

Frese OPTIMA Compact Actuator HO-series DN15-DN300

EN Mounting instruction
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Intro:

This document describes installation of Frese OPTIMA Compact Actuators HO-series in connection with Frese OPTIMA Compact DN40-DN300 and Frese OPTIMA Compact HCR DN15-DN80.

Warning:

Hot media hazard. Before installing or removing actuator from valve or opening the valve, ensure that the valve control medium is isolated and relieve the pressure. Work should only be carried out by a competent engineer.

Mounting on valve

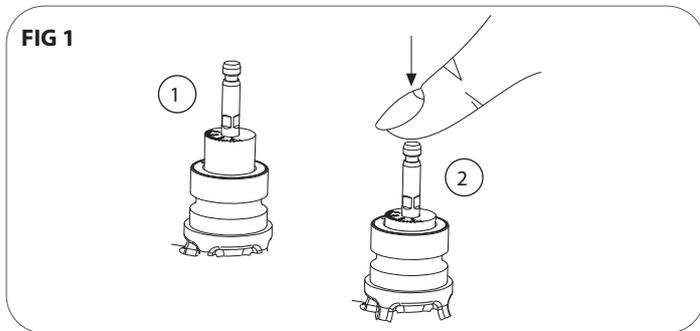


FIG 1: Press down the valve spindle before mounting the actuator on the valve.

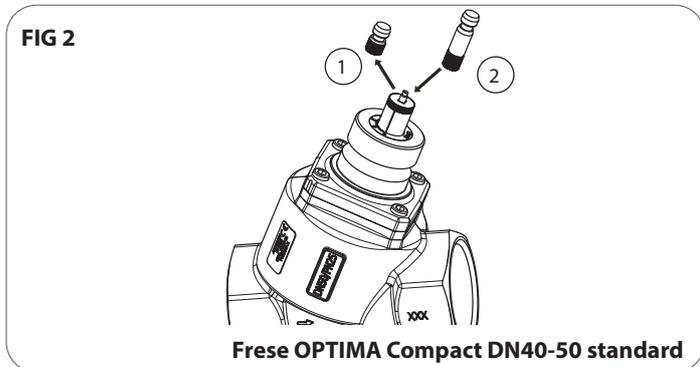


FIG 2: Before mounting the actuator on Frese OPTIMA Compact DN40-DN50 threaded versions, replace the short spindle mounted on the valve with the long spindle delivered with the actuator (Actuators type 58-8922 & 58-8923).

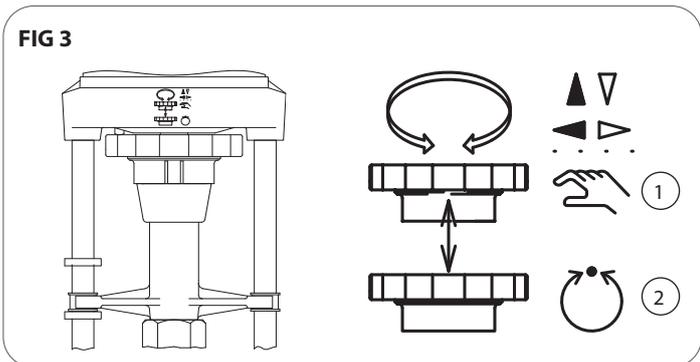


FIG 3: The actuator can be manual adjusted by the handwheel.
1. Push up the handwheel for manual operation.
2. Push down the handwheel for normal operation.

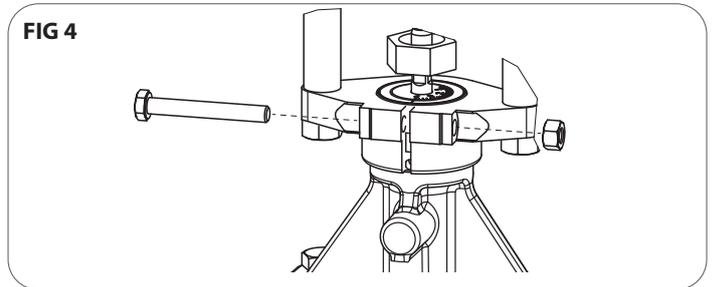


FIG 4: Mount the actuator on the valve neck and insert the bolt. Tighten the nut so the actuator is securely locked on the valve.

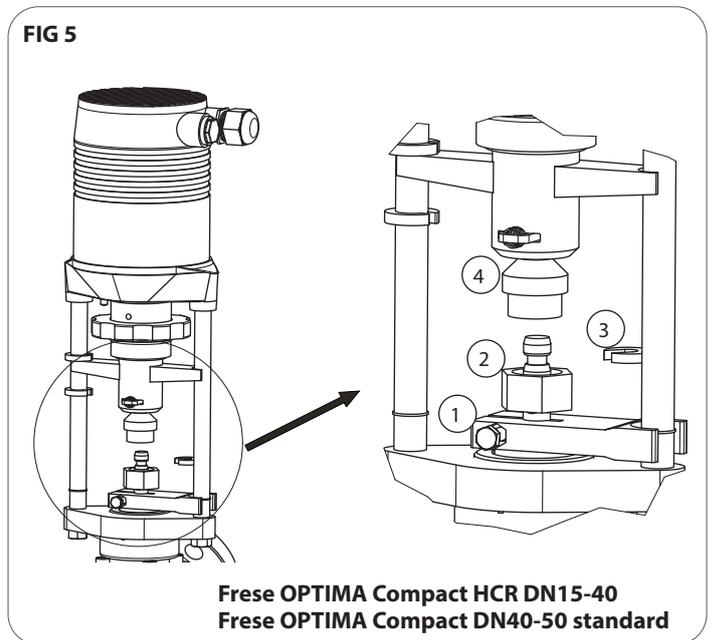


FIG 5: Spindle connection Frese OPTIMA Compact HCR DN15-DN40 and Frese OPTIMA Compact DN40-DN50 threaded versions:

1. Place the anti rotation device (1) over the valve spindle and around one of the actuator columns.
2. Place the nut (2) over the valve spindle.
3. Place the sliced disc (3) in the groove of the valve spindle.
4. Click the linkage adapter (4) into the actuator.
5. Assemble the nut (2) and the linkage adapter (4) and tightend it securely.

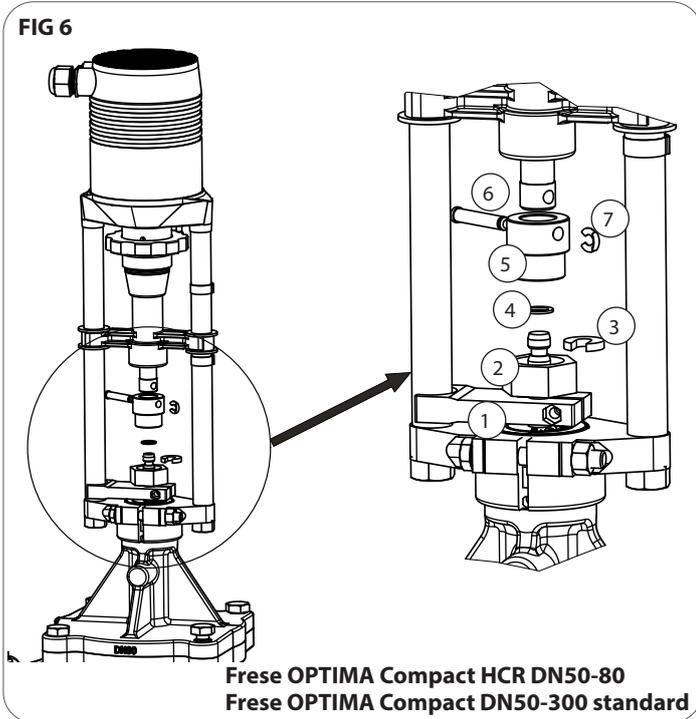


FIG 6: Spindle connection OPTIMA Compact HCR DN50-DN80 and OPTIMA Compact DN50-DN300 flanged versions.

1. Place the anti rotation device (1) over the valve spindle and around one of the actuator columns.
2. Place the lower nut (2) over the valve spindle.
3. Place the sliced disc (3) in the groove of the valve spindle.
4. Place the washer (4) on top of the valve spindle
5. Assemble the lower nut (2) with the upper nut (5) and tightend it securely.
6. Connect the upper nut (5) with the actuator spindle, with the use of the pin (6).
7. Secure the pin (6) with the locking washer (7)

Electrical wiring

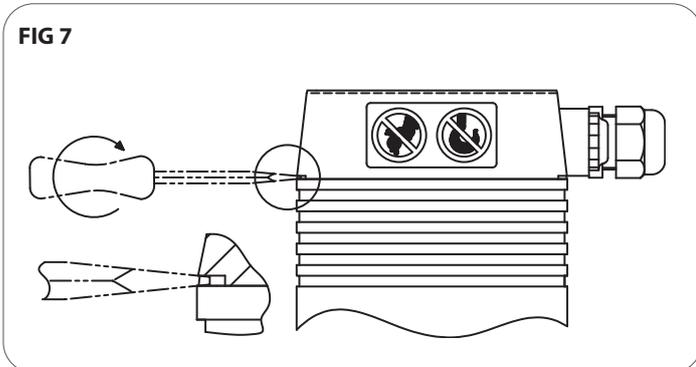


FIG 7: The top cover of the actuator can be removed by a screw driver. Place the screw driver in the groove and turn to open.

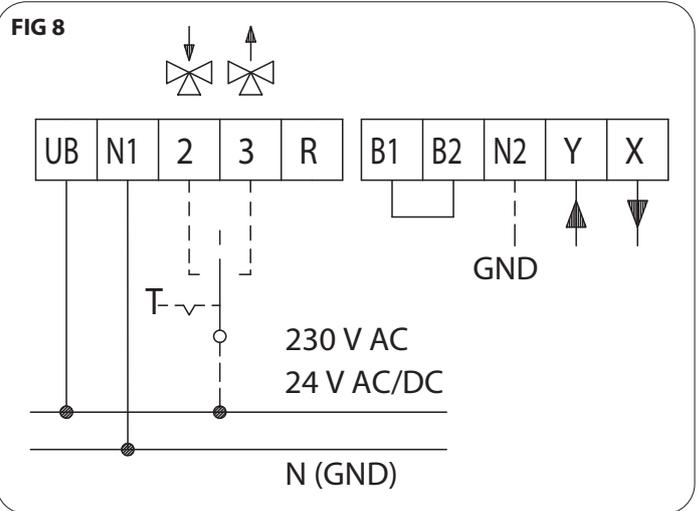


FIG 8:

Terminal

UB

Function

System potential 24 V AC/DC or 230V AC

N1

System neutral

2

Decrease (3-point control)

3

Increase (3-point control)

R

Response signal during manual mode

B1/B2

Binary input/Frost protection function

N2*

Zero potential of signals X, Y, R

Y

Input signal 0(2)-10VDC / 0(4)-20 mA

X

Feedback signal 0-10V or 0(4)-20 mA

Feedback 0(4)-20 mA (with PCB accessory)

Installation

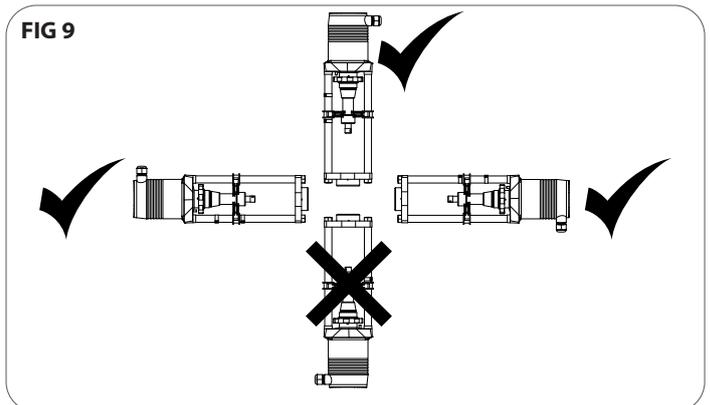


FIG 9: Actuator mounting positions.

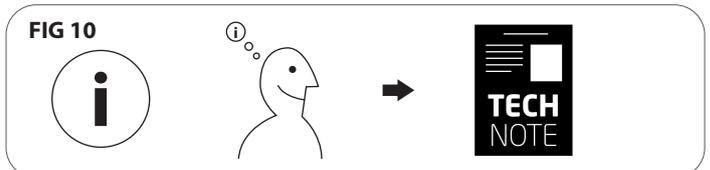


FIG 10: For setting of dip-switches and jumpers, please refer to the actuator HO-series Technote.