# G2ZIF20

Manufacturer data sheet: V.077

## Timing relay - Multifunction

Status: Available Data sheet created: 01.07.2025

**Item Number:** 120200 - **Serie:** Gamma - **EAN:** 9008662000278



- Timer relay GAMMA series
- Multifuntion
- 7 functions clock (2 times adjustable)
- 10 time ranges
- Remote potentiometer connection
- Potential free control contact
- Supply voltage selectable via transformer module
- 2 changeover contacts
- construction width 22,5mm
- Industrial design

## Description

Precise and reliable switching and control in industrial and commercial applications.

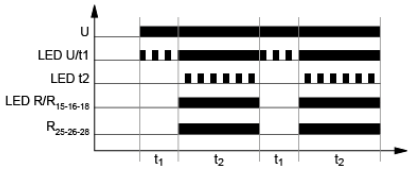
## General information

| | |
|---|---|
| **Short description** | Multifunction (7 fct.), 2 changeover contacts |
| **Item Number** | 120200 |
| **EAN** | 9008662000278 |
| **Main category** | Timing Relays |
| **Series** | Gamma |
| **Type** | G2ZIF20 |
| **Design** | Industrial design |
| **Supply** | 12-400V a.c. |
| **Dimensions** | 22.5 x 90 x 103 mm |

## Functions and measurands

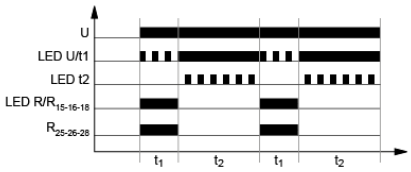
The selection of the time function must be made in the de-energized state.

**Amount of functions** 7



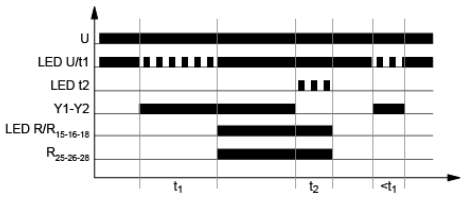

**Asymmetric flasher pause first-G2ZIF20 (Ip)**

When the supply voltage U is applied, the set interval t1 begins (green LED U/t1 flashes). After the interval t1 has expired (green LED U/ t1 illuminated), the output relay R switches into on-position (yellow LED illuminated) and the set interval t2 begins (green LED t2 flashes). After the interval t2 has expired (green LED t2 not illuminated), the output relay switches into off-position (yellow LED not illuminated). The output relay is triggered at the ratio of t1:t2 until the supply voltage is interrupted.



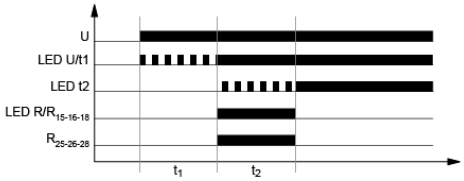

**Asymmetric flasher pulse first-G2ZIF20 (Ii)**

When the supply voltage U is applied, the output relay R switches into on-position (yellow LED illuminated) and the set interval t1 begins (green LED U/t1 flashes). After the interval t1 has expired (green LED U/t1 illuminated), the output relay switches into off-position (yellow LED not illuminated) and the set interval t2 begins (green LED t2 flashes). After the interval t2 has expired (green LED t2 not illuminated), the output relay switches into on-position (yellow LED illuminated). The output relay is triggered at the ratio of t1:t2 until the supply voltage is interrupted.



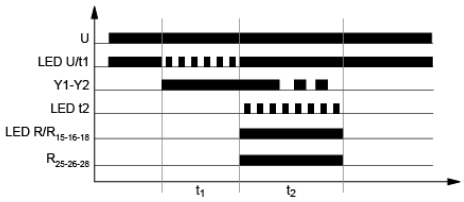

**ON delay and OFF delay with control input - G2ZIF20 (ER)**

The supply voltage U must be constantly applied to the device (green LED U/t1 illuminated). When the control contact S is closed, the set interval t1 begins (green LED U/t1 flashes). After the interval t1 has expired (green LED U/t1 illuminated), the output relay R switches into on-position (yellow LED illuminated). If the control contact is opened, the set interval t2 begins (green LED t2 flashes). After the interval t2 has expired (green LED t2 not illuminated) the output relay switches into off-position (yellow LED not illuminated). If the control contact is opened before the interval t1 has expired, the interval already expired is erased and is restarted with the next cycle.



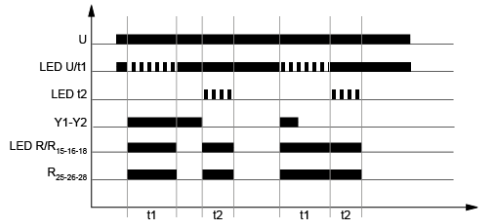

**ON delay and single shot leading edge voltage controlled-G2ZIF20 (EWu)**

When the supply voltage U is applied, the set interval t1 begins (gree LED U/t1 flashes). After the interval t1 has expired (green LED U/t1 illuminated), the output relay R switches into on-position (yellow LED illuminated) and the set interval t2 begins (green LED t2 flashes). After the interval t2 has expired (green LED t2 not illuminated), the output relay switches into off-position (yellow LED not illuminated). If the supply voltage is interrupted before the interval t1+t2 has expired, the interval already expired is erased and is restarted when the supply voltage is next applied.

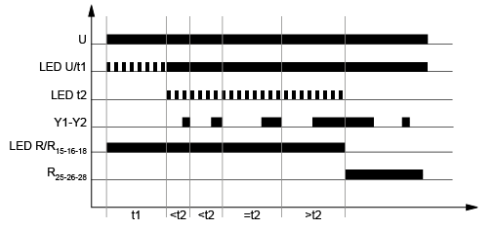



**ON delay and single shot leading edge with control input - G2ZIF20 (EWs)**

The supply voltage U must be constantly applied to the device (green LED U/t1 illuminated). When the control contact S is closed, the set interval t1 begins (green LED U/t1 flashes). After the interval t1 has expired (green LED U/t1 illuminated), the output relay R switches into on-position (yellow LED illuminated) and the set interval t2 begins (green LED t2 flashes). After the interval t2 has expired (green LED t2 not illuminated) the output relay switches into off-position (yellow LED not illuminated). During the interval, the control contact can be operated any number of times. A further cycle can only be started when the cycle run has been completed.




**Single shot leading and single shot trailing edge with control input - G2ZIF20 (WsWa)**
The supply voltage U must be constantly applied to the device (green LED U/t1 illuminated). When the control contact S is closed, the output relay R switches into on-position (yellow LED illuminated) and the set interval t1 begins (green LED U/t1 flashes). After the interval t1 has expired (green LED U/t1 illuminated), the output relay R switches into off-position (yellow LED not illuminated). If the control contact is opened, the output relay again switches into on-position (yellow LED illuminated) and the set interval t2 begins (green LED t2 flashes). After the interval t2 has expired (green LED t2 not illuminated) the output relay switches into off-position (yellow LED not illuminated). During the interval, the control contact can be operated any number of times.




**Pulse sequence monitoring-G2ZIF20 (Wt)**
When the supply voltage U is applied, the set interval t1 begins (green LED U/t1 flashes) and the output relay R1 (15-16-18) switches into on-position (yellow LED illuminated). After the interval t1 has expired (green LED U/t1 illuminated), the set interval t2 begins (green LED t2 flashes). So that the output relay R1 remains in on-position, the control contact must be closed and opened again within the set interval t2. If this does not happen, the output relay R1 switches into off-position (yellow LED not illuminated) and the output relay R2 (25-26-28) switches into on-position. All further pulses at the control contact are ignored. To restart the function the supply voltage must be interrupted and re-applied.

## Time ranges

| | | | |
|---|---|---|---|
| **Number Of Areas** | 10 | | |
| | **Time range** | **Adjustment range** | |
| | 1s | 50ms | 1s |
| | 3s | 0,15s | 3s |
| | 10s | 0,5s | 10s |
| | 30s | 1,5ms | 30s |
| **Time ranges** | 60s | 3s | 60s |
| | 180s | 9s | 180s |
| | 10min | 0,5min | 10min |
| | 60min | 3min | 60min |
| | 10h | 0,5min | 10h |
| | 100h | 5h | 100h |

## Indicators

| | |
|---|---|
| **Supply/time lapse 1** | Green LED U/t1 ON: Supply voltage applied |
| **Supply/time lapse 2** | Green LED U/t1 flashes: Display of timeout t1 |
| **Supply/time lapse 3** | Green LED t2 flashes: Display of timeout t2 |
| **Relay state** | Yellow LED ON/OFF: output relay position |

## Mechanical design

| | |
|---|---|
| **Housing material** | made of self-extinguishing plastic |
| **Housing - protection degree** | IP40 |
| **Mounting** | top hat rail TH 35 7,5-15 according to IEC 60715:2017 / EN 60715:2017 |
| **Terminals/connections** | Touch-proof clamping yoke terminals according to DGUV 3 (Screwdriver PZ1 required) |
| **Terminals - protection degree** | IP20 |
| **Mounting position** | any |
| **Max. Tightening Torque** | 1 Nm |
| **Terminal capacity** | • 1 x 0.5 to 2.5mm² with/without ferrule<br>• 1 x 4mm² without wire end ferrule<br>• 2 x 0.5 to 1.5mm² with/without end sleeves<br>• 2 x 2.5mm² flexible without ferrules |

## Supply circuit

| | |
|---|---|
| **Terminals/connections** | A1-A2 (galvanically isolated) |
| **Supply voltage a.c.** | 12 ... 400 V |
| **Supply voltage tolerance a.c.** | According to power supply unit specification |
| **Rated frequency [Hz]** | laut Angabe Netzteil |
| **Rated consumption a.c.** | 1,5 W / 2 VA |
| **Drop-out voltage** | >30% the supply voltage |
| **Overvoltage category** | III (IEC 60664-1) |
| **Rated surge voltage** | 4 kV |

## Output curcuit

| | |
|---|---|
| **Type** | Relay |
| **Contact 1** | 1 changeover contacts |
| **Terminals 1** | 15-16-18 |
| **Contacts 2** | 1 changeover contact |
| **Terminals/connections 2** | 25-26-28 |
| **Rated voltage** | 250 V a.c. |
| **Fuse Protection** | 5A quick |
| **Mechanical life** | 20 x $10^6$ Switching cycles |
| **Electrical life** | 2 x $10^5$ switching cycles with (1000VA) resistive load |
| **Switching frequency** | max. 60/min at 100VA resistive load |
| **Switching frequency 2** | max. 6/min at 1000VA resistive load (according to IEC 60947-5-1) |
| **Rated surge voltage** | 4 kV |
| **Overvoltage category** | III (nach IEC 60664-1) |

## Control input

| | |
|---|---|
| **Terminals/connections** | Bridge Y1-Y2 |
| **Control voltage** | max. 5V |
| **Loadable** | No |
| **Maximum line length** | 10 m |
| **Minimum control pulse length a.c.** | min. 50 ms (außer Funktion Wt), min. 7ms (nur Funktion Wt) |

## Accuracy

| | |
|---|---|
| **Base accuracy** | ±1 % (from full scale) at 1 MOhm Remote potentiometer |
| **Adjustment accuracy** | <=5 % (from full scale) at 1 MOhm Remote potentiometer |
| **Repetition accuracy** | <0.5 % or ±5 ms |
| **Temperature influence** | ≤0.01 % / °C |

## Remote potentiometer

| | |
|---|---|
| **Info** | The remote potentiometer is not included in the scope of delivery. When connecting a remote potentiometer, the internal potentiometer will be deactivated! |
| **Connection** | 1MΩ potentiometer (type RONDO R2),terminals Y2-Z1 or Y2-Z2 |
| **Cable type** | twisted pair or twin wires |
| **Control voltage** | max. 5V |
| **Short circuit current** | max. 5□A |
| **Cable length** | max. 5m |

## Ambient conditions and general specifications

| | |
|---|---|
| **Ambient temperature IEC** | -25 ... +55 °C ( IEC 60068-1) |
| **Ambient temperature UL** | -25 ... +40 °C (UL 508) |
| **Storage temperature** | -25 ... +70 °C |
| **Transport temperature** | -25 ... +70 °C |
| **Relative humidity** | 15 ... 85 % (IEC 60721-3-3 class 3K3) |
| **Vibration resistance** | 10 ... 55Hz 0.35mm (IEC 60068-2-6) |
| **Shock resistance** | 15g 11ms (IEC 60068-2-27) |
| **Pollution degree** | 2, pollution level can be increased by installation in suitable enclosures (according to IEC 60664-1) |

## Logistics

| | |
|---|---|
| **Minimum Quantity** | 1 |
| **Tariff Number** | 85364900 |
| **EAN** | 9008662000278 |
| **Country of Origin** | AT |
| **Product Weight (g)** | 142 |

## Available declarations / conformities

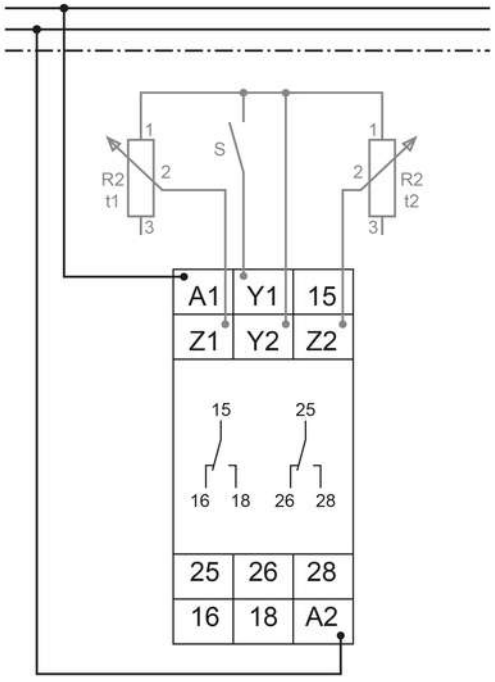
| | |
|---|---|
| **EAC** | ✓ |
| **CE** | Open document |
| **UL** | Open document |
| **c(UL)** | Open document |
| **REACH** | Open document |
| **WEEE** | Open document |
| **TSCA** | Open document |
| **RoHs** | Open document |
| **CMRT** | Open document |

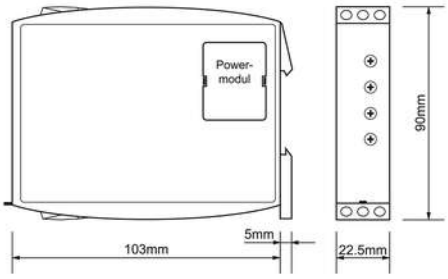
## CAD Files

| | |
|---|---|
| **STEP_G2_TRAFO_en.STEP** | Download file |
| **STEP_G2_en.STEP** | Download file |

## Media & drawings










**Tele Haase Steuergeräte Ges.m.b.H**
Vorarlberger Allee 38
1230 Vienna
Austria

CALL US +43 / 1 / 614 74 - 0
ONLINE SUPPORT support@tele-haase.at

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