**BEA©servo servo 3 system Intelligent valve actuator Size 1**

1. **Servo drive (size 1):**

Corrosion-free stainless steel housing A4 – 1.4571

Cut-off torque 20…100 Nm (100 Nm only available up to 60 min-1)

Continuously adjustable speed from 1 to 64 min-1

Temperature range -20°C…+60°C

Degree of protection IP68++ up to 8m wc for 30 days in still water (with continuous operation)

Maximum running time unlimited (S1 mode)

Motor protection provided by means of servo-converter, cut-off in the event of overload, or in the event of

 thermal overload

Maximum number of revolutions/stroke = 9999 rev/stroke

Installed position - any

Motor sensor, backup battery (backup position in the event of power failure)

 Life up to max. 10 years (recommendation: Change battery after 5 years)

In-situ operation at the drive with buttons (OPEN / STOP / CLOSED)

Mechanical position indicator, signals current position even in case of power failure

Anti-condensation heating in the drive

Connection plug in the drive for stainless steel connection socket of the preassembled cable set

Emergency operation in the event of power failure possible via cordless screwdriver (provided by customer)

 (Access to the emergency operation behind IP68 sealing plugs)

M10 internal thread in the housing, for mounting a crane lifting eye

Valve connection B42 to EN ISO 5210 or connection type A with flange size 10

1. **Cable set preassembled (size 1):**

 Preassembled connection cable set with pluggable connection socket. The cables are moulded in the connection socket, the cable set can be plugged into the drive. The other end for connection to the control cabinet is also preassembled

(Standard lengths: 5 / 15 / 25 / 30 / 39 m).

Connection socket made of stainless steel, pluggable

Sensor cable, motor cable and control cable routed in connection socket via IP68 stainless steel cable gland and is additionally moulded watertight

Motor cable type INK0670 PUR (4G0.75+(2x0.5)) mm² orange

Sensor cable type REG0012 PUR (2x2x0.2 + 2 x 0.5 mm²), orange

Control cable type Ölflex Robust 210 12Gx1.5mm², black

**Important: the maximum cable length between the drive and control cabinet is 39 m**

1. **Control cabinet (size 1):**
* Housing made of stainless steel A2 (1.4301), dimensions H/W/D 500x500x300 cable entry via Ms cable glands IP65 (from below)
* Connections via pluggable spring terminals
* Power connection required on site 230V / 50Hz; 1-phase (L1/N/PE)
* Nominal current: max.12A
* Required backup fuse max. gG25A (provided on site)
* Connected load 2.8 kVA
* Degree of protection IP65
* Temperature range -20°C…+40°C
* Main switch, 1-fold lockable in the control cabinet
* In-situ operation outside on the control cabinet:
	+ In-situ/0/Remote selector switch (with removable key)
	+ Indicating lights for: In-situ / Remote / Ready / Torque cut-off
	+ Illuminated button for centralised fault / error reset
	+ Illuminated button for OPEN / CLOSED
	+ Button for stop
	+ 4.3” touch panel (colour) installed in the control cabinet:
* For parameter presetting, commissioning, operation and status monitoring (actual position/ torque).
* Speed for opening and closing separately settable from 1…64 min-1.
* Cut-off torque for opening and closing separately settable.
* Ramp times for starting up and stopping separately adjustable, for gentle valve operation (protection of the mechanics by avoiding sudden movement).
* The standard control panel shows the torque, the status of the drive and the degree of opening at a glance.
* An actuation tool for emergency operation of the drive (a socket with an 8mm hexagon) is fixed in the control cabinet as a standard feature
* Anti-condensation heating in the control cabinet (controlled by thermostat)
* External control signals:

 Digital inputs 24V DC (via coupler relay) Remote - CLOSED Remote - STOP Remote - OPEN In-situ release (optional)

 Position setpoint (degree of opening) via analog input 4…20 mA (optional)

 Actuation via Profibus DP or Profinet with bus coupler (optional)

* Messages:

 Digital outputs (potential-free via coupler relay) End position - CLOSED

 End position - OPEN

 Key-operated switch position In-situ/remote

 Electrically ready

 Torque cut-off Centralised fault message

 Actual position value (degree of opening) via analog output 4…20 mA (optional)

 Feedback via Profibus-DP or Profinet with bus coupler (optional)

The BEA©servocan be commissioned at the display without additional software tools.

**Options:**

* Pillar stand 1797mm high with integrated cable routing (A2) to the free-standing installation of the control cabinet
* Canopy 700x621.2 (A2) incl. installation kit for control cabinet
* UPS for emergency operation in the event of power failure
* Cordless screwdriver for emergency operation in the event of power failure
* Fieldbus interface Profibus-DP or Profinet by means of bus coupler

**BEA©servo servo 3 system**

**Size 1**

or equivalent

**Manufacturer:**

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Germany

[**www.buesch.com**](http://www.buesch.com)

Quantity ........ EUR/each......... EUR/Item .........