

Electric Actuator Type EA 05



Instruction Manual - provided by www.KTHSales.com

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given in this publication
implies no warranty
of whatever kind and is
subject to change without
notice. Please consult our
Terms and Conditions of Sale.*

1. General

This instruction manual contains all the information regarding design, installation and start-up procedure for the electrical actuator unit type EA 05.

Warnings:

- Do not work on this unit before disconnecting it from the electric mains!
- Electric actuators do not have a safety position. In case of an electric failure the actuator resp. the valve remains in its actual position.
- Any work done on the actuator may only be carried out by authorized and trained personnel.
- These products are according to the Machine Guidelines 89/392/EEC, not regarded as machines; they are, however, built into installations which are regarded as machines.

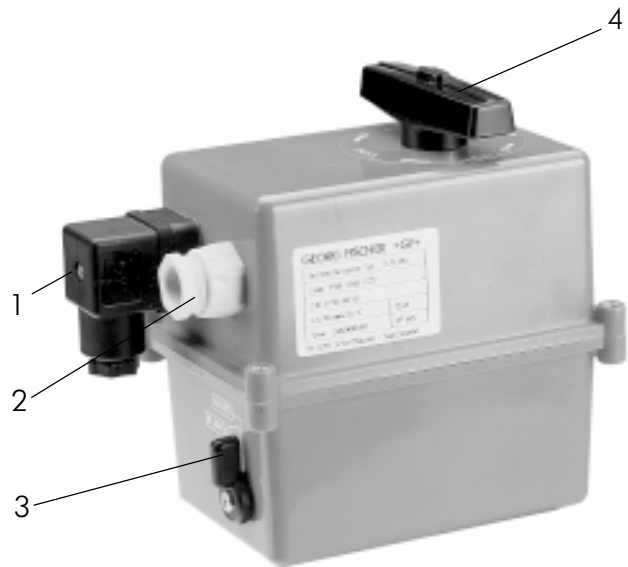
Note

We distinctly emphasize that operation is prohibited until it has been confirmed that the machine (plant) into which the products have been built corresponds to the conditions of the EC Machine Guidelines 89/392/EEC.

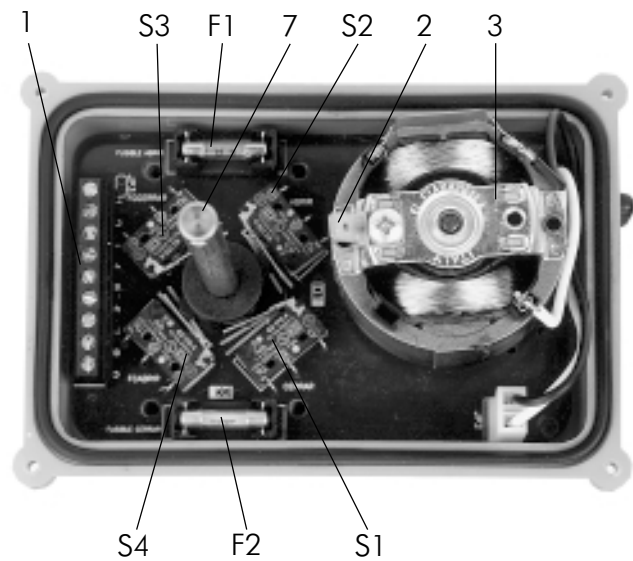
2. Design of the actuator

The standard version of the electrical actuator EA 05 consists of the following elements: spurwheel gear, AC-motor, as well as limit switches for positioning and position indication.

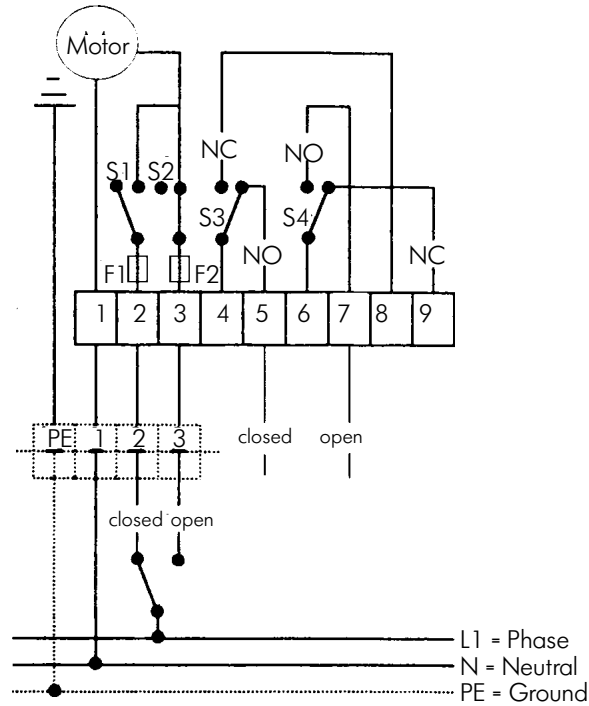
- 1 Unit plug
- 2 Cable gland PG 11
- 3 Lever for automatic/manual
- 4 Manual lever incl. visual position indicator



- 1 Terminal strip
- 2 Ground contact
- 3 AC-motor
- 4 Fuse F1, F2
- 5 Limit switches S1, S2
- 6 Open/close switches S3, S4
- 7 Switching cams for the endpositions



2.1 Wiring Diagram standard version



Technical data Type EA 05 actuator

Nominal voltage	115 V, 230 V, 50-60 Hz or 24 V
Rated Performance	35 VA
Protection class	NEMA 4x/IP 65 according to DIN 40050
Overload protection	current-time dependent (self resetting)
Duty cycle	35% at 77°F/25°C
Nominal torque	133 inch pounds/15 Nm
Operating time	10 sec/90° «
Operating angle	set at 90°, unidirectional clockwise
Ambient temperature	32°F to 122°F/0°C to 50°C
Flange connections	ISO 5211/F 05
Position indicator	visual
Features	additional 2 auxiliary switches and manual override integrated
Housing material	Polyamid (Nylon)
Electrical connection	unit plug 3 P+E according to DIN 43650 additional cable port PG 11
Weight	2.6 lbs./1.2 kg

4. Installation of the actuator

Warning:

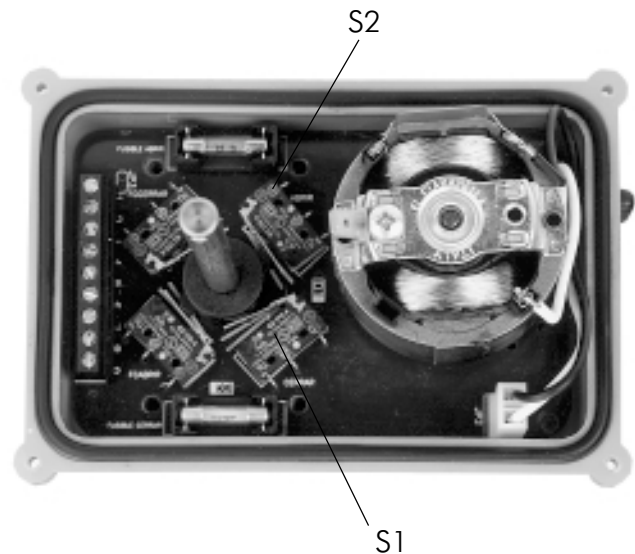
Before the actuator is connected to the electric mains, it must be checked that the electrical connections are correct.
(see Item 2.1).

Adjustments

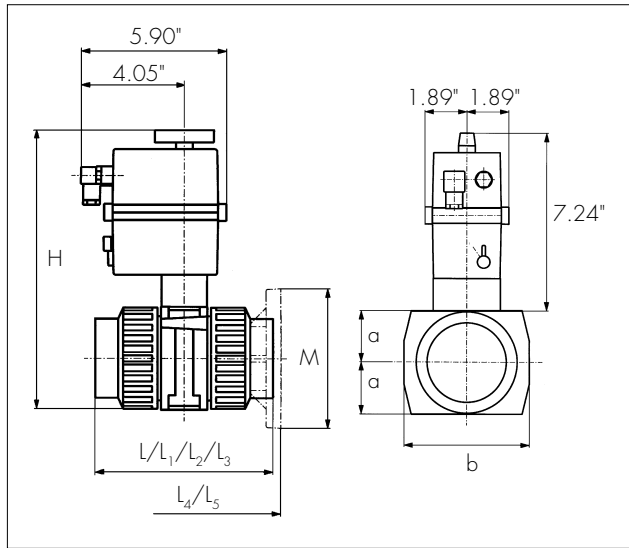
If a complete actuated valve is being supplied by George Fischer, no further adjustments are necessary. If the customer assembles the unit or after a repair, the end position must be checked and if necessary adjusted. Adjustments can only be done on dismantled valves.

Limit switch positions

Switch S2 opens at «open» position
Switch S1 opens at «closed» position
(see picture below)



5. Dimensions



L overall length of solvent cement socket and threaded valve in PVC and CPVC

L_1 overall length of metric fusion socket valve in PVDF and polypropylene

L_2 overall length of threaded valve in PVDF and polypropylene

L_3 overall length of butt fusion valve PVDF and polypropylene

L_4 face to face dimension of PVC and CPVC valve

L_5 face to face dimension of PVDF/polypropylene valve

Inch size	a inch	b inch	L inch	L_1 inch	L_2 inch	L_3 inch	OD d mm	ID DN mm
3/8	0.94	4.65	4.45	3.86	4.37	4.29	16	10
1/2	0.94	4.65	4.49	3.98	4.37	5.12	20	15
3/4	1.14	4.65	5.18	4.69	5.12	5.67	25	20
1	1.34	4.65	5.62	5.12	5.51	5.91	32	25
1-1/4	1.69	4.65	6.58	5.87	6.50	6.73	40	32
1-1/2	1.97	4.65	6.76	6.38	6.57	7.52	50	40
2	2.40	5.12	7.97	7.68	7.83	8.66	63	50

Inch size	L_4 inch	L_5 inch	H inch	flange height M inch			Weight lbs.	OD d mm	ID DN mm
				PVC/CPVC	PP	PVDF			
3/8	—	—	9.13	—	—	—	—	16	10
1/2	6.21	6.81	9.13	3.50	3.74	3.50	4.2	20	15
3/4	7.01	7.36	9.53	3.88	4.13	3.86	4.4	25	20
1	7.68	7.95	9.92	4.25	4.53	4.25	5.1	32	25
1-1/4	8.69	8.62	10.63	4.63	5.51	4.61	6.0	40	32
1-1/2	8.86	9.45	11.18	5.00	5.91	5.00	6.8	50	40
2	10.54	10.51	12.05	6.00	6.50	5.98	9.0	63	50

6. Parts list

Electric Actuator Type EA 05 complete for 3/8" – 2" valve sizes

115 VAC/50–60 Hz	198.150.723
230 VAC/50-60 Hz	198.150.722

Inch size	Intermediate Kits	Mounting Bracket Type 126	OD d mm	ID DN mm
3/8	198.000.260	161.126.005	16	10
1/2	198.000.260	161.126.005	20	15
3/4	198.000.261	161.126.007	25	20
1	198.000.262	161.126.008	32	25
1-1/4	198.000.263	161.126.009	40	32
1-1/2	198.000.264	161.126.010	50	40
2	198.000.265	161.126.011	63	50

