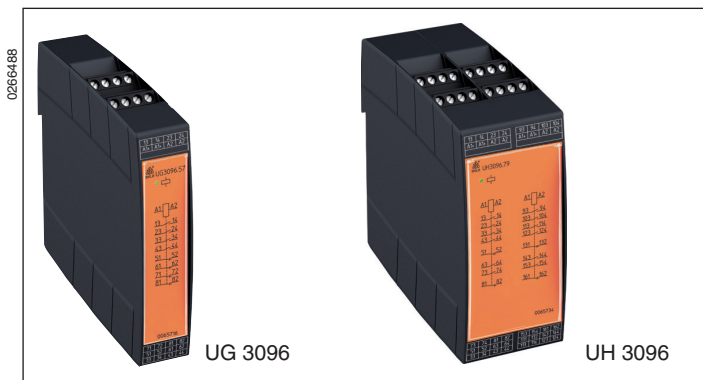


## Interface Module UG 3096, UH 3096



### Your Advantages

- Simple contact multiplication and reinforcement also for safety modules
- Cost and space saving alternative compared to contactors
- Easy monitoring of contact state via forcibly guided NC contacts

### Features

- With **forcibly guided** contacts according to EN 50 205
- UG 3096: 8 output contacts  
UH 3096: 16 output contacts
- As option with gold plated contacts to switch low loads
- As option with contacts connected in series to switch high DC-loads
- As option with pluggable terminal blocks for easy exchange of devices
  - with screw terminals
  - or with cage clamp terminals
- UG 3096: Width 22.5 mm  
UH 3096: Width 45 mm

### Approvals and Markings



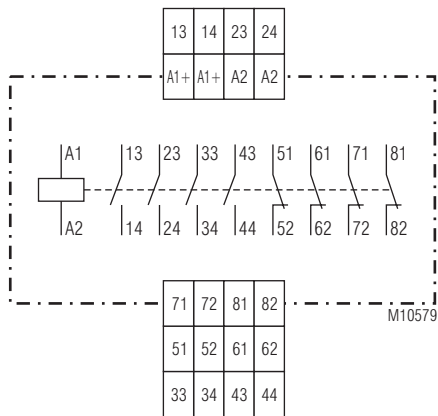
### Application

- Interfacing between control and load circuits
- Contact multiplication and reinforcement
- separate switching of several current circuits, e. g. with
  - Machines and plants,
  - Energy production and transport

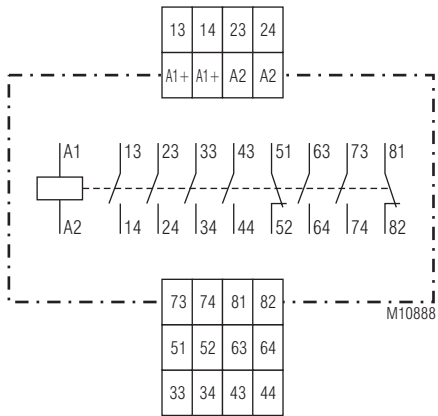
### Indication

green LED: on, when supply connected

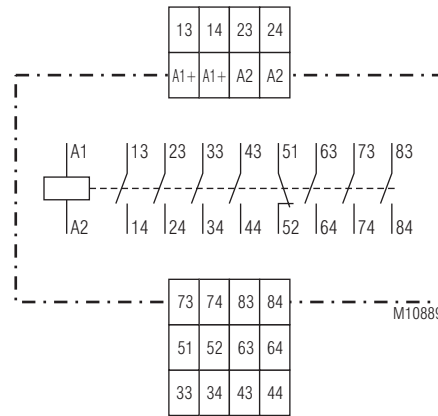
**Circuit Diagrams**



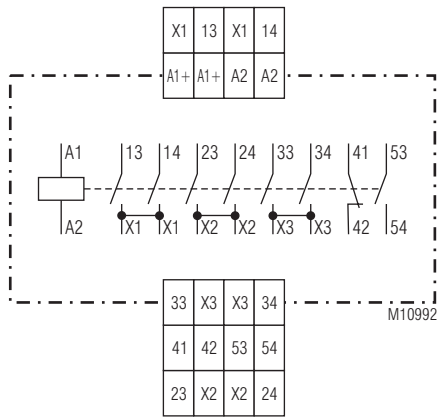
UG 3096.57



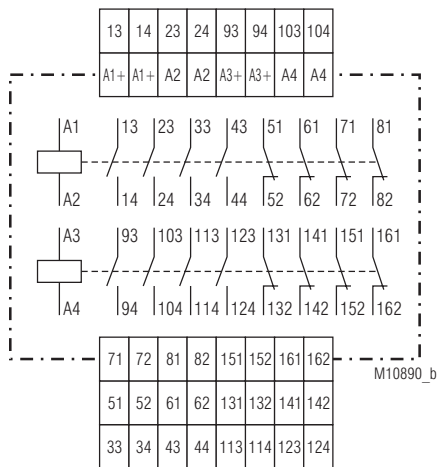
UG 3096.59



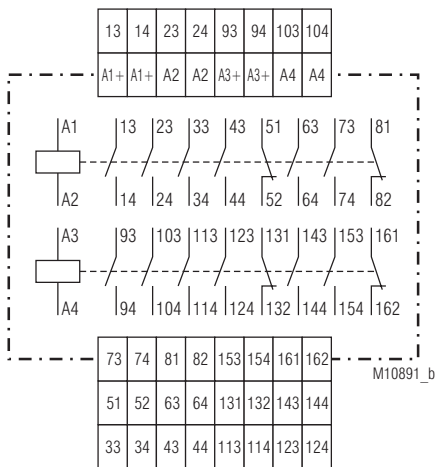
UG 3096.63



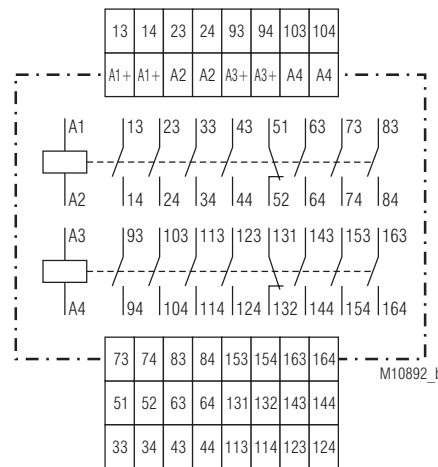
UG 3096.63/800



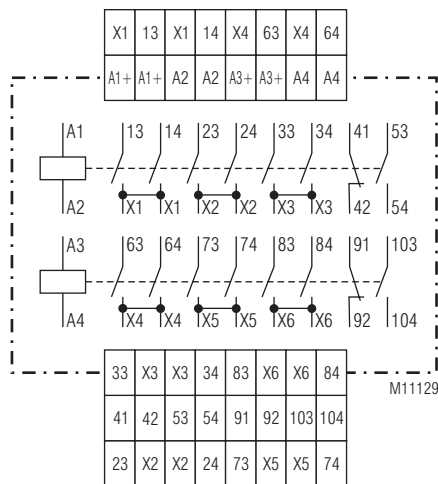
UH 3096.78



UH 3096.79



UH 3096.80



UH 3096.80/800

Technical Data	
<b>Input</b>	
<b>Nominal voltage <math>U_N</math>:</b>	DC 24 V, 110 V (others on request)
<b>Voltage range:</b>	0.8 ... 1.1 $U_N$
<b>Nominal consumption:</b>	
UG 3096:	1.4 W
UH 3096:	2.8 W
<b>Output</b>	
<b>Contacts:</b>	
UG 3096.57:	4 NO and 4 NC contacts
UG 3096.59:	6 NO and 2 NC contacts
UG 3096.63:	7 NO and 1 NC contacts
UH 3096.78:	8 NO and 8 NC contacts
UH 3096.79:	12 NO and 4 NC contacts
UH 3096.80:	14 NO and 2 NC contacts
<b>Contact type:</b>	forcibly guided
<b>Operate time:</b>	typical 30 ms
<b>Release time:</b>	typical 12 ms
<b>Nominal output voltage:</b>	AC 250 V, DC 24 V
<b>Thermal current <math>I_{th}</math>:</b>	max. 6 A (see quadratic total current limit curve)
<b>Switching capacity</b>	
to AC 15:	
NO contacts:	3 A / AC 230 V IEC/EN 60 947-5-1
NC contacts:	2 A / AC 230 V IEC/EN 60 947-5-1
to DC 13 at 0.1 Hz	
NO contacts:	4 A / DC 24 V IEC/EN 60 947-5-1
NC contacts:	4 A / DC 24 V IEC/EN 60 947-5-1
NO contacts:	1 A / DC 110 V IEC/EN 60 947-5-1
2 contacts in series	
NO contacts:	3 A / DC 110 V IEC/EN 60 947-5-1
3 contacts in series	
NO contacts:	5 A / DC 110 V IEC/EN 60 947-5-1
<b>Electrical life</b>	
NO contacts:	
to AC 15 at 1 A, AC 230 V:	1.5 x 10 <sup>6</sup> switch. cycl. IEC/EN 60 947-5-1
NO contacts:	
to AC 15 at 0.5 A, AC 230 V:	2.5 x 10 <sup>6</sup> switch. cycl. IEC/EN 60 947-5-1
NC contacts:	
to AC 15 at 1 A, AC 230 V:	1 x 10 <sup>6</sup> switch. cycl. IEC/EN 60 947-5-1
NO contacts:	
to DC 13 at 1 A, DC 24 V:	0.5 x 10 <sup>6</sup> switch. cycl. IEC/EN 60 947-5-1
<b>Permissible switching frequency:</b>	
<b>Switching voltage min./max.:</b>	10 switching cycles / s AC/DC 10 V / AC/DC 250 V
<b>Switching current min./max.:</b>	0.3 mA / 1 A
<b>Short circuit strength</b>	
<b>max. fuse rating:</b>	6 A gL IEC/EN 60 947-5-1
<b>Mechanical life:</b>	
	≥ 30 x 10 <sup>6</sup> switching cycles
<b>General Data</b>	
<b>Operating mode:</b>	Continuous operation
<b>Temperature range:</b>	- 20 ... + 60° C (see characteristics)
<b>Clearance and creepage distances</b>	
rated impulse voltage / pollution degree:	4 kV / 2 IEC 60 664-1
<b>EMC</b>	
Electrostatic discharge:	8 kV (air) IEC/EN 61 000-4-2
Fast transients:	4 kV IEC/EN 61 000-4-4
Surge voltages 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
<b>Vibration resistance:</b>	Amplitude 0.35 mm, frequency 10 ... 55 Hz, IEC/EN 60 068-2-6
<b>Climate resistance:</b>	20 / 060 / 04 IEC/EN 60 068-1

Technical Data	
<b>Terminal designation:</b>	EN 50 005
<b>Wire connection:</b>	DIN 46 228-1/-2/-3/-4
<b>Plug-in with screw terminals (PS)</b>	
max. cross section for connection:	1 x 0,25 ... 2,5 mm <sup>2</sup> solid or stranded ferruled (isolated) or 2 x 0,25 ... 1,0 mm <sup>2</sup> solid or stranded ferruled (isolated)
Insulation of wires or sleeve length:	
	7 mm
<b>Plug-in with cage clamp terminals (PC)</b>	
max. cross section for connection:	1 x 0,25 ... 2,5 mm <sup>2</sup> solid or stranded ferruled (isolated)
Insulation of wires or sleeve length:	
	10 mm
<b>PT</b>	
max. cross section for connection:	1 x 0,25 ... 1,5 mm <sup>2</sup> solid or stranded ferruled (isolated)
Insulation of wires or sleeve length:	
	8 mm
<b>Wire fixing:</b>	
	captive slotted screw or cage clamp terminals
	DIN rail IEC/EN 60 715
<b>Mounting:</b>	
<b>Weight</b>	
UG 3096:	approx. 215 g
UH 3096:	approx. 420 g

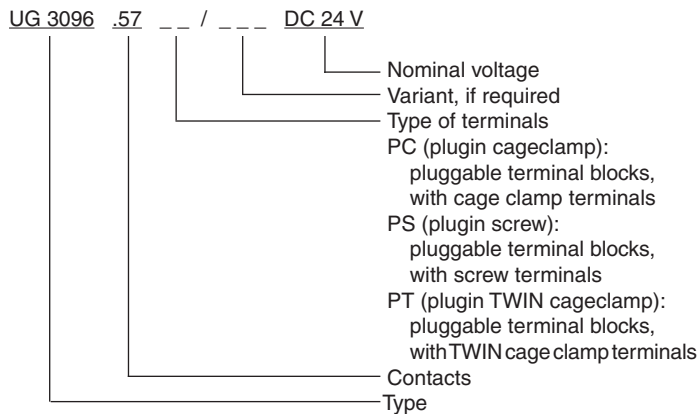
Dimensions	
<b>Width x height x depth</b>	
UG 3096:	22,5 x 105 x 120,3 mm
UG 3096 PS:	22,5 x 110 x 120,3 mm
UG 3096 PC, PT:	22,5 x 120 x 120,3 mm
UH 3096:	45 x 105 x 120,3 mm
UH 3096 PS:	45 x 110 x 120,3 mm
UH 3096 PC, PT:	45 x 120 x 120,3 mm
<b>Standard Types</b>	
UG 3096.57 DC 24 V	
Article number:	0065332
• 4 NO contacts, 4 NC contacts	
• Width:	22.5 mm
UH 3096.78 DC 110 V	
Article number:	0065062
• 8 NO contacts, 8 NC contacts	
• Width:	45 mm

## Variants

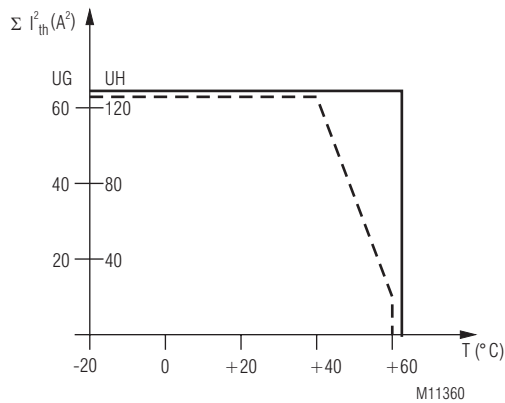
UG 3096.57/004: With gold plated contacts to switch low loads.  
Because of the gold plated contacts the UG 3096.57/004 can be used to switch small loads 1 mVA ... 7 VA, 1 mW ... 7 W in the range of 0.1 ... 60 V, 1 ... 300 mA. The gold plated contacts allow also to switch the maximum current but the gold plating will be burnt off. After that the contacts cannot be used any more to switch the small loads.

UG 3096.63/800: With contacts connected in series to switch high DC-loads

## Ordering example for variant



## Characteristics



— Mounted with distance, with air circulation  
- - - Mounted without distance, heated by units with similar load

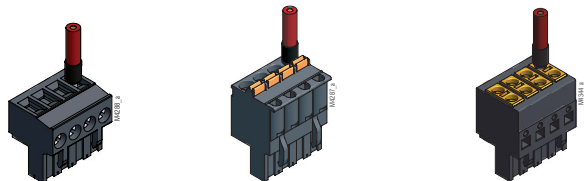
Quadratic total current

$$\sum I_{th}^2 = I_{th1}^2 + \dots + I_{th7}^2 + \dots + I_{th14}^2$$

$I_{th1} \dots I_{th14}$  : thermal current in contactrows

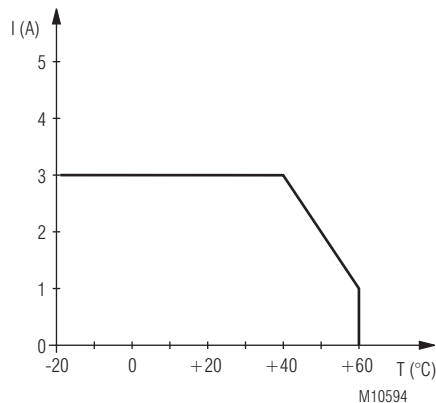
Quadratic total current limit curve

## Options with Pluggable Terminal Blocks



Screw terminal (PS/plugin screw)    Cage clam terminal (PC/plugin cage clamp)    TWIN Cage clam terminal (PT/plugin TWIN cage clamp)

## Characterisiques



Continuous current limit curve for 4 contacts with equal load