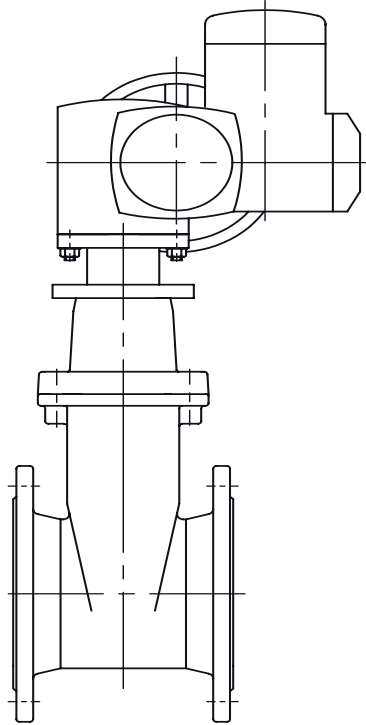


BA27E001



Operating and Maintenance Instructions

ERHARD Multamed Gate Valve 2 DN40-350

Electric Multi-turn Actuator

Index

These Operating Instructions must always be used in combination with the Standard Operating Instructions BA01E001 and BA27E000!

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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 27E000, 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.

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

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

Multamed Gate Valve 2

PN10

PN16

DN	PN	Turns per travel	Electric-actuator setting		Type of actuator
			OPEN (Nm)	CLOSE (Nm)	
40	16	10	40	35	Electric actuator
50	16	12,5	40	35	Electric actuator
65	16	13	60	55	Electric actuator
80	16	16	60	55	Electric actuator
100	16	20	60	55	Electric actuator
125	16	25	120	80	Electric actuator
150	16	30	120	90	Electric actuator
200	10/16	33	120	110	Electric actuator.
250	10/16	41,5	250	200	Electric actuator
300	10/16	50	250	210	Electric actuator
350	10/16	50	250	210	Electric actuator

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.

6.2 Spare parts

6.2.1 Gate set building set – wedge in PERB(NBR) or EPDM-W270, consisting of:

- Item 3 Gate with seat profile
- Item 6 Profile seal

6.2.2 Item 5 Stem nut in Aluminiumbronze 2.0973 or gray iron EN-JL1040 (GG25)

6.2.3 Seal set, consisting of:

- Item 9 Washer
- Item 10 O-ring
- Item 12 O-ring
- Item 13 O-ring
- Item 20 O-ring
- Item 21 Packing

6.2.4 Top of electric actuator mounted complete.
Spindle in 1.4021, Bonnet EKB
consisting of:

- Item 2 Bonnet
- Item 4 Spindle
- Item 5 Spindle nut
- Item 7 Cylinder head screw
- Item 8 Bearing top
- Item 9 Washer
- Item10 O-ring
- Item11 Bearing screw

- Item12 O-ring
- Item13 O-ring
- Item14 Hexagon bolt
- Item15 Washer
- Item16 Hexagon bolt DN40-200
- Item16 Stud bolt DN250-300
- Item17 Hexagon nut DN250-300
- Item18 Washer
- Item19 Parallel key
- Item20 O-ring
- Item21 Packing

7 Drawings

Multimed Oval Body Gate Valves PN10/16 DN40-350/300
 Multimed-Gate Valves, short body PN10/16 DN40-350/300

3E153470
 3E153470

