



MOTOR DRIVEN RATE VALVE

series **M 3531 C**

from 12 gCl₂/h to 15 kg Cl₂/h

- ⇒ **4 –20 mA PROPORTIONAL CONTROL INPUT**
- ⇒ **V-NOTCH PRECISION RATE VALVE**
- ⇒ **MODBUS COMMUNICATION**
- ⇒ **HIGH QUALITY STEPPER MOTOR**
- ⇒ **5-POINT VALVE CALIBRATION**
- ⇒ **LED INDICATION OF THE VALVE POSITION**
- ⇒ **MANUAL OR AUTOMATIC CONTROL**

GENERAL

Electronically controlled motor driven rate valve is designed for accurate feed of chlorine gas and other technical gases into water.

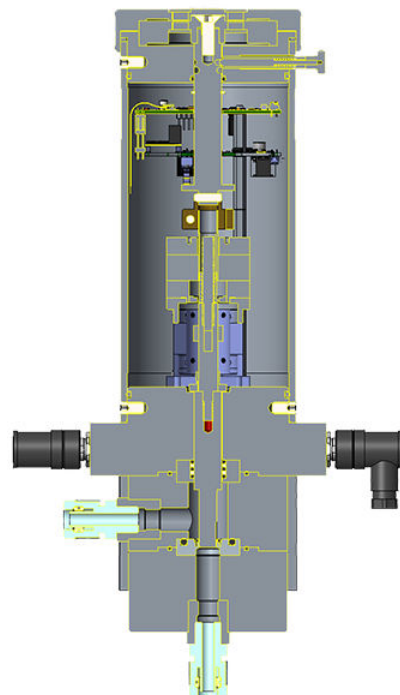
Made of **high quality materials**, resistant to high concentrations of aggressive gases. Built-in seals are made of fluorinated hydrocarbons (FKM, PTFE), materials resistant to aggressive gases.

Manual control over integrated keyboard and **full manual control** over top handwheel; **automatic control** over current or voltage input and via digital communications.

Fault signal is visible through the user interface or via a digital output.

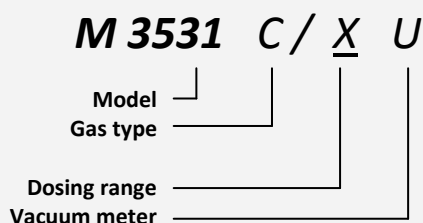
The non-linearity of the valve can be repaired by software in five points.

Built-in **security feature**: In case of power loss the valve has a battery backup that closes or opens the valve. It also allows completely mechanical handling in case of power loss.



Sectional view of the motor valve

ORDER CODES



OPTIONS:

- **Gas type:** "C" - Cl₂, "CO2" - CO₂, "S" - SO₂, "N" - NH₃
- **Dosing range*:** is chosen from technical data table below and the suitable number is written into the ordering code
- **Vacuum meter:** default

TECHNICAL DATA



Dosing range(X) * : (in g/h)

- 1 up to 12
- 2 up to 25
- 3 up to 100
- 4 up to 200
- 5 up to 500
- 6 up to 1000
- 7 up to 2000
- 8 up to 4000
- 9 up to 10000
- 15 up to 15000

Accuracy: 5%

Resolution : 0,5% capacity

Weight: 2.90 kg

Connections

Vacuum (up to 15m):

- 2 kg/h – d8/d10 - 3/8"
- 4 kg/h – d8/d10 - 3/8"
- 10 kg/h – d12/d16 - 5/8"
- 15 kg/h – d12/d16 - 5/8"

For larger vacuum lines, see table:
Chlorine vacuum line size requirements

ELECTRICAL DATA



Analog input:

- Current input
- 0 .. 4 – 20 mA (internal resistance 100 Ω)
- Voltage input
- 0 .. 2 – 10 V (internal resistance 100 KΩ)

Function:

Valve position = Analog input value

Digital input:

- Electrical function:
- Internal supply digital input.

- Maximum voltage
- 24 V
- Maximum current
- 1 mA
- Signal "1" at 10 V
- Signal "0" at 4 V

Function:

- Contact normally closed = Valve in operation
- Contact open = Valve failure

Analog output:

- Voltage
- 22 VDC
- Current output
- 4 – 20 mA

Function:

Analog output value = Valve position
 Analog output value < 3,6 mA or >21,6 mA indicating valve failure.

Digital output:

- Electrical function:
- Potential-free contact.
- Maximum voltage
- 30 VDC ali 24 VAC +10%
- Maximum current
- 200 mA

Function:

Valve failure (contact is open or closed via software)

Valve power supply: 24 VDC nominal, 20 - 30 VDC

Maximum consumption: 6 W