Automatic floor mounted cabinet chlorinator MR 420 C

- 4 –20 mA PROPORTIONAL CONTROL input
- Modbus COMMUNICATION
- 5-POINT VALVE CALIBRATION
- MANUAL or AUTOMATIC control
- Led indication of the valve position
- Vacuum indication
- High-quality stepper motor
- Simple installation, set up and start up



GENERAL

Floor mounted cabinet chlorinator series MR 420 C is a heavy duty feed unit, intended for accurate automatic or manual feed of chlorine gas. It is designed to accept control signal from controller (automatic control) but in case of need, it can simply be switched to manual control.

The unit MR 420 C consist of:

- Motor electrical rate valve 3531(automatic Version)
- ERB gas flow meter of corresponding capacity with manual / automatic
- rate valve Vacuum switch
- (high/low) Vacuum gauge
- Wall mounting board with piping
- DP regulator backpressure control regulator

Electromotive rate valve Series 3 is made of chlorine, compact plastic, resistant to high concentration of precision rate valve and quality driving motor. Gas flowmeter is also made of compact plastic and glass, resistant to high concentration of chlorine and precision manual rate valve. All seals are made of materials resistant to aggressive gases (FKM, PTFE, PVDF). Differential pressure regulator is available in case of long vacuum lines or fluctuating vacuum.

OPERATION PRINCIPLE

The floor mounted cabinet MR420 C is a precise automated vacuum device. Chlorine gas is not pushed, but sucked through the device. So gas enters into device under vacuum and goes through the gas flow meter, through the rate valve needle (on the motorized valve) where the desired quantity is adjusted. Then, gas enters the DP REGLATOR, where vacuum fluctuations are reduced. Last element is check valve that disables backflow and then chlorine gas under vacuum leaves the device and is transferred to ejector.

Automatic chlorinator is connected to control unit PLC.SCADA or WG AQUACON M5500 C AQUA Processor series M5700C from which command signal opens or closes the motor valve on chlorinator according to the signal received from water flow meter and/or residual chlorine analyser. In case of controller malfunction the feed rate can easily be set manually on the motor valve. In case of motor valve failure, manual feed can be adjusted by rate valve on the gas flow meter. Motor valve can then easily be dismounted from chlorinator. When repaired, it can easily be assembled back and set into operation.

ORDER CODES

MR 420 C / X U DP M HL

- Model
- Gas type
- Dosing range
- Vacuum gauge
- D.P. Regulator
- Motor valve
- High/ low vacuum switch

OPTIONS:

- Gas type: "C" – Cl2, "S" – SO2
- Dosing range (g/h):

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

- Vacuum gauge: yes"U", without it the letter is not written in the code
- **Differential pressure regulator:** optional, without it the letter is not written in the code
- Motor valve: yes"M", without it the letter is not written in the code
- High vacuum switch: yes "H", without it, the letters are not written in
- Low vacuum switch: yes "L", without it, the letters are not written in

TECHNICAL DATA

Dimensions: 1500 x 600 x 300 mm

Connections:

Vacuum (up to 15m):
2 kg/h – d8/d10
4 kg/h – d8/d10
10 kg/h – d12/d16
15 kg/h – d12/d16

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

ELECTRICAL DATA

Power supply: 24 V + 20 / -30%
Valve power supply: 24 VDC nominal, 20 - 30 VDC
Consumption: 30 mA
Limitation of current at the output Q1 and Q2: 220m
Sensor:
Area: MIN -100000 Pa (-100 kPa, -1 bar)
MAX 0 Pa
Accuracy: 1%
Alarm:
Operating mode: active HIGH, active LOW
Reference: area
Hysteresis: 1% .. 10% of the area

Digital output Q:
Operating mode:
-Off
-When the alarm activated 24 VDC, otherwise off
-When 0 VDC alarm turns on, otherwise off
-When the alarm activated 24 VDC, otherwise activated 0 VDC

Mechanical data:
Protection: IP 67
Accessories: PVC-U 16 (PN16)

MEASURE DRAWINGS

