

Digital Timer (AF-TD) User Manual

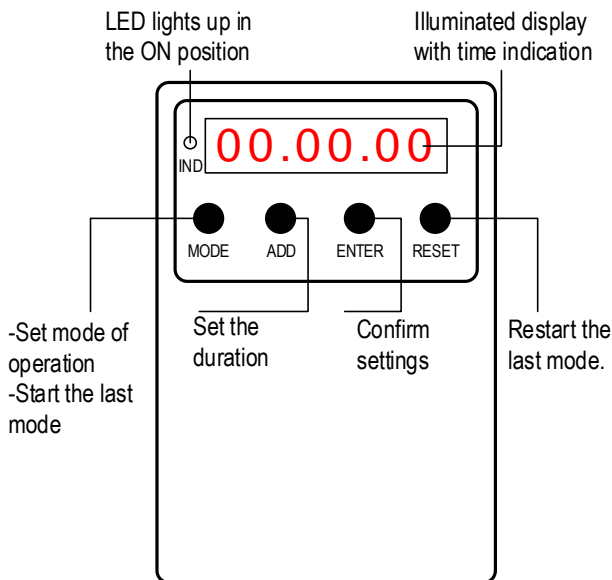
Robust digital timer for solenoid valves. The timer can be programmed as repeating ON-OFF, repeating OFF-ON or ON-OFF. To stop the program, press the MODE button or interrupt the power supply. To restart the program, press the RESET button. The last used program is stored in the memory and is active (in the initial state) when the power supply is started or reset button is pressed. The timer is compatible with the EN 175301-803 connector (formerly DIN 43650A).

Ideal for

- ➔ Automatic condensate drain
- ➔ Sample collection
- ➔ Lubricating systems
- ➔ Air dryers
- ➔ Shower timer
- ➔ Compressed air timer workshop



1. PRODUCT SPECIFICATION



Parameter	Value
Voltage	24-230V AC/DC 50Hz/60Hz
Current (continuous)	1A
Current (peak)	10A during 10 ms
Standby power consumption	4mA max
Operating temperature	-10°C+50°C
Estimated lifespan	3*10 ⁸ x switching
Time ON	from 0 up to 100 hours in steps of 1s
Time OFF	from 0 up to 100 hours in steps of 1s
Mode 1: ON-OFF ↻	
Mode 2: ON-OFF ↻	
Mode 3: ON-OFF	
Indicator	Red LED
Connector	EN 175301-803 (formerly DIN 43650A)
IP-rating	IP65-EN 60529

2. SAFETY INSTRUCTIONS

- ▶ This product is not a safety device and may not be used as such.
- ▶ Damage caused by improper use, falling, improper operating conditions or others, can cause that the solenoid valve is not functioning properly. Therefore, the product should not be used in applications where a malfunction can cause danger or damage.
- ▶ Correct transport, proper storage and installation, and proper use and maintenance, are essential for reliable and error-free operation.
- ▶ Check the compatibility of the medium used, temperature and other operating conditions with the materials and specifications of the product. It is the responsibility of the user to select the right product for the application.
- ▶ Never exceed the limits for current, voltage or frequency as indicated on the product and/or in the technical documentation.
- ▶ It is not allowed to change the construction of this device.
- ▶ Beware of electric shock when working with electrical equipment. The product only meets the protection class IP-65 if all seals, connectors and cables are properly connected.

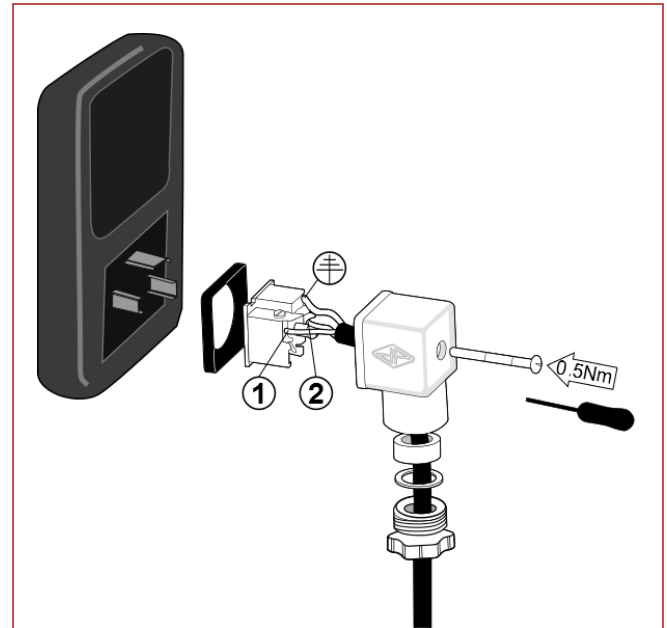
3. INSTALLATION

3.1. Safety instructions before starting

- ▶ It is recommended to install the product in a dry and ventilated environment. In moist environments, make sure that no moisture can penetrate the coil or device. Install the device in a safe way to avoid electric shock, burning or other injuries. Make sure the device is not in contact with or in the vicinity of flammable materials.
- ▶ Maintenance may only be performed when the system is not pressurized, electrically disconnected and cooled down.
- ▶ Turn off the power supply before performing any work on the device to prevent the risk of electrical shock and to prevent activation of the device. Never connect the power supply, until the installation is completed and the opening or closing of the valve is safe.
- ▶ The product is only safe when properly installed and operated by qualified persons. Please read the safety instructions and technical documentation carefully before installation, use or maintenance.
- ▶ Ensure a controlled commissioning after installation or maintenance.

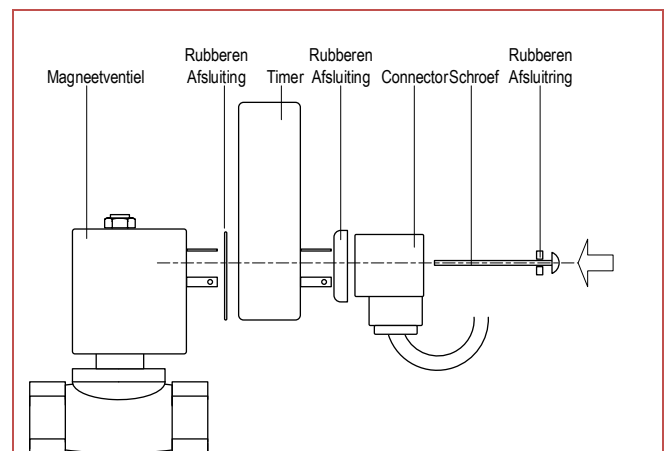
3.2. Electrical connection

- ▶ Connect the connectors (1) and (2) to the power supply (DC or AC). The polarity does not matter. Always connect the ground. In the following drawing the correct connection is shown.



3.3. Installation of the timer

- ▶ Install the timer between the solenoid valve and the connector as shown in the diagram below. It is important that all parts are clean and dry. Ensure that the rubber seals are well positioned to protect the construction against moisture. Tighten the screw until the rubbers close properly, but do not exceed 0.5Nm.





4. PROGRAMMING

The timer can be set with three different programs:

1. ON-OFF cycle (repeating)
2. OFF-ON cycle (repeating)
3. ON period (single period ON, after OFF)

4.1. ON-OFF cycle (repeating infinitely)

- ▶ Press the MODE button until the display is showing "On-Off".
- ▶ Press the ENTER button to set the ON period. The first two digits indicate the hours, the middle two digits indicate the minutes and the last two digits indicate the seconds. Press the ADD button to adjust the flashing digit. Press the ENTER button in order to go to the next digit. Once the last digit is set and the ENTER key is pressed, the first digit will flash. In the same way, set the OFF time period.
- ▶ Once the last digit is set and confirmed by pressing the ENTER key, the text "On-Off" will flash for about 3 seconds before the cycle starts. The indicator on the left side of the display lights during the period that the timer pass the current.
- ▶ By pressing the RESET button, the timer immediately turns ON while for three seconds "On-Off" appears on the display. After this, the cycle will start again (ON-OFF). The (temporary) interruption of the power supply has the same effect as the reset button; once the power is reconnected, the text mode "On-Off" will appear for three seconds while the timer pass the current. After this, the cycle will start again.
- ▶ By pressing the MODE button, the cycle is interrupted and the timer is in OFF position. In this case, the screen displays the current mode "on-off". Another mode can be set by pressing the MODE button several times.

4.2. OFF-ON cycle (repeating infinitely)

- ▶ Press the MODE button until the display is showing "Off-On".
- ▶ Press the ENTER button to set the OFF time. The first two digits indicate the hours, the middle two digits indicate the minutes and the last two digits indicate the seconds. Press the ADD button to adjust the flashing digit. Press the ENTER button in order to go to the next digit. Once the last digit is set and the

ENTER key is pressed, the first digit will flash. In the same way, set the ON time.

- ▶ Once the last digit is set and confirmed by pressing the ENTER key, the text "Off-On" will flash for 3 seconds before the cycle starts. The indicator on the left side of the display lights up during the period that the timer passes current.
- ▶ By pressing the RESET button, the timer immediately turns ON while for three seconds "Off-On" appears on the display. After this, the cycle will start again (OFF-ON). The (temporary) interruption of the power supply has the same effect as the reset button; once the power is reconnected, the text mode "Off-On" will appear for three seconds while the timer passes current. After this, the cycle will start again.
- ▶ By pressing the MODE button, the cycle is interrupted and the timer is in OFF position. In this case, the screen displays the current mode "Off-On". Another mode can be set by pressing the MODE button several times.

4.3. ON-OFF cycle (single period ON, after OFF)

- ▶ Press the MODE button until the display is showing "On".
- ▶ Press the ENTER button to set the ON period. The first two digits indicates the hours, the middle two digits indicates the minutes and the last two digits indicates the seconds. Press the ADD button to adjust the flashing digit. Press the ENTER button in order to go to the next digit.
- ▶ Once the last digit is set and confirmed by pressing the ENTER key, the text "-on-" will flash for about 3 seconds. During this period the timer passes current. After this, the ON period begins. The indicator on the left side of the display lights during the period that the timer pass the current. Once the ON period has elapsed, the timer will close the power supply to the solenoid valve and the display will show "-. -. -".
- ▶ By pressing the RESET button, the timer immediately turns ON while for three seconds "-on-" appears on the display. After, the ON period begins.
- ▶ By pressing the MODE button, the cycle is interrupted and the timer is in OFF position. In this case, the screen displays the current mode "-on-". Another mode can be set by pressing the MODE button several times.