Advantages/Benefits

- **Programming via DIP-switches and potentiometers**
- **4 functions**
- **Time range from 0.5s - 10h**
- **IP 65 rating**
- **Mains voltage displayed via LEDs**
- **Simple, space-saving installation instead of cable plug to DIN 43 650**
- **Flexible installation; cable outlet can be oriented in 90°-step intervals**
- **Low installation and wiring costs**

Design/Function

The timer unit Type 1078-1 can be fitted to all valves with the cable plug standard to DIN 43 650. This standard, developed by Bürkert, is used internationally.

The timer unit is internally programmable via DIP-switches and potentiometers. Four functions can be programmed. 2 LEDs display the mains voltage and valve status.

Applications

- Repeated valve timing control
- Irrigation systems
- Condensate drain of compressors or pipeline systems
- Repeated timing control of unsupervised processes
- Cost-effective alternative to relays or PLC's for repeated valve operation

bürkert Easy Fluid Control Systems

Technical Data

Operating voltages	12 - 24 V/ DC 24 - 48 V/ 50-60 Hz and DC 48 - 110 V/ 50-60 Hz and DC 110 - 230 V/ 50-60 Hz ± 10 %
Power consumption	max. 1.0 W
Switching load $I_{max.}$ =	2 A at supply voltage 12 - 24 V/ DC
$I_{max.}$ =	1.5 A at supply voltage 24 - 48 V/ 50-60 Hz and DC
$I_{max.}$ =	0,5 A at supply voltage 48 - 110 V/ 50-60 HZ and DC 110 - 230 V/ 50-60 Hz

Note
Terminal voltage and current type must always be compatible with the solenoid valve.

Cable outlet	4x 90°positioning
Poles	2-pole and earth
Outlet	connector pin standard to DIN 43 650
Contact	spade terminal (DIN 46 247/48)
Connection	3-pole terminal strip in the unit, wire diameter max. 1.5 $mm^{2.}$ PG-cable gland ø 6 to 7 mm
Rating	IP 65 air gaps and leakage paths to VDE 0100
Body material	polyamide
Mounting	cheesehead screw M 3 x 45 mm
Weight	approx. 60 g
Working temperature range	0 to +60 °C
Influence of temperature on response time	±5 % of full scale time range
Influence of voltage on response time	±1 % of full scale time range
Display	LED-connected power supply LED-energized load
Adjustment	Function and time range via DIP-switches, precision adjustment of response times via potentio-meters

Time setting ranges for t_{on} and t_{off}

Any of the time ranges for t_{on} and t_{off} can be selected. Within a selected time range t_{on} and t_{off} are adjustable via a potentiometer:

0,5 - 10 s
1,5 - 30 s
5,0 - 100 s
0,5 - 10 min
1,5 - 30 min
5,0 - 100 min
12,0 - 240 min
0,5 - 10 h

Delivery status ton = 0,5 - 10 s
toff = 0,5 - 10 s
function pulse generator

Version with extended time range on request:

0,1 - 2 s
0,5 - 10 s
5,0 - 100 s
0,5 - 10 min
3,0 - 60 min
0,3 - 6 h
1,2 - 24 h
5,0 - 100 h

AC voltage timers should always be isolated from the mains to change the function or time settings

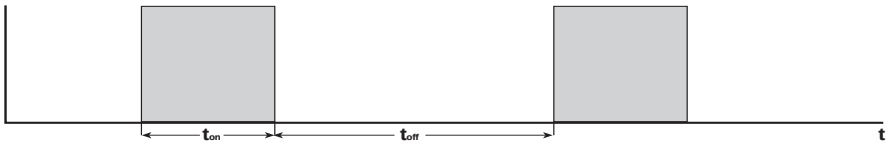
Functions

Operating Voltages

Signal:

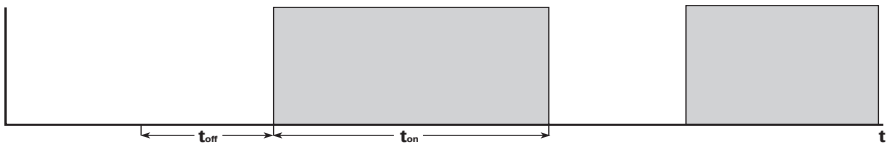
Cycler: starting with “ON”

The connected valve is switched-t_{on} and t_{off} periodically according to the set times t_{on} and t_{off}. The “cycler” function starts with t_{on}.



Inverted cycler :

The circuit function of the cycler is reversed i.e. "Inverted cycler" starts with t_{off}.

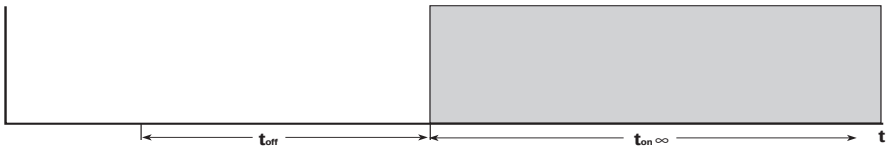


Switch-on impulse

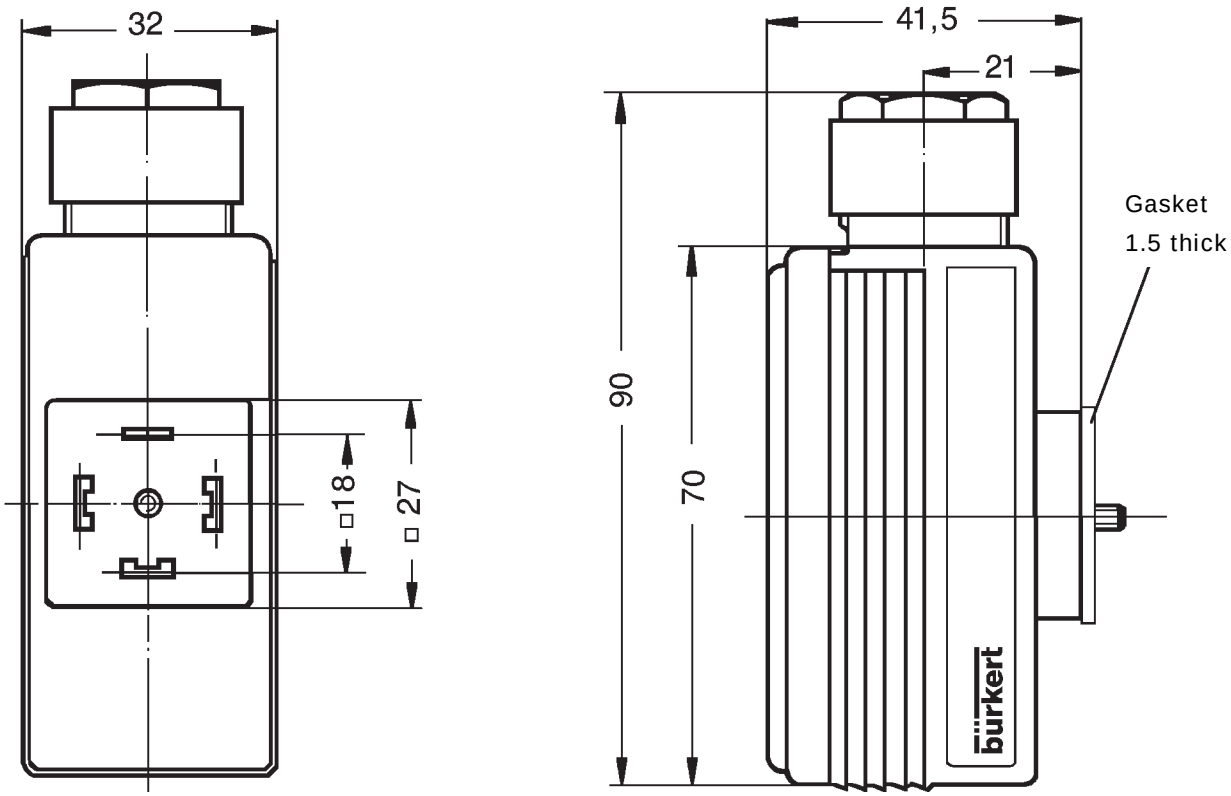
Once energized, the connected valve is operated for the pre-set time (t_{on}). Then, the valve switches t_{off} until it is energized again.

Switch-on delay

Once energized, the connected valve is only switched t_{on} after the expiration of the preset time (t_{off}), for the duration of the supply voltage being applied.



Dimensions in mm



Ordering Chart (Other Versions on Request)

Voltage			Order-No.
AC	110 - 230 V/	(50-60 Hz)	060 620 N
AC, DC	24 - 48 V/	(50-60 Hz/ =)	060 621 B
AC, DC	48 - 110 V/	(50-60 Hz/ =)	414 900 U
DC	12 - 24 V/	(=)	060 647 M
Version with extended time range			
AC, DC	48 - 110 V/	(50-60 Hz/ =)	060 668 S
AC	110 - 230 V/	(50-60 Hz)	060 659 Z

Time control for impulse valves on request.