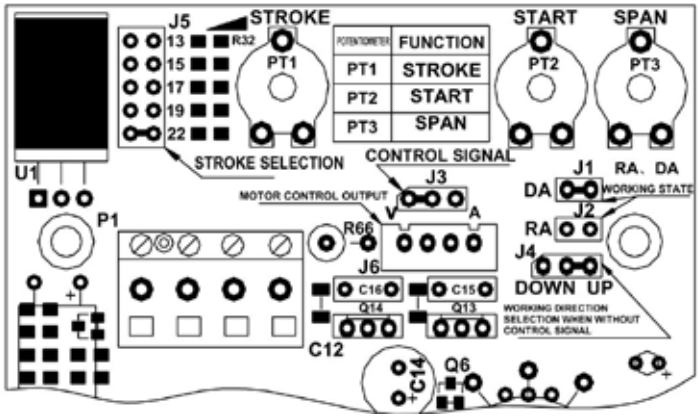
MOUNTING

- Mount the servomotor with bracket on the valve stem (be careful to the direction of it).
- Screw the lock nut into the valve stem, then raise the valve stem and insert the two indicators on internal edge of the bracket.
- Tighten the connecting rod of actuator into the valve stem and lock it with a spanner.
- The actuator must be mounted preferably vertically. Never mount it upside down.
- Do electrical connections according to wiring diagrams and standards.
- Power on the actuator to put stem on uppest / lowest position and verify the valve is completely closed / open. If necessary regulate position screwing or unscrewing the stem from shaft connector of the actuator and then tightening again the lock nut (that had been unlocked to do this operation).
- Position the scale indicator according to the stroke done.
- DB-DA51M factory setting is direct action (DA), 0...10 Vdc input signal, 22 mm stroke and stem up.
  To set reverse action (RA) remove jumper from J1 and insert it in J2.
  To change the stroke remove jumper J5 from 22 and insert it in correct new position: 15, 17, 19 mm.
  To change input signal type from 0...10 Vdc to 4...20 mA remove jumper J3 from V and put it in A.

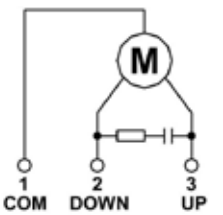
DIMENSIONS



WIRING DIAGRAMS

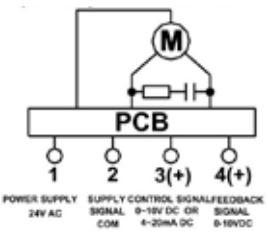


DB-DA51F



TERMINAL	ACTUATOR ROD
1-2	DOWN EXTEND
1-3	UP CONTRACT

DB-DA51M



INPUT CONTROL SIGNAL		ACTUATOR ROD
DA	RA	
INCREASE	DECREASE	DOWN
DECREASE	INCREASE	UP