



GAMMA series

Zoom voltage 24 to 240V AC/DC

2 change-over contacts

Width 22.5mm

Industrial design



## Technical data

### 1. Functions

S Star-Delta start-up

### 2. Time ranges

Start-up time

Time range	Adjustment range	
10s	500ms	10s
30s	1500ms	30s
1min	3s	1min
3min	9s	3min

Transit time

Time range (fixed)
40ms
60ms
80ms
100ms

### 3. Indicators

Green LED ON: indication of supply voltage  
 delta-contactor in on-position (terminals 25-28)

Green LED flashes: indication of star-time

Yellow LED ON/OFF: indication of star-contactor (terminals 15-18)

### 4. Mechanical design

Self-extinguishing plastic housing, IP rating IP40  
 Mounted on DIN-Rail TS 35 according to EN 60715  
 Mounting position: any  
 Shockproof terminal connection according to VBG 4 (PZ1 required), IP rating IP20  
 Tightening torque: max. 1Nm  
 Terminal capacity:

- 1 x 0.5 to 2.5mm<sup>2</sup> with/without multicore cable end
- 1 x 4mm<sup>2</sup> without multicore cable end
- 2 x 0.5 to 1.5mm<sup>2</sup> with/without multicore cable end
- 2 x 2.5mm<sup>2</sup> flexible without multicore cable end

### 5. Input circuit

Supply voltage:  
 24 to 240V AC/DC terminals A1-A2 (galvanically separated)

Tolerance:

24 to 240V DC	-20% to +25%
24 to 240V AC	-15% to +10%

Rated frequency:

24 to 240V AC	48 to 400Hz
48 to 240V AC	16 to 48Hz

Rated consumption: 4.5VA (1W)  
 Duration of operation: 100%  
 Reset time: 500ms  
 Wave form for AC: Sinus  
 Residual ripple for DC: 10%  
 Drop-out voltage: >15% of the supply voltage  
 Overvoltage category: III (in accordance with IEC 60661-1)  
 Rated surge voltage: 4kV

### 6. Output circuit

2 potential free change-over contacts  
 Rated voltage: 250V AC  
 Switching capacity: 750VA (3A / 250V AC)  
 If the distance between the devices is less than 5mm!

Switching capacity: 1250VA (5A / 250V AC)  
 If the distance between the devices is greater than 5mm!

Fusing: 5A fast acting  
 Mechanical life: 20 x 10<sup>6</sup> operations  
 Electrical Life: 2 x 10<sup>5</sup> operations at 1000VA resistive load  
 max. 60/min at 100VA resistive load  
 max. 6/min at 1000VA resistive load  
 (in accordance with IEC 60947-5-1)  
 III (in accordance with IEC 60664-1)  
 Overvoltage category:  
 Rated surge voltage: 4kV

### 7. Accuracy

Base accuracy: ±1% (of maximum scale value)  
 Frequency response: -  
 Adjustment accuracy: ≤5% (of maximum scale value)  
 Repetition accuracy: <0.5% or ±5ms  
 Voltage influence: -  
 Temperature influence: ≤0.01% / °C

### 8. Ambient conditions

Ambient temperature: -25 to +55°C (in accordance with IEC 60068-1)  
 -25 to +40°C (in accordance with UL 508)

Storage temperature: -25 to +70°C  
 Transport temperature: -25 to +70°C  
 Relative humidity: 15% to 85%  
 (in accordance with IEC 60721-3-3 class 3K3)

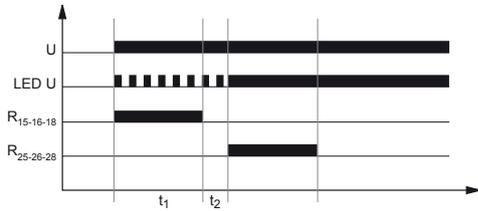
Pollution degree: 3 (in accordance with IEC 60664-1)  
 Vibration resistance: 10 to 55Hz 0.35mm  
 (in accordance with IEC 60068-2-6)

Shock resistance: 15g 11ms (in accordance with IEC 60068-2-27)

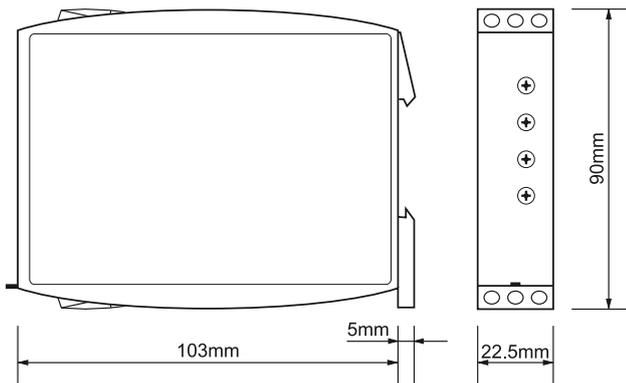
## Functions

### Star-Delta start-up (S)

When the supply voltage U is applied, the star-contact switches into on-position (yellow LED illuminated) and the set star-time  $t_1$  begins (green LED flashing). After the interval  $t_1$  has expired (green LED illuminated) the star-contact switches into off-position (yellow LED not illuminated) and the set transit-time  $t_2$  begins. After the interval  $t_2$  has expired the delta-contact switches into on-position. To restart the function the supply voltage must be interrupted and re-applied.



## Dimensions



## Connections

