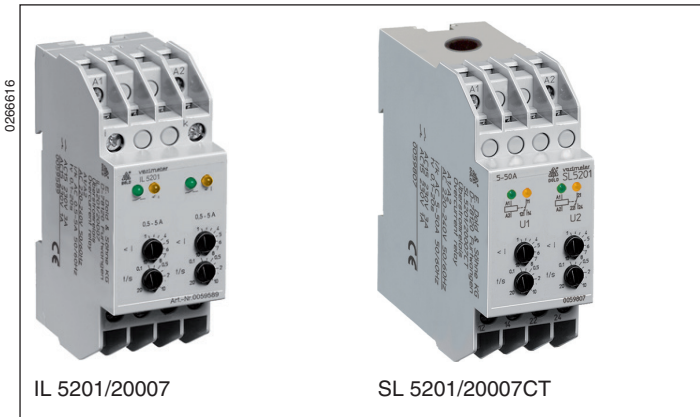


## VARIMETER

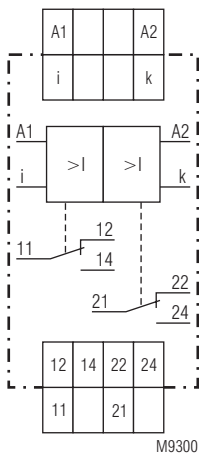
### Overcurrent Relay

IL 5201/20007, SL 5201/20007CT



- According to IEC/EN 60 255, DIN VDE 0435-303
- 2 independent relays in once enclosure
- 2 measuring ranges from 0.5 to 5 A
- Adjustable response values
- Fixed hysteresis
- Adjustable switching delay
- Closed circuit operation
- LED indicators
- with auxiliary voltage
- galvanic separation between Auxiliary Circuit and Measuring Circuit
- **2 models available:**
  - IL 5201:** 63 mm deep with terminals near to the bottom to be mounted in consumer units or industrial distribution systems according to DIN 43 880
  - SL 5201:** 100 mm deep with terminals near to the top to be mounted in cabinets with mounting plate and cable ducts
- Width: 35 mm

### Circuit Diagram



### Approvals and Marking



### Application

Overcurrent detection in single phase or 3-phase voltage systems

### Indicators

LEDs green: on, when supply voltage connected  
 LEDs yellow: on, when output relay active

### Technical Data

#### Measuring Circuit

**Measuring ranges**  
 IL 5201/20007: 2 separate Measuring Circuits 0.5 ... 5 A adjustable  
 SL 5201/20007CT: 2 separate Measuring Circuits 5 ... 50 A adjustable

**Nominal frequency:** 50 ... 400 Hz

**Thermal continuous current ambient-temperature:** 20 A / 50°C  
 15 A / 60°C

**Temperature influence:** ≤ 0.05 % / K

**Reaction time:** see characteristic switching delay

**Internal resistance:** < 5 mΩ

### Setting Ranges

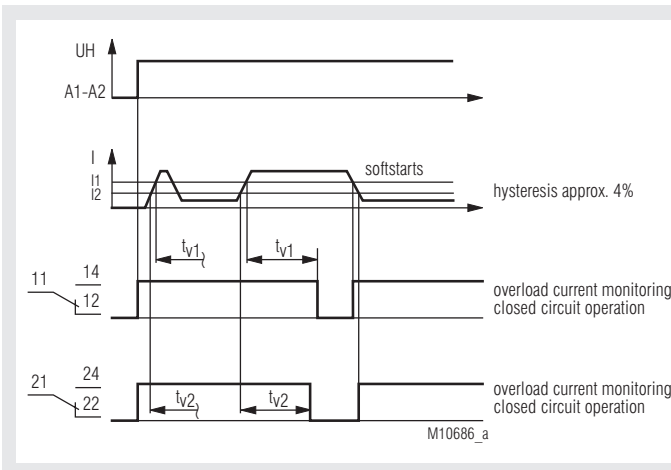
**Setting of response value:** infinitely variable at measuring range  
**Hysteresis:** approx. 4 % of setting range, factory set fixed value

**Repeat accuracy:** ≤ ± 1 %  
**Time delay tv:** 0.1 ... 20 s adjustable

### Auxiliary Circuit

**Auxiliary voltage U<sub>H</sub>:** AC 220 ... 240 V  
**Voltage range:** 0.8 ... 1.1 U<sub>H</sub>  
**Nominal consumption:** 2 x 2.3 VA  
**Nominal frequency:** 50 / 60 Hz  
**Frequency range:** ± 5 %

### Function Diagram



## Technical Data

### Output

<b>Contacts:</b>	2 x 1 changeover contacts	
<b>thermal current <math>I_{th}</math>:</b>	2 x 5 A	
<b>Switching capacity</b> to AC 15		
NO contact:	3 A / AC 230 V	IEC/EN 60 947-5-1
NC contact:	1 A / AC 230 V	IEC/EN 60 947-5-1
<b>Electrical life</b> to AC 15 at 1 A, AC 230 V		
NO contact:	3 x 10 <sup>5</sup> switch. cycl.	IEC/EN 60 947-5-1
<b>Short circuit strength</b> <b>max. fuse rating:</b>	4 A gL	IEC/EN 60 947-5-1
<b>Mechanical life:</b>	> 50 x 10 <sup>6</sup> switching cycles	

### General Data

<b>Nominal operating mode:</b>	continuous operation	
<b>Temperature range:</b>	- 20 ... + 60°C	
<b>Clearance and creepage distance</b> rated impuls voltage / pollution degree:	IEC 60 664-1	
Auxiliary voltage-contacts:	4 kV/2	
Auxiliary voltage-measur. circuit:	6 kV/2	
Measuring circuit-contacts:	6 kV/2	
The contacts are not designed for voltage systems with 400 / 690 V		
<b>EMC</b>		
Electrostatic discharge (ESD):	8 kV (air)	IEC/EN 61 000-4-2
HF irradiation:	10 V/m	IEC/EN 61 000-4-3
Fast transients:	4 kV	IEC/EN 61 000-4-4
Surge voltage between		
wires for power supply:	2 kV	IEC/EN 61 000-4-5
between wire and ground:	4 kV	IEC/EN 61 000-4-5
interference suppression:	Limit value class B	EN 55 011
<b>Degree of protection:</b>		
Housing:	IP 40	IEC/EN 60 529
Terminals:	IP 20	IEC/EN 60 529
<b>Housing:</b>	thermoplastic with VO behaviour accroding to UL subject 94	
<b>Vibration resistance:</b>	Amplitude 0.35 mm frequency 10 ... 55 Hz, IEC/EN 60 068-2-6 20 / 060 / 04 IEC/EN 60 068-1	
<b>Climate resistance:</b>	EN 50 005	
<b>Terminal designation:</b>	EN 50 005	
<b>Wire connection:</b>	2 x 2.5 mm <sup>2</sup> solid or 2 x 1.5 mm <sup>2</sup> stranded wire with sleeve DIN 46 228-1/-2/-3/-4	
<b>Wire fixing:</b>	Flat terminals with self-lifting clamping piece IEC/EN 60 999-1 DIN rail IEC/EN 60 715	
<b>Mounting:</b>		
<b>Weight</b>		
IL 5201/20007:	approx. 124 g	
SL 5201/20007CT:	approx. 245 g	

### Dimensions

IL 5201/20007:	35 x 90 x 63 mm
SL 5201/20007CT:	35 x 90 x 100 mm

## Standard Types

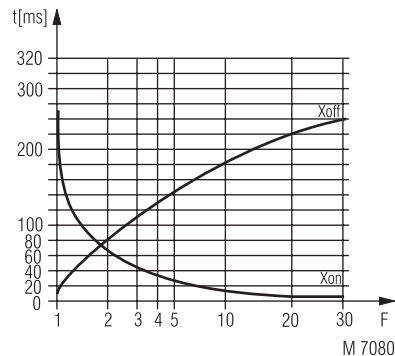
IL 5201/20007 AC 220 ... 240 V 50/60 Hz 0,5 ... 5 A

Article number:	0059589
• single phase	
• 2 adjustable measuring ranges up to 5 A	
• Closed circuit operation	
• Auxiliary voltage $U_H$	AC 220 ... 240 V
• 2 x 1 changeover contacts	
• Width: 35 mm	

SL 5201/20007CT AC 220 ... 240 V 50/60 Hz 5 ... 50 A

Article number:	0059807
• single phase	
• 2 adjustable measuring ranges up to 50 A	
• Closed circuit operation	
• Auxiliary voltage $U_H$	AC 220 ... 240 V
• 2 x 1 changeover contacts	
• Width: 35 mm	

## Characteristic



### Switching delay

The characteristic shows the switching delay depending on the values of  $X_{on}$  -  $X_{off}$  when switching the current on or off. A slow current change reduces the delay.

$$F = \frac{I_{\text{applied}}}{I_{\text{setting}}}$$