

BA27E012



ERHARD
BY TALIS

Operating and Maintenance Instructions

ERHARD – Multimed Premium Gate Valve DN 40 – DN 300 PN10/16 electric actuator

Contents

These operating instructions must always be used together with the standard operating instructions BA01E001 and BA01E011 !

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1 Structure

The electric multi-turn actuator is connected directly to the gate valve. The connecting dimensions of the multi-turn actuator comply with DIN ISO 5210.

2 Installation

See BA 27E011, Section 1.7 "Installation into the Pipeline."

The gate valve with electric multi-turn actuator is to be installed in the pipeline with the stem in a **vertical** position, **unless it has been specifically ordered for a different installation position.**

The pressure of the flow medium (differential pressure across the valve) must be checked. It should not be greater than specified in the order.

For gate valves with a firmly installed electric actuator, setting of the travel and torque switches is required before starting-up. If the electric actuator is installed later or if the gate valve is operated using a stem extension and headstock, it must be ensured during installation that the travel-switch setting complies with the gate valve position.

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For a stem extension, in order to achieve an even operational torque, stress-free and smooth running in the bearings must be ensured during installation.

The electric multi-turn actuator is to be protected from direct weather influences (e.g. by providing a roof cover).

3 Electric installation and connections

The relevant safety regulations (VDE/TAB etc.) and the notes of the manufacturers of the appliances concerning transportation, storage, starting-up and maintenance (operating instructions) must be observed.

The appliance manufacturers' suggested wiring and terminal diagrams are to be taken into account in the electrical connection. Available local voltages should be compared with the voltage data label on the appliance. After connection, the cover and the and conduit glands on the electric appliance are to be carefully closed and sealed.

Cut-off in the closing direction is dependent on the torque. Switching in the opening direction always is travel-dependent. The "open" and "closed" limit settings are signalled by means of the travel limit switches.

4 First start-up

After the electrical connection of the multi-turn actuator the gate valve should be moved manually to the centre position and the direction of rotation of the motor should be tested by means of short switching impulses and the polarity should be reversed if necessary.

The valve is closed by turning the handwheel in clockwise direction.

The travel switch "right" must respond approx. 1 handwheel turn before the "Closed" limit position, the travel switch "left" (Open) must respond approx. 1-3 handwheel turns before the "Open" limit position.

5 Operation

Electrical operation is effected by means of a push-button contactor switching to be installed by the customer. Emergency manual operation is to comply with the multi-turn actuator operating manual.

Limit switch settings for the Multamed Gate Valve Premium

The given torques are intended for the maximum permitted operational pressure.

Multamed Gate Premium

PN10

PN16

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DN	PN	turns/stroke	rorque switch [Nm]		AUMA typ	connection	Opening and Closing time [min/stroke] at speed of actuator [1/min]						
			CLOSE	OPEN			11	16	22	32	45	63	90
40	16	10	20	25	SA 07.2	F10 - B3 D=20	0,91	0,63	0,45	0,31	0,22	0,16	0,11
50		12,5	20	25			1,14	0,78	0,57	0,39	0,28	0,20	0,14
65		13	30	40	SA 07.6	F10 - B3 D=20	1,18	0,81	0,59	0,41	0,29	0,21	0,14
80		16	40	50			1,45	1,00	0,73	0,50	0,36	0,25	0,18
100		20	40	50			1,82	1,25	0,91	0,63	0,44	0,32	0,22
125		25	60	70			2,27	1,56	1,14	0,78	0,56	0,40	0,28
150	10 / 16	30	70	80	SA 10.2	F10 - B4 D=30	2,73	1,88	1,36	0,94	0,67	0,48	0,33
200		33	90	100			3,00	2,06	1,50	1,03	0,73	0,52	0,37
250		41,5	170	180	SA 14.2	F14 - B3 D=30	3,77	2,59	1,89	1,30	0,92	0,66	0,46
300		50	180	190			4,55	3,13	2,27	1,56	1,11	0,79	0,56
preferred closing time unless otherwise requested.													

6 Maintenance

6.1 Maintenance

The Gate Valve and electric multi-turn actuator are largely maintenance-free. The maintenance of the Gate Valve is to be done in accordance with BA 27E001, "Maintenance" section.

The maintenance of the electric actuator is to be done in accordance with the operating instructions of the manufacturer of the electric multi-turn actuator. A renewal of the lubricant is to be made after an operating time as given in these operating instructions. Recommended lubricant, see operating instructions of the manufacturer of the electric actuator. Following dismantling of the electric actuator for inspection reasons, the electric actuator's torque and travel limit switches must be reset (see the operating instructions of the manufacturer of the electric multi-turn actuator).

For flow medium "water", the recommended lubricant is Klüber Unisilikon L641.

For flow medium " water", silicone-free design, the recommended lubricant is Klüber Synth VR 69-252.

For flow medium "gas", the recommended lubricant is Klüber Nosol GBY2.

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Spare parts:

- Wedge rubberized PERB (NBR) or EPDM – W270, Pos.3 (4)
- Sealing in PERB (NBR) oder EPDM-W270, Pos.7
- Stem nut Pos. 6

- Pos. 9 O-Ring
- Pos. 11 O-Ring
- Pos. 12 O-Ring
- Pos. 13 Profilring
- Pos. 19 O-Ring

- Bonnet for electric actuator compl. with all insert parts.

7 Drawings

Assembly drawing prepared electric actuator 1E306378

Assembly drawing with electric actuator AUMA 1E306379

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