# TIMER CONTROLLED CONDENSATE DRAIN – TD420MFC

## DESCRIPTION

TD420MFC timer controlled condensate drain has been developed for reliable removal of condensate or other liquid from high pressure compressed air system[1]. Discharge intervals can be set with two adjustment knobs. TD400M drain is available with a kit for easy installation and providing many mounting positions.

## APPLICATIONS[2]

- Air Compressor (piston or screw)
- After-cooler
- Cyclone condensate separator
- Pressure vessel/Air tank
- Air dryer
- Air filter

[1]For any other technical gas please contact us or your local dealer
[2]TD400MFC can be used in variety of applications. For applications not listed please contact us or your local dealer.

## TECHNICAL SPECIFICATIONS[3]

| | | |
|---|---|---|
| Operating temperature | 1,5 - 150 °C | 35 - 302 °F |
| Ambient temperature | 1,5 - 65 °C | 35 - 149 °F |
| Operating pressure [4] | 0 - 420 bar(g) | 0 – 6091 psi |
| Protection class | IP65 | |
| Supply voltage | 230V (±10%), AC, 50/60Hz | |
| Coil power | 8W | |
| Cable dimensions | 3 x 0,75mm$^2$ | |
| Mass (timer + valve) | 0,35kg | |
| Mass (fittings + needle valve) | 0,23kg | |
| Valve | Direct acting solenoid valve, 2/2, Normally closed | |
| Connector | DIN EN 175301-803 form A | |
| Time ON | 0,5s - 10s | |
| Time OFF | 0,5min - 45min | |
| Indicator | LED light | |

[3]Standard version (TD400MFC 230V AC)
[4] Version TD420MFC 24V DC only up to a pressure 400 bar(g) (5800 psi)

## MATERIALS

| | |
|---|---|
| Controller housing | PA6 GF30 |
| Screws | Steel-zinc plated |
| Coil | Epoxi coated |
| Valves | Stainless steel 1.4305 |
| Valve sealing | PEEK |
| Fittings | Stainless steel 1.4571 |
| Internal strainer mesh | Stainless steel |

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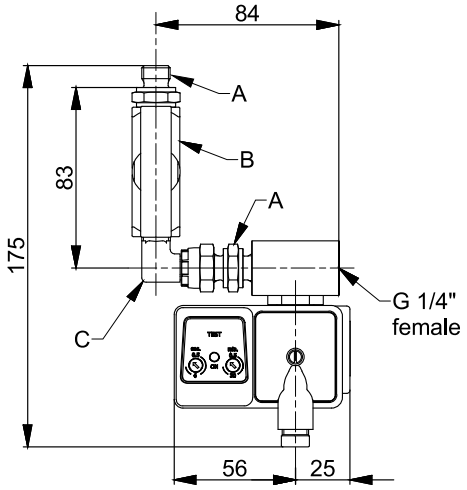
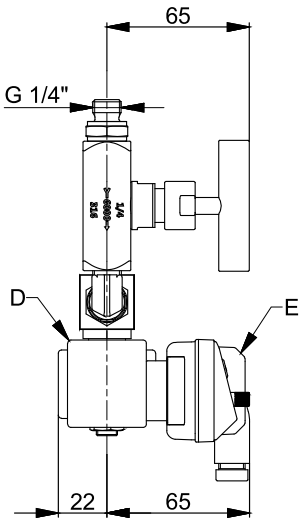
## PARTS LIST

| | |
|---|---|
| A | Nipple |
| B | Needle valve |
| C | Elbow |
| D | Electromagnetic valve |
| E | Timer |




## TYPES

| Type | Voltage | Power | MAX. Pressure [barg]/[psig] | Medium | Flow coefficient Kvs [l/min] |
|---|---|---|---|---|---|
| TD420MFC 230V A | 230V AC 50/60Hz | 8W | 420 / 6091 | Air, water, oil | 0.3 |
| TD420MFC 24V DC | 24V DC | 18W | 400 / 5800 | Air, water, oil | 0.3 |

## APPROXIMATE CALCULATION OF DISCHARGE CAPACITY

$$Q = Kvs \times \sqrt{\Delta p} \times \left( \frac{\frac{TimeON}{60}}{\frac{TimeON}{60} + Time\ OFF} \right)$$

Q-Discharge capacity [l/min], Kvs-Flow coefficient, $\triangle$p-pressure difference [bar], Time ON and Time OFF are determined by adjustment knobs, the range of each timer is specified in technical specification (page 1).

## MAINTENANCE

Once per week make a visual check of the fittings and valve with timer controller. Next to a visual check we must do timer and electromagnetic valve test by pressing the test button on timer controller. If necessary disassemble and clean the valve and fittings.