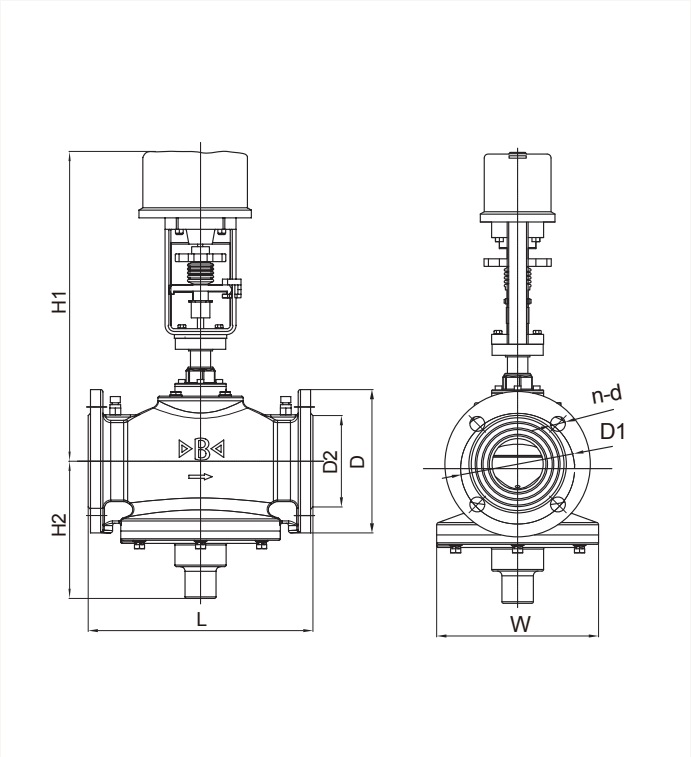
TBFX Pressure Independence Control Valve PN16 Flanged



Material specification

TBFX Series Pressure Independence Control Valve 2 1/2" to 6"		
No	**Component**	**Material**
1	Body	Ductile iron JS1040
2	Bonnet	Ductile iron JS1040
3	Seat	304 stainless steel
4	Disc	304 stainless steel
5	Stem	304 stainless steel
6	Scale bar	Brass C38000
7	Adjusting nut	Brass C38000
8	Diaphragm assembly	EPDM and 304 stainless steel
9	Spring	304 stainless steel

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Applicable standards:

- Design standard: Q/IBP 1-0001-2014.
- Flange standard: GB/T 17241.6 EN 1092.
- Threaded standard: EN 10226.1 - 10226.2.
- Face to face standard: GB/T 12221 EN 558-1.
- Pressure test standard: CJ/T 179.

Technical data:

- Nominal dimension: DN 32 - DN 150 (1.1/2" - 6").
- Nominal pressure: PN16.
- Work temperature: -5 °C to 85 °C.
- Shell test: 1.5 PN.
- Seat test: 1.1 PN.
- Suitable medium: Water, ethylene glycol, etc.

Features and benefits:

- Three functions in one: automatic electronic adjustment + pressure independent control + static balancing.
- Linear flow control.
- Uses straight travel plug disc, lower torque.
- Adjustable KVS allowing control of maximum flow rate.
- Wide differential pressure control range with precise flow control.
- Manufactured from high quality ductile iron.

Performance parameters

DN	Differential Pressure range KPa	Minimum flow m^3/h	Maximum flow m^3/h	Valve stroke mm	Actuator model
DN65	30 - 400	3.5	16	15	MD200Y-BA Actuator
DN80	30 - 400	4.0	27	15	MD200Y-BA Actuator
DN100	30 - 400	9.0	41	15	MD200Y-BA Actuator
DN125	30 - 400	15	50	30	MD300KY-BA Actuator
DN150	30 - 400	20	80	30	MD300KY-BA Actuator

TBFX Series Pressure Independent Control Valve dimensions valve + actuator (mm)

Order code	Size	DN	L	H1	H2	W	D	D1	D2	n-d	Weight (kg)
I0065CFDGMMSSO	2.1/2"	65	290	399	177	206	185	145	118	4-19	27.8
I0080CFDGMMSSO	3"	80	310	399	177	206	200	160	132	8-19	29.6
I0100CFDGMMSSO	4"	100	350	403	177	206	220	180	156	8-19	33.5
I0125CFDGMMSSO	5"	125	400	625	240	280	250	210	184	8-19	74.9
I0150CFDGMMSSO	6"	150	480	635	260	300	285	240	211	8-23	84.9

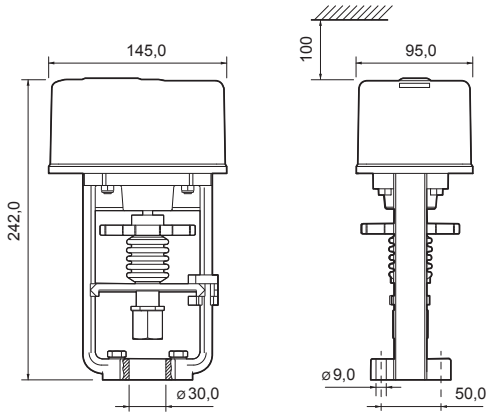
MD200Y-BA Actuator

Technical data:

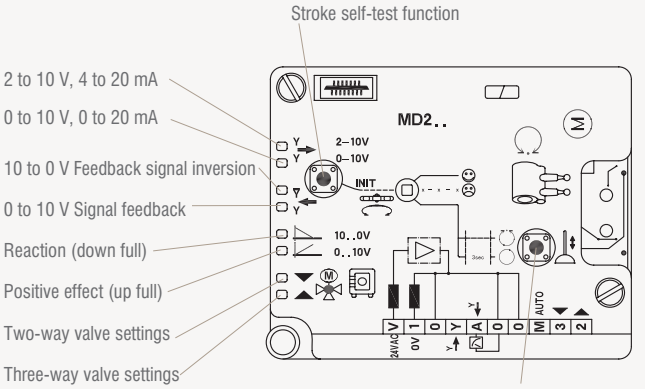
- Voltage: 24 V AC.
- Power: 4.2 VA.
- Closing torque: 850 N.
- Maximum stroke: 20 mm.
- Input signal: 0(2) - 10 V or 0(4) - 20 mA.
- Feedback signal: 0 to 10V.
- Work temperature: 0 to 50 °C.
- Protection grade: IP54.

Features and benefits:

- Multiple input and output signal selection options, allowing fast simple system configuration.
- Self calibration, actuator accurately calibrates stroke length.
- Block protection prevents the valve from sticking if it has not moved for a long period of time.
- Safe mode: the actuator will power off automatically once the actuator has fully opened.

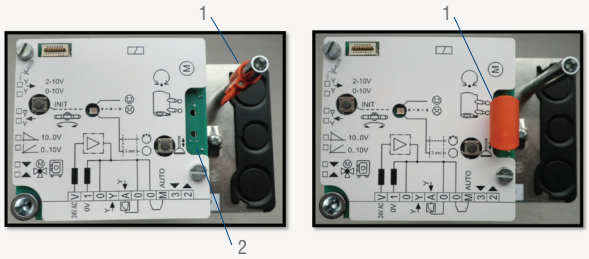


Function switch



Valve sticking protection switch: to prevent the valve sticking after a longer period of inactivity.

Safe model



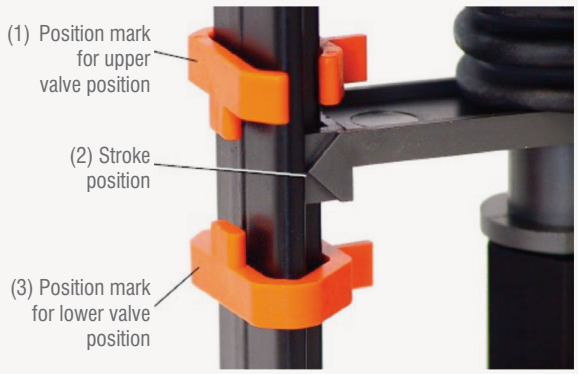
Knob (1) not inserted = manual mode

Knob (1) inserted = automatic mode

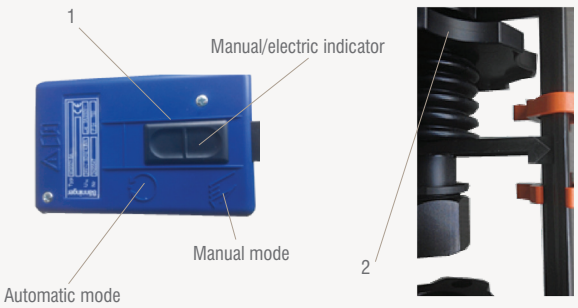
For safety reasons, the actuator automatically switches to manual mode when the cover is removed. To allow the commissioning technician to test functionality, the actuator can be switched to automatic mode using the included solenoid switch.

Remove the actuator cover and then insert the knob (1) into the PCB (2).

Stroke indicator



Operating instructions



MD200Y-BA electric actuator can be operated in manual or automatic modes. When manual mode is activated, the extended slide indicator allows this status to be recognized even in poorly lit areas. In manual mode the actuator can be set to the desired valve position using the handwheel. After manual mode is switched off, the actuator resumes automatic positioning.

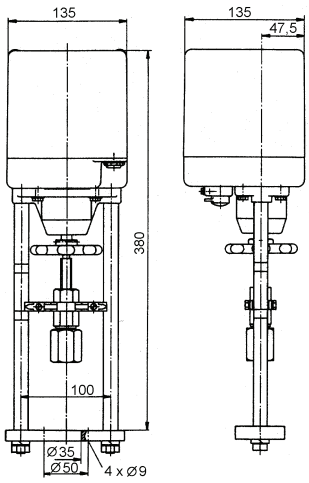
MD300KY-BA Actuator

Technical data:

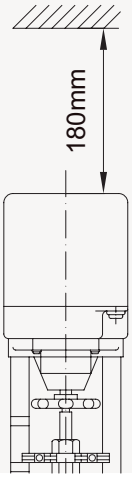
- Voltage: 24 V AC.
- Power: 10.6 VA.
- Closing torque: 2200 N.
- Maximum stroke: 30 mm.
- Input signal: 0(2) - 10 V or 0(4) - 20 mA.
- Feedback signal: 0 - 10 V.
- Work temperature: 0 °C to 50 °C.
- Protection grade: IP54.

Features and benefits:

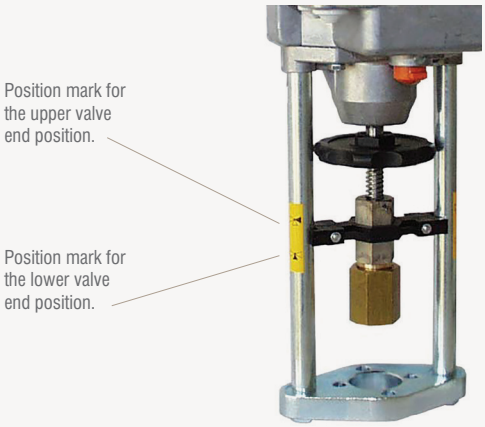
- Multiple input and output signal selection options, allowing fast simple system configuration.
- Self calibration, actuator accurately calibrates stroke length.
- Block protection prevents the valve from sticking if it has not moved for a long period of time.
- Safe mode: the actuator will power off automatically once the actuator has fully opened.



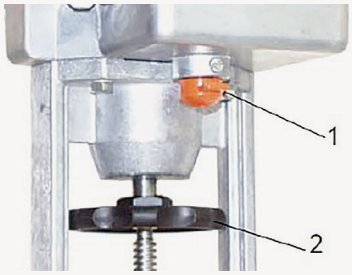
Installation space



Stroke indicator



Operating instructions



- Press the red button (1) and rotate button (quarter turn) to engage manual mode.
- The actuator position can then be adjusted manually by turning the handwheel (2).
- To return to automatic mode disengage the red button.