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Guardmaster®
Specialists in machinery safety


Ferrotek

magnetically coded safety interlock switch and control unit



Magnetically coded unit,
cannot be operated by simple magnets

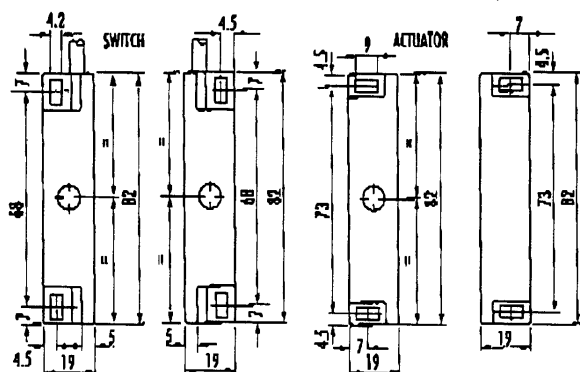
Unique design, operates on two faces

10 mm switching distance, tolerant to misalignment

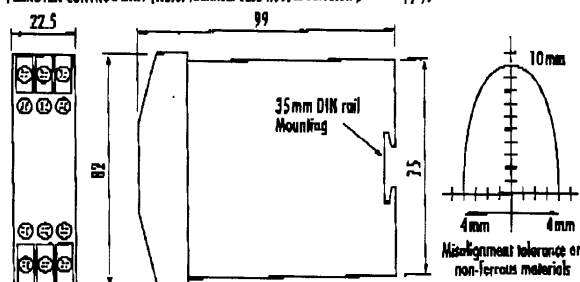
Building block technology,
easily expanded to 6-, 8- or 10-way systems

features

dimension drawings



FERROTEK CONTROL UNIT (Note: identical case houses Ferrotek power supply)



technical specifications

Approvals	UL
Ferrotek control unit	
Power supply	24 V AC/DC $\pm 16\%$
Power consumption	< 2 VA
Safety inputs	One or multiple sensors (selectable)
Internal fuse	5 A quick acting on safety output
Relay output	1N/O fused, TÜV approved
Utilisation category (AC)	4 A/230 V AC/1000 VA at $\cos\phi=1$
Max. switched DC current/voltage	2 A/30 V DC/60 W
Min. switched DC current/voltage	10 mA/10 V
Max. output fuse	5 A quick acting
Indication	LED 1 Green = Output closed LED 2 Amber 1 = Guard 1 open LED 3 Amber 2 = Guard 2 open
Max. drop out time	80 ms
Impulse withstand voltage	2500 V
Operating temperature	-10°C to +55°C
Pollution degree	3
Humidity	90% RH at +50°C
Degree of enclosure protection	IP40 DIN 0470
Terminal isolation	IP20 DIN 0470
Max. conductor size	2 x 1 mm ² stranded with sleeve stripped 8 mm, 2 x 1.5 mm ² solid conductor
Terminals	Plus-minus captive terminal screws M3 with self-adjusting connector washers
Weight	147 g
Material and colour	Red polycarbonate
Installation group	C in accordance with VDE 0110
Fixing details	35 mm DIN rail
Miscellaneous	Each unit can monitor up to six heads. If only one head is used, the other channel can be linked out

Sipha 1



control unit
(for use with Sipha sensors)

Sipha 2

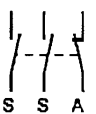
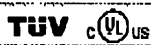


control unit
(for use with Sipha sensors)

Ferrotek



magnetically coded safety
interlock switch & control unit

contacts:						
S = safety						
A = auxiliary						
protection	IP20		IP20		IP67 switch, IP20 Controller	
conduit entries	N/A		N/A		Prewired	
fixing	35mm DIN Rail		35mm DIN Rail		M4 switch, 35mm DIN Rail	
switching capacity	250V AC, 4A 30V DC, 2A		250V AC, 4A 30V DC, 2A		250V AC 4A, 30V DC 2A	
conformity to standards	EN1088, EN60204-1, EN594-1 Cat 3		EN1088, EN60204-1, EN594-1 Cat 3		EN1088, EN60204-1	
third party approvals						
EMC tested	EMC		EMC		EMC /	
comments	Monitors operation of switches, monitors contactors		Monitors operation of switches, monitors contactors		Magnetically coded	
approx dimensions	81 x 22 x 99mm		73 x 45 x 120mm		82 x 19 x 19mm (switch)	
ordering details	Type Sipha 1 (24V AC/DC)	PartNo. 32013	Type Sipha 2 (24V AC/DC, 110/230V AC)	PartNo. 32021	Type Controller 24V AC/DC Switch & Actuator Power Supply Remote Indicator Actuator	PartNo. 32001 32002 32003 32004 32005

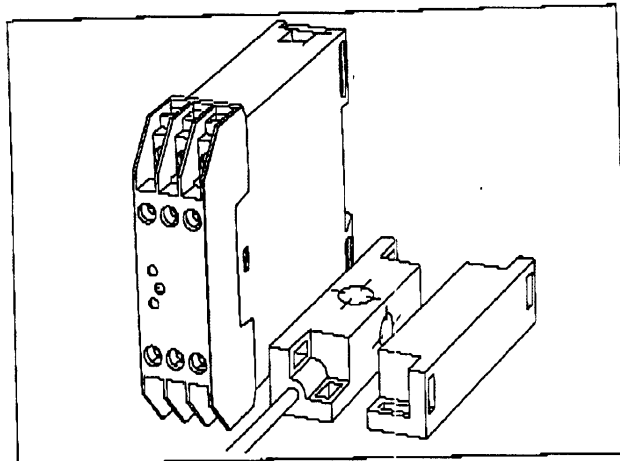
Guardmaster® CE See enclosed Declaration of Conformity for details.
 Siehe Anlage: Konformitätsklärung.
 Voir la déclaration de conformité ci-jointe pour détails.

Ferrotek

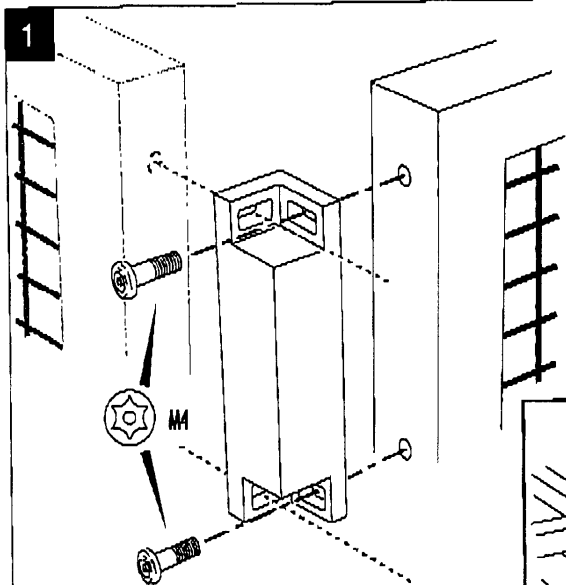
Coded Magnetic Safety Switch and Control Unit

Codierter Magnet - Sicherheitsschalter und Auswertgerät

Détecteur de sécurité magnétique et boîtier d'autocontrôle



INSTALLATION INSTRUCTIONS / MONTAGEANLEITUNG / NOTICE D'INSTALLATION



Note: Switching distance will be reduced if mounted on ferrous metal.
 Achtung: Schaltabstand wird bei Montage auf ferromagnetischem Material reduziert.

Note: la distance d'enclenchement sera diminuée si il est monté sur un support ferreux.

NOTE: Using anaerobic thread locking compounds can have a detrimental effect to the plastic switch case if the compounds come into contact with the switch case.

BEACHTEN: Anaerobe Gewindefestigungsmittel können das Kunststoffgehäuse des Schalters angreifen, falls sie mit dem Gehäuse in Kontakt kommen.

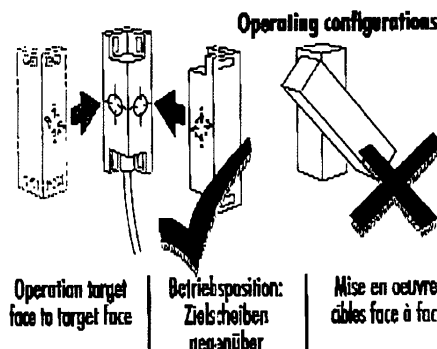
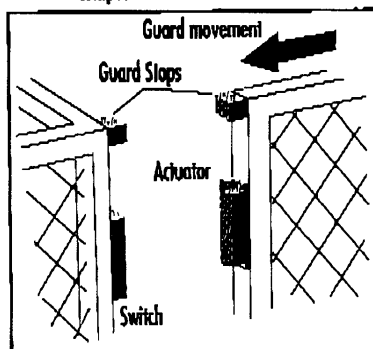
NOTE: L'utilisation d'un vernis de blocage sur le peut avoir un résultat désastreux sur le boîtier si ce vernis rentre en contact avec le plastic composant le boîtier.



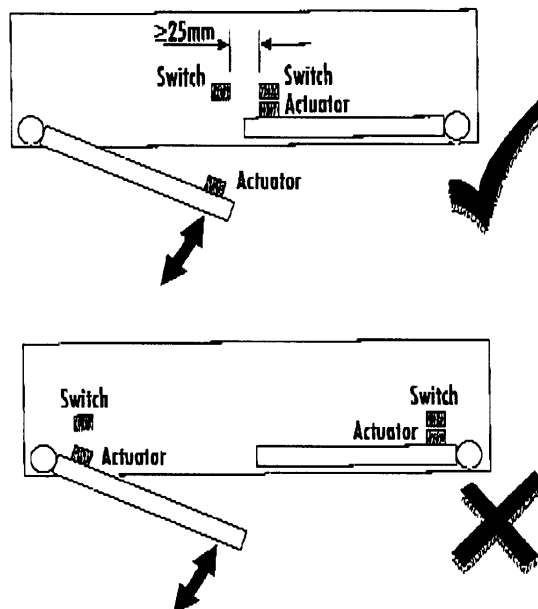
Misalignment Tolerance (when mounted on non-ferrous materials).

Max. Versatz (bei Montage auf nicht-ferromagnetischem Material)

Tolerance au mauvais alignement (quand il est monté sur un support non ferreux)



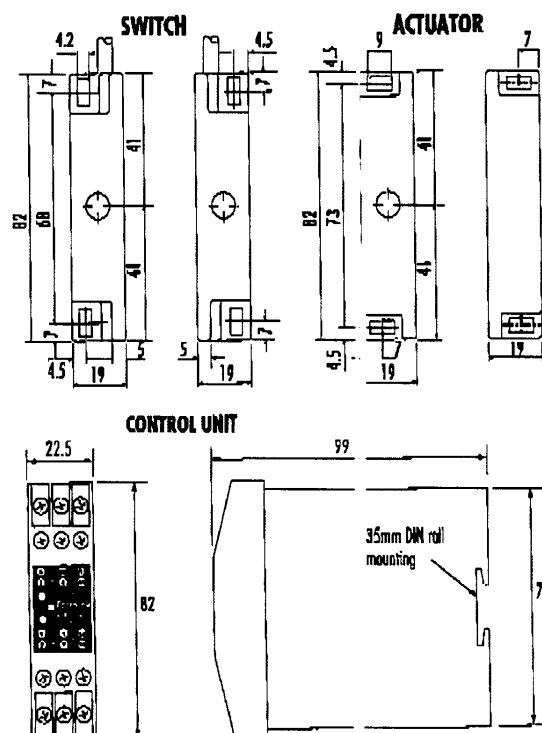
2



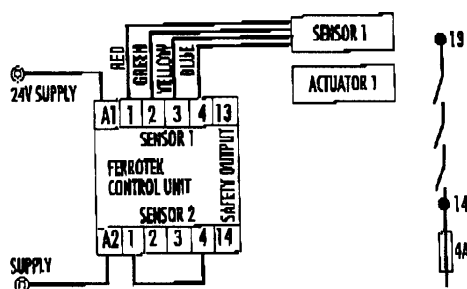
The head & Actuators must never be used without the correctly configured control unit.
 Schalter und Betätiger dürfen niemals ohne das betreffende Auswertgerät benutzt werden.

3

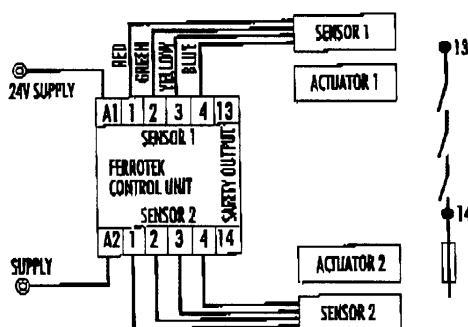
DIMENSIONS / DIMENSIONS / ABMESSUNGEN



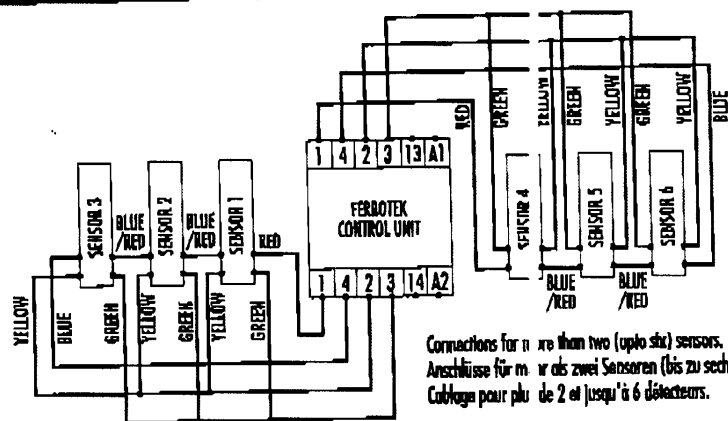
Wiring Examples / Anschlußbeispiele / Exemples de câblages



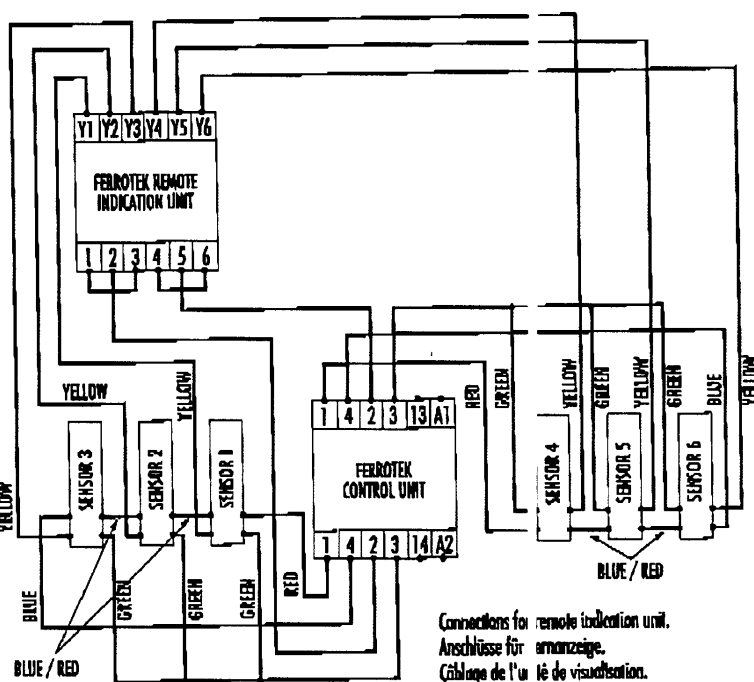
Connections for one sensor.
Anschlüsse für einen Sensor.
Câblage pour un détecteur.



Connections for two sensor.
Anschlüsse für zwei Sensoren.
Câblage pour deux détecteurs.



Connections for more than two (up to six) sensors.
Anschlüsse für mehr als zwei Sensoren (bis zu sechs).
Câblage pour plus de 2 et jusqu'à 6 détecteurs.



Connections for remote indication unit.
Anschlüsse für Fernanzeige.
Câblage de l'unité de visualisation.

Technical Specifications

Switch & Actuator Part No: 32002
Operating Position: Target to Target
Ambient temperature: -10°C to +55°C
Degree of protection: IP 67
Switch material: Moulded ABS
Contact arrangement: 1N/O, 1N/C
Make: 9mm
Break: 12mm
Mechanical life: 1x 10⁶
Colour: Red
Fixing: M4 fasteners

Control Unit Part No: 32001
Supply: 24V AC/DC ±15%
Power Consumption: <2VA
Indication: Yellow LED1 = Guard 1 Open
Yellow LED2 = Guard 2 Open
Green LED = Output Relays Closed
Safety Inputs: 1 or 2 sensors - Input selectable
Protection Category: IP 40
Terminals: IP 20
Relay outputs: 1 Normally Open, 5A 0/1 Fuse
Max Switching: 4A at 250V AC, 2A at 30V DC
Drop out time: 80ms
Mounting: 35mm DIN rail

For 110/230VAC use Power Supply Unit part no: 32003

NOTE: The warranty is invalidated if the security seals of the control unit are broken.
BEACHTEN: Die Garantie erlischt, wenn die Siegel am Auswertgerät aufgebrochen wurden!
NOTE: La garantie ne sera pas valable si le scellé de sécurité est rompu.

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Technische Daten

Schalter und Betätiger Bestell-Nr.: 32002
Farbe: Rot
Schutzart: IP 67
Befestigung: M4-Schrauben
Betriebsposition: Zielschreiben gegenüber
Schaltabstand AN: 9mm
Schaltabstand AB: 12mm
Kontakte: 1 O und 1 S
Betriebsleistung: -10°C bis +55°C
Mech. Lebensdauer: 10⁶ Schaltspiele

Auswertgerät Bestell-Nr.: 32001
Montage: Schnellbefestigung auf DIN-Normschiene
Schutzart: Gehäuse IP 40, Klemmen IP 20
Betriebsspannung: 24V AC/DC ±15%
Leistungsverbrauch: <2VA
Anzeigen: Gelbe LED 1 = Schutzstürz 1 offen
Gelbe LED 2 = Schutzstürz 2 offen
Grüne LED = Ausgangsrelais geschlossen
Eingänge: 1 oder 2 Sensoren
Freigabe-Ausgang: 1 Schließer, Sicherung 5A flink
Schaltleistung: 4A/250 VAC, 2A/30 VDC
Abfallzeit: 80ms

Für 110/230 VAC Netzteil Bestell-Nr.: 32003 verwenden

Specifications Techniques

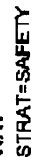
Détecteur de sécurité + aimant codé
Position de fonctionnement: Cibles face à face
Température ambiante: -10°C à +55°C
Indice de protection: IP67
Boîtier détecteur: Moulé ABS
Contacts du détecteur: 1N/O, 1N/C
Endlancement des contacts: 9mm
Déclenchement des contacts: 12mm
Durée de vie: 1x 10⁶
Couleur: Rouge
Fixations: M4

Boîtier d'autocontrôle
Alimentation: 24V AC/DC ±15%
Consommation: <2VA
Signalisation lumineuse: LED1 JAUNE = Porte 1 ouverte
LED2 JAUNE = Porte 2 ouverte
LED VERTE = Sorties relais fermées
1 ou 2 détecteurs - configurable
Boîtier: IP40

Entrées de sécurité: 1 ou 2 détecteurs - configurable
Indice de protection: IP40
Sorties relais: 1 normalement ouvert, 5A protection fusible
Pouvoir de coupure maximum: 4A sous 250V AC, 2A sous 30V DC
Temps de cycle: 80ms
Montage: 35mm rail DIN

Pour utilisation du 110/230VAC, il est nécessaire d'utiliser le module d'alimentation Ref: 32003

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Télécopie: (31) 39 83 28 1

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