



# AKN- FULL VACUUM AUTOMATIC CHLORINATOR

series **M 3610 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**
- ⇒ **MADE OF QUALITY MATERIALS**
- ⇒ **HIGH QUALITY STEPPER MOTOR**
- ⇒ **V-NOTCH PRECISION RATE VALVE**
- ⇒ **SIMPLE INSTALLATION, SET UP AND START UP**

## GENERAL

Automatic chlorinator series M 3610 C is a heavy duty feed unit intended for accurate manual or automatic feed of chlorine gas. It is designed to be controlled from controller (automatic control) or in case of need it can simply be switched to manual control.

The unit M 3610 C consist of:

- Motor rate valve series M 3531 C
- ERB gas flow meter of corresponding capacity with manual rate valve
- Vacuum switch (high/low)
- Vacuum gauge
- Wall mounting board with piping
- DP regulator

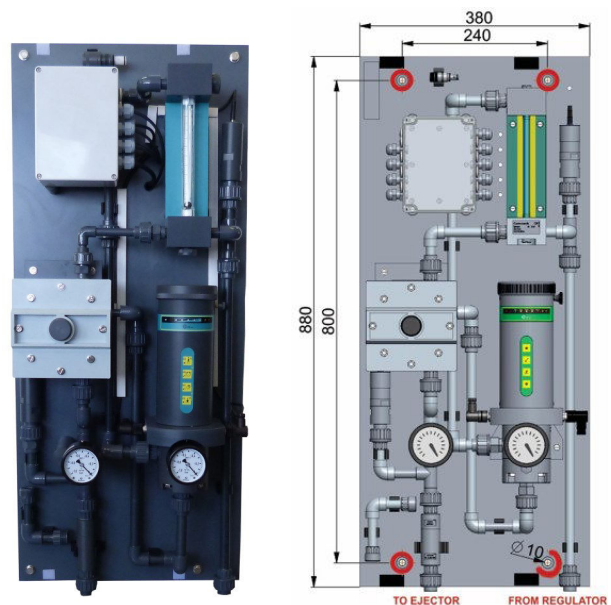
Electromotive rate valve Series M 3531 C is made of compact plastic, resistant to high concentration of chlorine, precision rate valve and quality driving motor. Gas flowmeter is also made of compact plastic and glass, resistant to high concentration of chlorine and precision manual rate valve. All seals 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

One must have in mind that M 3610 C is vacuum device. So gases are not pushed, but sucked through. Gas enters in inlet and goes through the gas flow meter. Next, through the needle of rate valve, desired quantity is provided. Then, gas enters the DP REGULATOR, where vacuum fluctuations are reduced. Last element is check valve that disables backflow.

Automatic chlorinator is connected to AQUACON M 5500 C or AQUAProcessor series M 5700 C which 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.

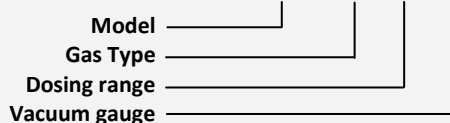
Motor valve can then easily be dismantled from chlorinator. When repaired, it can easily be assembled back and set into operation.



ORDER CODES



**M 3610 C/X U DP**



**OPTIONS:**

- Gas type: "C" – Cl<sub>2</sub>, "S" – SO<sub>2</sub>
- Dosing range\*: is chosen from technical data table below and the suitable number is written into the ordering code
- Vacuum gauge : yes "U", without it the letter is not written in the code
- Differential pressure regulator: yes "DP", without it the letter is not written in the code

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

**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"

**Weight:**

**6,5 kg**

**Dimensions:**

**896x 396 x ? mm**

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:** 220mA

**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

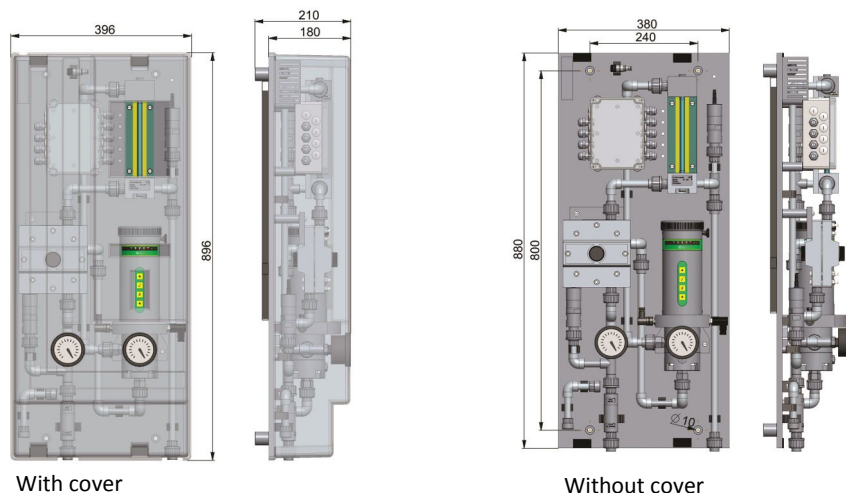
**Mechanical data:**

Protection: IP 67

Accessories: PVC-U 16 (PN16)

Datta for rate valve M 3531 C: see page 26!

MEASURE DRAWINGS



With cover

Without cover

BUL00065