SAFEMASTER C
Multifunctional Safety Module
UG 6980

Translation
of the original instructions

DOLD

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Contents

Before installing, operating or maintaining this device, these instructions must be carefully read and understood.

Keep instructions for future reference

The installation must only be done by a qualified electrican!

Do not dispose of household garbage!
The device must be disposed of in compliance with nationally applicable rules and requirements.

To help you understand and find specific text passages and notes in the operating instructions, we have important information and information marked with symbols.

Symbol and Notes Statement

DANGER:
Indicates that death or severe personal injury will result if proper precautions are not taken.

WARNING:
Indicates that death or severe personal injury can result if proper precautions are not taken.

CAUTION:
Indicates that a minor personal injury can result if proper precautions are not taken.

INFO:
Referred information to help you make best use of the product.

ATTENTION:
Warns against actions that can cause damage or malfunction of the device, the device environment or the hardware / software result.

General Notes

The product hereby described was developed to perform safety functions as a part of a whole installation or machine. A complete safety system normally includes sensors, evaluation units, signals and logical modules for safe disconnections. The manufacturer of the installation or machine is responsible for ensuring proper functioning of the whole system. DOLD cannot guarantee all the specifications of an installation or machine that was not designed by DOLD. The total concept of the control system into which the device is integrated must be validated by the user. DOLD also takes over no liability for recommendations which are given or implied in the following description. The following description implies no modification of the general DOLD terms of delivery, warranty or liability claims.

Designated Use

The UG 6980 is used to enable and interrupt a safety circuit in a safe way. It can be used to protect people and machines in applications with e-stop buttons, safety gates, light curtains with selftesting (Type 4) acc. to IEC/EN 61496-1, 2-hand controls for presses as well as other production machinery with dangerous closing action (Type III C to EN ISO 13851) and for safety mats, safety edges and tape switches. To avoid damage of safety mats, safety edges and tape switches by to high switching current, the current provided by UG 6980 is limited to max. 15 mA also in the case of short circuit. When used in accordance with its intended purpose and following these operating instructions, this device presents no known residual risks. Nonobservance may lead to personal injuries and damages to property.

Safety Notes

Risk of electrocution!
Danger to life or risk of serious injuries.

- Disconnect the system and device from the power supply and ensure they remain disconnected during electrical installation.
- The device may only be used for the applications described in the mutually applicable operating instructions / data sheet. The notes in the respective documentation must be heeded. The permissible ambient conditions must be observed.
- The contact protection of the elements connected and the insulation of the supply cables must be designed in accordance with the requirements in the operating instructions / data sheet.
- Note the VDE and local regulations, particularly those related to protective measures.

Risk of fire or other thermal hazards!
Danger to life, risk of serious injuries or property damage.

- The device may only be used for the applications described in the mutually applicable operating instructions / data sheet. The notes in the respective documentation must be heeded. The permissible ambient conditions must be observed. In particular, the current limit curve must be heeded.
- The device may only be installed and put into operation by experts who are familiar with this technical documentation and the applicable health and safety and accident prevention regulations.

Functional error!
Danger to life, risk of serious injuries or property damage.

- The device may only be used for the applications described in the mutually applicable operating instructions / data sheet. The notes in the respective documentation must be heeded. The permissible ambient conditions must be observed.
- The device may only be installed and put into operation by experts who are familiar with this technical documentation and the applicable health and safety and accident prevention regulations.
- The unit should be panel mounted in an enclosure rated at IP 54 or superior. Dust and dampness may lead to malfunction.

Installation fault!
Danger to life, risk of serious injuries or property damage.

- Make sure of sufficient protection circuitry at all output contacts for capacitive and inductive loads.

Attention!

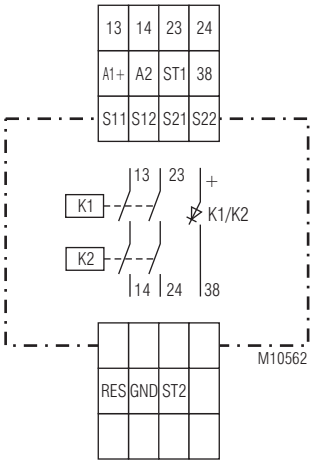
- The safety function must be triggered during commissioning.
- AUTOMATIC START !
  According to IEC/EN 60204-1 part 9.2.5.4.2 and 10.8.3 it is not allowed to restart automatically after emergency stop.
  Therefore the machine control has to disable the automatic start after emergency stop.
- Opening the device or implementing unauthorized changes voids any warranty

SAFEMASTER C
Multifunctional Safety Module
UG 6980

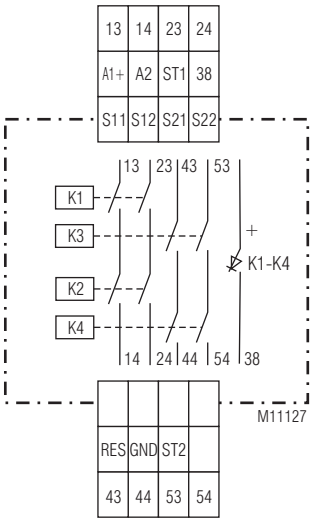
Product Description

The multifunctional safety module UG 6980 provides protection of men and machines by enabling and disabling a safety circuit. It is used together with e-stop buttons, safety gates, light curtains with self testing (type 4) to IEC/EN 61496-1, 2-hand buttons on presses for metal processing and productions machines with dangerous closing movements (type III C to EN ISO 13851) and safety mats, edges and tape switches. Simply select 1 out of 6 safety functions on rotary switches - ready. This reduces divers types of safety modules in stock and simplifies your disposition.

Circuit Diagram



UG 6980.02



UG 6980.04

Connection Terminals

Terminal designation	Signal description
A1 +	DC 24 V
A2	0 V
13, 14, 23, 24, 43, 44, 53, 54	Forcibly guided NO contacts for release circuit
38	Semiconductor monitoring output
GND	Reference potential for Semiconductor monitoring output
S11, S21	Control output
S12, S22, ST1, ST2, RES	Control input

Your Advantage

- **Adjustable safety functions:**
  - E-Stop
  - Safety gate
  - Two-hand control
  - Safety mat / Safety edge
  - Exclusive or contacts
  - Light curtain
- Manual or auto start
- Only one device, different safety functions
- Protection against manipulation by sealable transparent cover

Features

- **According to**
  - **Performance Level (PL) e and category 4 to EN ISO 13849-1**
  - **SIL Claimed Level (SIL CL) 3 to IEC/EN 62061**
  - **Safety Integrity Level (SIL) 3 to IEC/EN 61508 and IEC/EN 61511**
- Acc. to EN 50156-1 for furnaces
- Line fault detection on On-button:
- Manual restart or automatic restart
- With or without cross fault monitoring
- 2-channel
- Forcibly guided output contacts
- Output: max. 4 NO instantaneous semiconductor monitoring output
- LED indicator for operation, safety function and failure
- As option with pluggable terminal blocks for easy exchange of devices
  - With screw terminals
  - Or with cage clamp terminals
- Width: 22.5 mm

Approvals and Markings

CE · TÜVRheinland CERTIFIED Functional Safety Type Approved www.tuv.com ID 0600000000 · c UL us LISTED Canada / USA · UKCA

Application

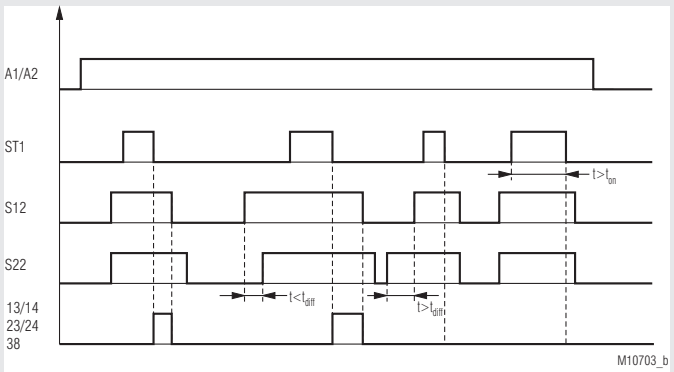
Protection of people and machines

- Emergency stop circuits on machines
- Monitoring of position switches on a safety gate
- Switch gear (FSD) for light bars with selftest (type 4) according to IEC/EN 61496-1
- 2-hand controls for presses as well as other production machinery with dangerous closing action (Type III C to EN ISO 13851)
- Switch gear for safety mats, safety edges and tape switches with a max. switching current of 15 mA.

Indicators

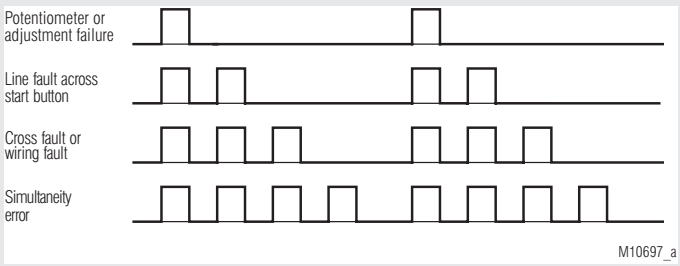
Green LED ON:	On, when supply connected
Red LED ERR:	On, at internal error Flashes at external error
Green LED K1/K2 (.02) e.g. K1-K4 (.04):	On, when relay K1 and K2 (.02) energized, e.g. when relay K1, K2, K3 and K4 (.04) energized Flashes at external error (see flashing codes)

Function Diagram

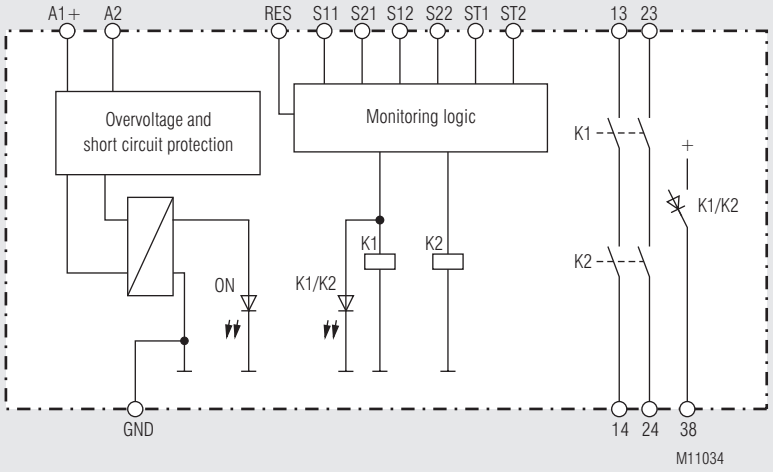


t_{diff}: Simultaneity demand of the safetyfunction (see technical data)
t_{on}: Actuation time of start button (see technical data)

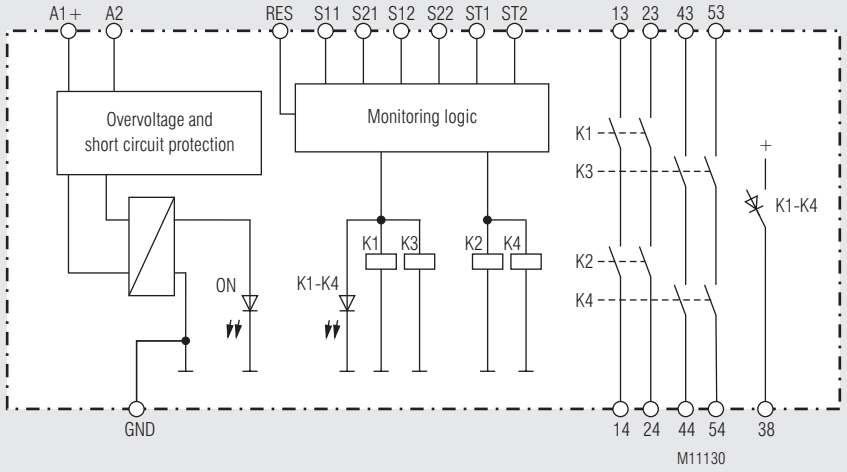
Fault Indication by Flashing Code on K1/K2



Block Diagrams



UG 6980.02



UG 6980.04

Practical Notes

Operating mode
Manual or auto start is chosen by wiring. On manual start S21 has to be connected to ST1! via an NO push button. For auto start S21 is connected to ST2. If both inputs are connected to S21 the unit goes into safe failure mode. A restart or new start of the device has to be made. When selecting the safety function 2-hand control (3), only automatic start is possible.

Line fault detection e.g. monitoring of ON-button
If the On-button pressed more than 3 s the adequate output contacts of the safety function can't be switch. The output contacts can be energized when the On-button pressed again ($0.1 s < t_{ON} < 3 s$).
A line fault is detected if the On-button more than 10 s is actuated. The output contacts of the adeauate safety function can only be energized with a reset or re-start with on an off switching of power supply.

Reset and external failures:
The reset input is used to reset external failures (application failures or removable external failures as e.g. a line fault on reset button). If the reset signal is connected to the input for more than 3 sec the unit makes a reset. A new reset is only possible when the reset signal had been switched off temporarily.
If an external failure occurs because both input channels of a safety function did not switch on or off within the simultanious time, a reset is only possible if both channels are switched to off state after removing failure cause.

Setting
On the variant /0_ _ the safety function can be set via rotary switch.
Possible functions:

Fct.	Safety function	
1	E-Stop	cross fault detection
2	Safety gate	
3	Two-hand control	
4	Safety mat / Safety edge	
5	Exclusive or contacts	
6	E-Stop	without cross fault detection
7	Safety gate	
8	Light curtain	

Operating Potentiometer

Poti "Fkt"	Adjustment of safety function

Technical Data

Input

Nominal voltage U_N:	DC 24 V
Voltage range:	0.8 ... 1.1 U_N
Nominal consumption:	typ. 1.9 W
Short-circuit protection:	Internal PTC
Overvoltage protection:	Internal VDR
Duty-cycle ON button:	$0.1 s < t_{EIN} < 3 s$
Duty-cycle Reset button:	> 3 s
Safety function	
Safety mat / safety edge (4)	
max. permitted safety edge contact resistance:	1000 Ω
switching current at short circuit:	Typ. 15 mA at U_N
Light curtains (8)	
control current via S12, S22:	Typ. 8 mA at U_N
Min. voltage on terminals S12, S22 when relay activated:	DC 10 V

Output

Contacts

UG 6980.02	2 NO contacts
UG 6980.04	4 NO contacts

The NO contacts can be used for safe braking.

Thermal current I_{th}:	Max. 8 A (see quadratic total current limit curve)
Safety function	
E-Stop (1) (6), Safety gate (2) (7), Exclusive or contacts (5)	
Start up at U_N:	< 65 ms
Release delay at U_N and disconnecting the supply:	< 40 ms
Release delay at U_N and disconnecting S12,S22:	< 60 ms
Simultaneity demand:	< 3 s
Two-hand control (3)	
Start up at U_N:	< 110 ms
Release delay at U_N and disconnecting the supply:	< 40 ms
Release delay at U_N and disconnecting S12,S22:	< 60 ms
Simultaneity demand:	< 0,5 s
Safety mat (4)	
Start up at U_N:	< 85 ms
Release delay at U_N and disconnecting the supply:	< 40 ms
Release delay at U_N and disconnecting S12,S22:	< 60 ms
Light curtains (8)	
Start up at U_N:	< 35 ms
Release delay at U_N and disconnecting the supply:	< 40 ms
Release delay at U_N and disconnecting S12,S22:	< 25 ms
Simultaneity demand:	< 1 s
Switching capacity	
to AC 15	3 A / AC 230 V IEC/EN 60947-5-1
to DC 13	
contacts 13/14, 23/24:	2 A / DC 24 V IEC/EN 60947-5-1
contacts 43/44, 53/54:	3 A / DC 24 V IEC/EN 60947-5-1
to DC 13	
contacts 13/14, 23/24:	4 A / DC 24 V at 0.1 Hz
Electrical life	
at 5 A, AC 230 V cos φ = 1:	> 1.5 x 10^5 switching cycles
Zulässige Schalthäufigkeit	
UG 6980.02:	Max. 1800 switching cycles / h
UG 6980.04:	Max. 360 switching cycles / h
Short circuit strength	
max. fuse rating:	6 A gG / gL IEC/EN 60947-5-1
Mechanical life:	10 x 10^6 switching cycles
Semiconductor monitoring output (not safety):	max. 50 mA DC 24 V, plus switching (see current limit curve)

Technical Data

General Data

Nominal operating mode:	Continuous operation
Temperature range	
Operation:	- 25 ... + 60 °C (see quadratic total current limit curve) At an altitude of > 2000 m the maximum permissible temperature reduces by 0.5°C / 100 m
Storage:	- 40 ... + 85 °C
Altitude,	
Clearance and creepage distance	
rated impulse voltage / pollution degree:	IEC 60664-1 ≤ 2000 m: 4 kV / 2 > 2000 m up to ≤ 4000 m: 2,5 kV / 2
EMC	IEC/EN 61326-3-1, IEC/EN 62061
Interference suppression:	Limit value class B EN 55011
Degree of protection	
Housing:	IP 40 IEC/EN 60529
Terminals:	IP 20 IEC/EN 60529
Housing:	Thermoplastic with VO behaviour according to UL subj. 94
Vibration resistance:	Amplitude 0,35 mm Frequency 10 ... 55 Hz,IEC/EN 60068-2-6
Klimate resistance:	25 / 060 / 04 IEC/EN 60068-1
Terminal designation:	EN 50005
Wire fixing:	Captive slotted screw or cage clamp terminals
Mounting:	DIN rail IEC/EN 60715
Weight:	Approx. 210 g

Dimensions

Width x height x depth:	
UG 6980 PS:	22.5 x 110 x 120.3 mm
UG 6980 PC, PT:	22.5 x 120 x 120.3 mm

UL-Data

The safety functions were not evaluated by UL. Listing is accomplished according to requirements of Standard UL 508, "general use applications"

Ambient temperature:	- 15 … + 55 °C
Altitude:	≤ 2000 m
Switching capacity for .02:	Pilot duty B300, R300 8A 250Vac Resistive or G.P. 8A 24Vdc Resistive
Switching capacity for .04	
Ambient temperature 55°C	Pilot duty B300, R300 5A 250Vac Resistive or G.P. 5A 24Vdc Resistive
Ambient temperature 40°C:	Pilot duty B300, R300 8A 250Vac Resistive or G.P. 8A 24Vdc G.P.
Wire connection::	60°C / 75°C copper conductors only
PS-terminal:	AWG 28 - 12 Sol/Str Torque 0.5 Nm
PC-terminal:	AWG 24 - 12 Sol/Str
PT-terminal:	AWG 24 - 16 Sol/str

Technical data that is not stated in the UL-Data, can be found in the technical data section.

Standard Type

UG 6970.04PS/61 DC24V

Article number:	0065426
• 1st Safety function:	Adjustable
• 2nd Safety function:	Adjustable
• Output:	2 NO contacts per safety function
• Nominal voltage:	DC 24 V
• Width:	22.5 mm

Variants

UG 6980 ._ _ _ _ / _ 00 /61 DC 24 V

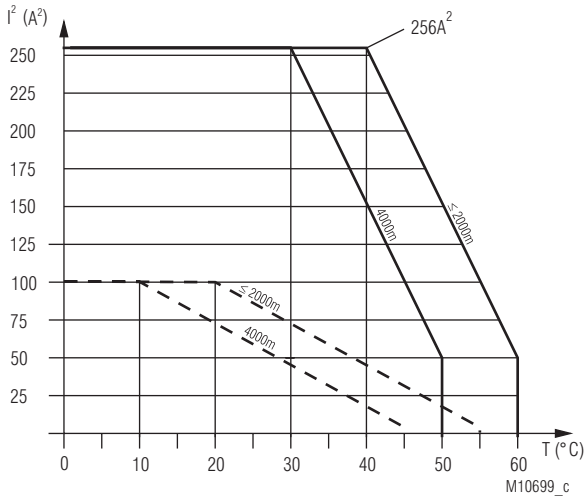
- DC 24 V: Nominal voltage
- /61: UL-approval
- 00: Safety function
  - 0 = Adjustable
  - 8 = Light curtains (Safety Module, Light Curtain)
- Type of terminals
  - PC (plug in cage clamp): pluggable terminal blocks, with cage clamp terminals
  - PS (plug in screw): pluggable terminal blocks, with screw terminals
  - PT (plug in Twin cage clamp) pluggable terminal blocks with cage clamp terminals 2-wire
- Contacts
- Type

Troubleshooting

Failure	Potential cause
LED "ON" does not light up	- Power supply A1+/A2 not connected
LED "ERR" flashes in relation 1:1	- Under- or overvoltage (check power supply A1+/A2)
LED "ERR" flashes in relation 4:1	- External failure (see flashing code)
LED "ERR" continuously on	- System error (if cannot be removed after restart unit must be replaced)

Maintenance and Repairs

- The device contains no parts that require maintenance.
- In case of failure, do not open the device but send it to manufacturer for repair.



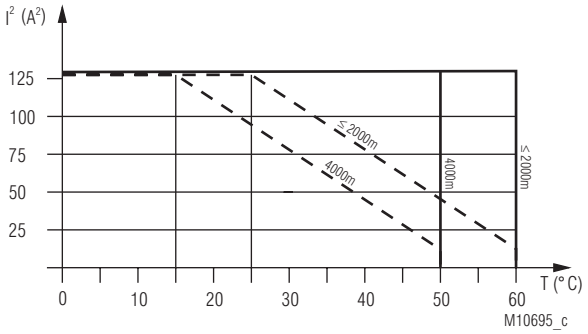
Device free-standing.
Max. current at 60°C(≤ 2000m) or 50 °C (4000m) over
4 contact path = 3,5A ≙ $4x3{,}5^2A^2 = 100A^2$

Device mounted without distance heated by
devices with same load.
Max. current at 55°C(≤ 2000m) or 45 °C (4000m) over
4 contact path = 1A ≙ $4x1^2A^2 = 4A^2$

$$\Sigma I^2 = I_1^2 + I_2^2 + I_3^2 + I_4^2$$

I_1, I_2, I_3, I_4 - Current in contact paths

Quadratic total current limit curve output contacts UG 6980.04.
From an altitude of > 2000 m the curve is adjusted by - 0,5 °C / 100 m
(see example for 4000 m).



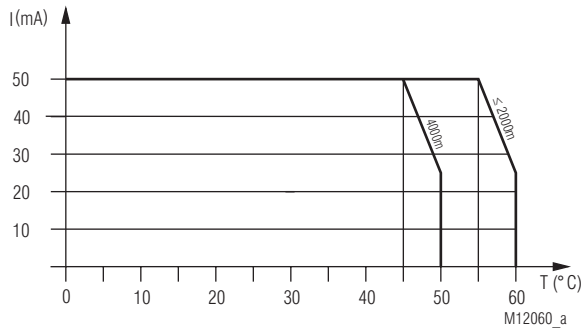
Device free-standing.
Max. current at 60°C (≤ 2000m) or 50°C (4000m) over
2 contact path = 8A ≙ $2x8^2A^2 = 128A^2$

Device mounted without distance heated by
devices with same load.
Max. current at 60°C (≤ 2000m) or 50°C (4000m) over
2 contact path = 2,5A ≙ $2x2{,}5^2A^2 = 12{,}5A^2$

$$\Sigma I^2 = I_1^2 + I_2^2$$

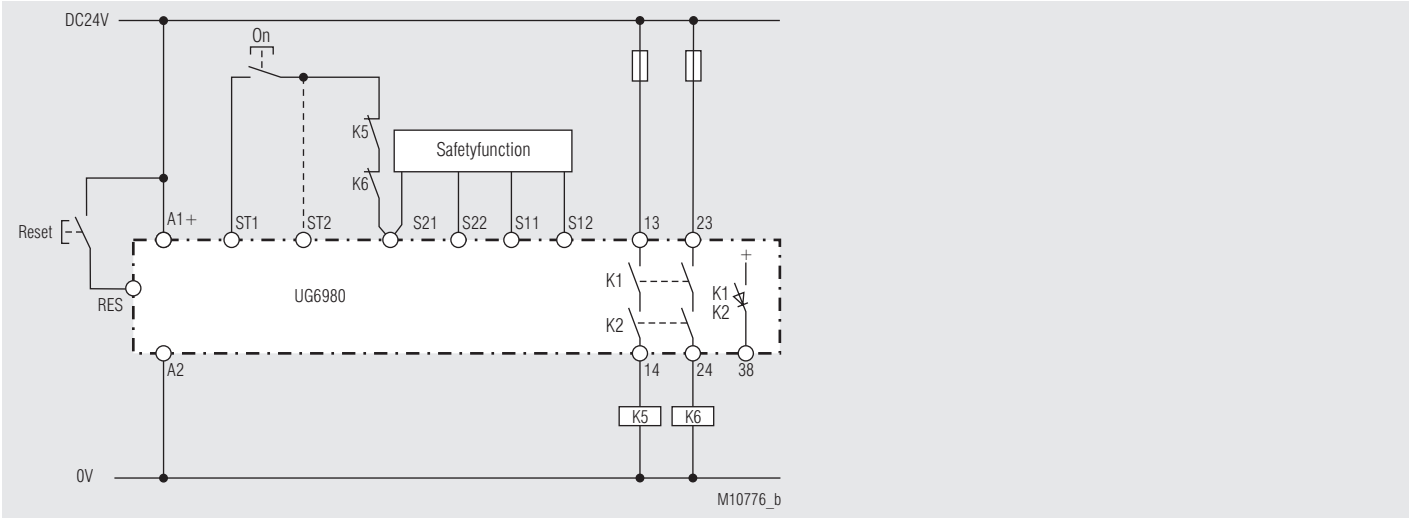
I_1, I_2 - Current in contact paths

Quadratic total current limit curve output contacts UG 6980.02.
From an altitude of > 2000 m the curve is adjusted by - 0,5 °C / 100 m
(see example for 4000 m).

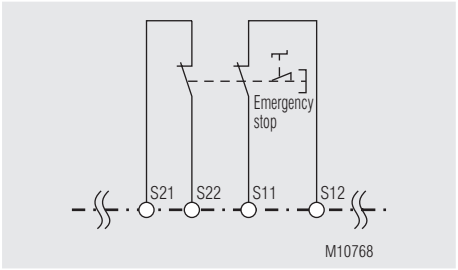


Current limit curve semiconductor monitoring output.
From an altitude of > 2000 m the curve is adjusted by - 0,5 °C / 100 m
(see example for 4000 m).

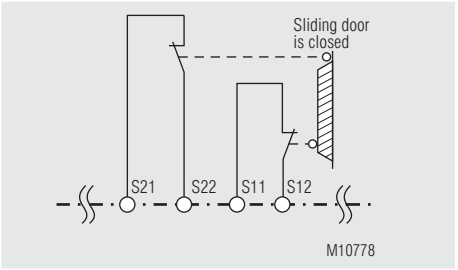
Application Examples with safety function



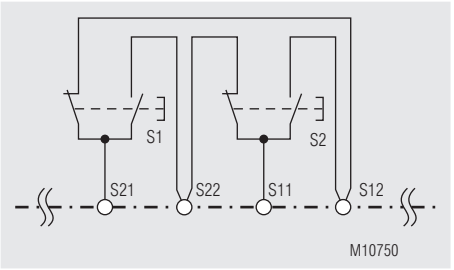
Safetyfunction: see below, Manual-Start (for automatic start make a bridge to ST2 instead of ON button).
Contact reinforcement by external contactors. The correct function of the external contactors is monitored by connecting the NC contacts into the start circuit (manual start: terminals S21-ST1, auto start: S21-ST2)



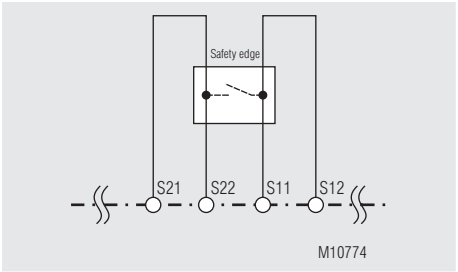
Fct.: E-stop (1),
with cross fault detection
SIL 3, PL e, Cat. 4



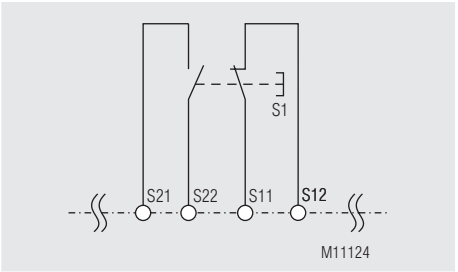
Fct.: Safety gate (2),
with cross fault detection
SIL 3, PL e, Cat. 4



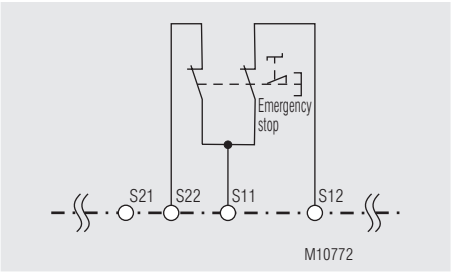
Fct.: Two-hand control (3),
with cross fault detection
SIL 3, PL e, Cat. 4
Type III C to EN ISO 13851



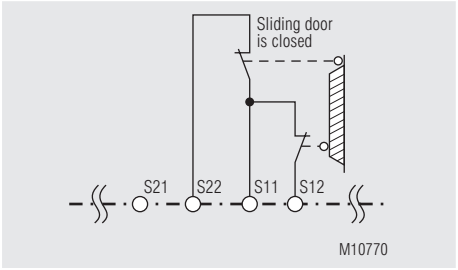
Fct.: Safety mat / Safety edge (4),
with cross fault detection
SIL 3, PL e, Cat. 4



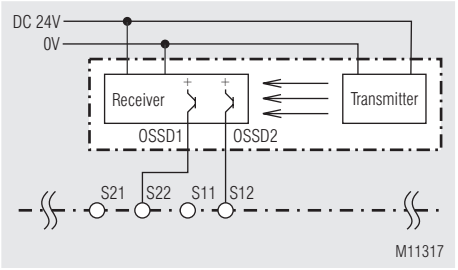
Fct.: Exclusive or contacts (5),
with cross fault detection
SIL 3, PL e, Kat. 4



Fct.: E-Stop (6),
without cross fault detection
SIL 3, PL e, Cat. 4 [1]



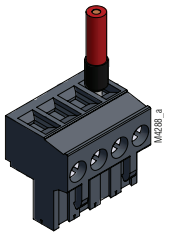
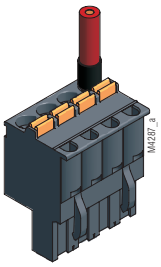
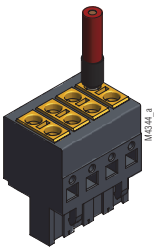
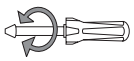
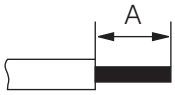
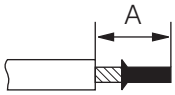
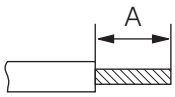
Fct.: Safety gate (7),
without cross fault detection
SIL 3, PL e, Cat. 4 [1]



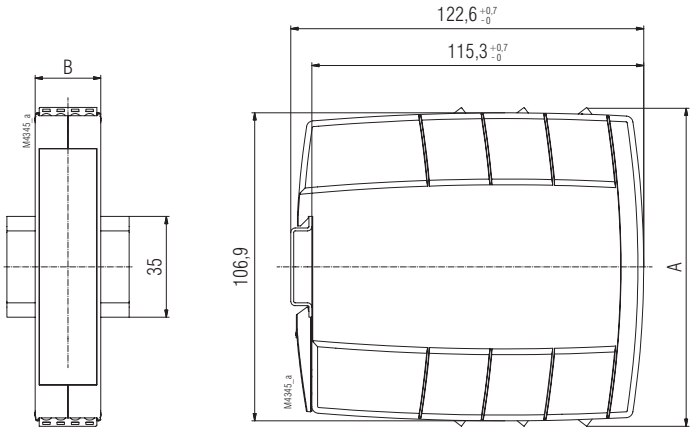
Fct.: Light curtain (8),
without cross fault detection
SIL 3, PL e, Cat. 4 [2]

[1] To achieve the stated safety classification the wiring has to be done with crossfault monitoring.
[2] To achieve the stated safety classification light curtains with selftest (type 4) according to IEC/EN 61496-1 have to be used.

DE	**Anschlusstechnik**
EN	**Connection Technology**
FR	**Technologie de connexion**

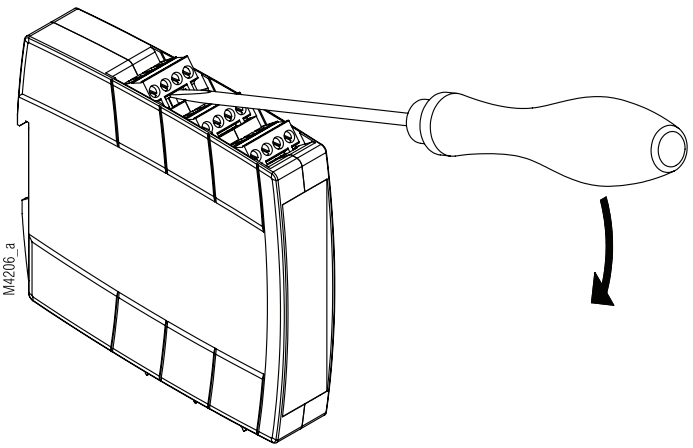
	Schraubklemmen, abnehmbar Screw terminals, pluggable Bornes à vis, amovibles	Federkraftklemmen, abnehmbar Cage clamp terminals, pluggable Bornes ressorts, amovibles	Federkraftklemmen 2-Leiter, abnehmbar Cage clamp terminals 2-wire, pluggable Bornes ressorts 2 conducteurs, amovibles
	 PS	 PC	 PT
	DIN 5264-A; 0,6 x 3,5 0,5 Nm 5 LB. IN	DIN 5264-A; 0,6 x 3,5	DIN 5264-A; 0,4 x 2,5
 M10248	A = 7 mm 1 x 0,2 ... 2,5 mm² 1 x AWG 24 to 12 2 x 0,2 ... 1,0 mm² 2 x AWG 24 to 18	A = 10 mm 1 x 0,2 ... 2,5 mm² 1 x AWG 24 to 12	A = 8 mm 1 x 0,2 ... 1,5 mm² 1 x AWG 24 to 16
 M10249	A = 7 mm 1 x 0,25 ... 2,5 mm² 1 x AWG 24 to 12 2 x 0,25 ... 1,0 mm² 2 x AWG 24 to 18	A = 10 mm 1 x 0,25 ... 2,5 mm² 1 x AWG 24 to 12 2 x 0,25 ... 1,5 mm² mit TWIN-Aderendhülse	A = 8 mm 1 x 0,25 ... 1,5 mm² 1 x AWG 24 to 16
 M10250	A = 7 mm 1 x 0,2 ... 2,5 mm² 1 x AWG 24 to 12 2 x 0,2 ... 1,5 mm² 2 x AWG 24 to 16	A = 10 mm 1 x 0,2 ... 2,5 mm² 1 x AWG 24 to 12	A = 8 mm 1 x 0,2 ... 1,5 mm² 1 x AWG 24 to 16

DE	**Maßbild (Maße in mm)**
EN	**Dimensions (dimensions in mm)**
FR	**Dimensions (dimensions en mm)**



	A	B
UG 6980 PS	110 ± 1	22,5
UG 6980 PC	120 ± 1	
UG 6980 PT		

DE	**Montage / Demontage der PS / PC / PT-Klemmenblöcke**
EN	**Mounting / disassembly of the PS / PC / PT-terminal blocks**
FR	**Montage / Démontage des borniers PS / PC / PT**



DE	**Sicherheitstechnische Kenndaten**
EN	**Safety related data**
FR	**Données techniques sécuritaires**

EN ISO 13849-1:		
Kategorie / Category:	4	
PL:	e	
$MTTF_d$:	262,6	a (year)
DC_{avg}:	99,0	%
d_{op}:	365	d/a (days/year)
h_{op}:	24	h/d (hours/day)
t_{cycle}:	3600	s/cycle
	≙ 1	/h (hour)

IEC/EN 62061 **IEC/EN 61508** **IEC/EN 61511:**		
SIL CL:	3	IEC/EN 62061
SIL:	3	IEC/EN 61508 / IEC/EN 61511
HFT*):	1	
DC:	99,0	%
PFH_D:	1,88E-10	h^{-1}
PFD_{avg}:	1,6E-05	(Low Demand Mode)
T_1	20	a (year)

*) HFT = Hardware-Fehlertoleranz
Hardware failure tolerance
Tolérance défauts Hardware

Anforderung seitens der Sicherheitsfunktion an das Gerät Demand to our device based on the evaluated neccessary safety level of the application. Consigne résultant de la fonction sécuritaire de l'appareil		Intervall für zyklische Überprüfung der Sicherheitsfunktion Intervall for cyclic test of the safety function Interval du contrôle cyclique de la fonction sécuritaire
nach, acc. to, selon EN ISO 13849-1	PL e with Cat. 3 or Cat. 4	einmal pro Monat once per month mensuel
	PL d with Cat. 3	einmal pro Jahr once per year annuel
nach, acc. to, selon IEC/EN 62061, IEC/EN 61508	SIL CL 3, SIL 3 with HFT = 1	einmal pro Monat once per month mensuel
	SIL CL 2, SIL 2 with HFT = 1	einmal pro Jahr once per year annuel
nach, acc. to, selon EN 61511, EN 50156-1	SIL 3	einmal pro Jahr once per year annuel

Info

DE	Die angeführten Kenndaten gelten für die Standardtype. Sicherheitstechnische Kenndaten für andere Geräteausführungen erhalten Sie auf Anfrage. Die sicherheitstechnischen Kenndaten der kompletten Anlage müssen vom Anwender bestimmt werden.
EN	The values stated above are valid for the standard type. Safety data for other variants are available on request. The safety relevant data of the complete system has to be determined by the manufacturer of the system.
FR	Les valeurs données sont valables pour les produits standards. Les valeurs techniques sécuritaires pour d'autres produits spéciaux sont disponibles sur simple demande. Les données techniques sécuritaires de l'installation complète doivent être définies par l'utilisateur.

DE	**EG-Konformitätserklärung**
EN	**CE-Declaration of Conformity**
FR	**Déclaration de conformité européenne**

EG - Konformitätserklärung
Declaration of Conformity
Déclaration de conformité européenne

Hersteller:
Manufacturer: / Fabricant:
Anschrift:
Address: / Adresse:

E. Dold & Söhne GmbH & Co. KG

Bregstraße 18
78120 Furtwangen
Germany

Produktbezeichnung:	Multifunktionales Sicherheitsmodul	**UG6980.kktt/x00ccc**	mit:	kk = 02, 04 tt = PS, PC, PT
Product description:	*Multifunction safety module*		*with:*	x = 0 – 8 optional ccc = /60 ... / 69
Désignation du produit:	*Module de sécurité multifonctions*		*avec:*	

Das bezeichnete Produkt stimmt mit den Vorschriften folgender europäischer Richtlinien überein:
The indicated product is in conformance with the regulations of the following european directives:
Le produit désigné est conforme aux instructions des directives européennes:

Maschinenrichtlinie: *Machinery directive: / Directives Machines:*	2006/42/EG	EU-Abl. L157/24, 09.06.2006
EMV - Richtlinie: *EMC - Directive: / Directives- CEM::*	2014/30/EU	EU-Abl. L96/79, 29.03.2014
RoHS - Richtlinie *RoHS -Directive: / Directives - RoHS:*	2011/65/EU	EU-Abl. L174/88, 01.07.2011

Prüfgrundsätze: *Basis of Testing:* *Lignes de contrôle:*	EN ISO 13849-1:2015 EN 62061:2005 + AC:2010 + A1:2013 + A2:2015 EN 61508 Parts 1-7:2010 EN 61000-6-1:2007 EN 61000-6-3:2007 + A1:2011	EN ISO 13851:2019 EN 50178:1997 EN 61000-6-2:2005 EN 61000-6-4:2007 + A1:2011

Die Übereinstimmung eines Baumusters des bezeichneten Produktes mit der oben genannten Maschinenrichtlinie wurde bescheinigt durch:
Consistency of a production sample with the marked product in accordance to the above machiney directive has been certified by:
La conformité d'un échantillon du produit désigné aux directives machines susmentionnées a été certifiée par:

Benannte Stelle: *Certification office: / l´organisme notifié:*	TÜV Rheinland Industrie Service GmbH Am Grauen Stein, 51105 Köln
Nummer der benannten Stelle: *Number of certification office:/ Numéro de l´organisme notifié:*	0035
Nummer der Bescheinigung: *Certification number: / Numéro de certificat:*	01/205/5305.03/22
Ausstelldatum : *Date of issue: / Date de délivrance:*	29.07.2022

Für die Zusammenstellung der technischen Unterlagen ist bevollmächtigt:
For the compilation of technical documents is authorized:
Pour la composition des documents techniques est autorisé:

Gamal Hagar, Entwicklungsleiter / R&D Manager

Rechtsverbindliche Unterschrift:
Signature of authorized person:
Signature autorisée :

ppa. Dold

Christian Dold, Produktmanagement / Productmanagement

Ort, Datum : Furtwangen, 25.08.2022
Place, Date: / Lieu, date:

Diese Original - Erklärung bescheinigt die Übereinstimmung mit den genannten Richtlinien, beinhaltet jedoch keine Zusicherung von Eigenschaften. Die Sicherheitshinweise der Produktdokumentation sind zu beachten.
This original declaration confirms the conformity of the mentioned directives but does not comprise any guarantee of the product characteristics. The safety directives of the product documentation are to be considered.
Cette déclaration originale certifie la conformité des directives nommées mais ne comprend aucune garantie des caractéristiques du produit. Les directives de sécurité de la documentation du produit sont à considérer.

DE	**UK-Konformitätserklärung**
EN	**UK-Declaration of Conformity**
FR	**Déclaration de conformité UK**

UK Declaration of Conformity

Manufacturer: **E. Dold & Söhne GmbH & Co. KG**

Address: Bregstraße 18
78120 Furtwangen
Germany

Product description: Multifunction safety module **UG6980.kktt/x00ccc** mit: kk = 02,
tt = PS, PC, PT
x = 0 – 8
optional ccc = /60 .. /69

The indicated product is in conformance with the regulations of the following British regulations:

Supply of Machinery (Safety) Regulations: S.I. 2008 No. 1597

Electromagnetic Compatibility Regulations: S.I. 2016 No. 1091

RoHS Regulations: S.I. 2012 No. 3032

Designated standards:
EN ISO 13849-1:2015
EN 62061:2005 + AC:2010 + A1:2013 + A2:2015
EN 61508 Parts 1-7:2010
EN 61000-6-1:2007
EN 61000-6-3:2007 + A1:2011
EN ISO 13851:2019
EN 50178:1997
EN 61000-6-2:2005
EN 61000-6-4:2007 + A1:2011

Consistency of a production sample with the marked product in accordance to the above machiney directive has been certified by:

Certification office: TÜV Rheinland UK Ltd., Friars Gate(Third Floor),
1011 Stratford Road, Shirley, Solihull B90 4BN, United Kingdom

Number of certification office: 2571

Certification number: 01/205U/5305.00/22

Date of issue: 2022-07-29

For the compilation of technical documents is authorized:

Dold Industries Ltd

11 Hamberts Rd. Blackall Ind. Estate
South Woodham Ferrers
GB - Essex, CM3 5UW

Signature of authorized person:

ppa. Dold

Christian Dold - Productmanagement

Place, Date : Furtwangen, 2022-08-25

This original declaration confirms the conformity of the mentioned directives but does not comprise any guarantee of the product characteristics. The safety directives of the product documentation are to be considered.