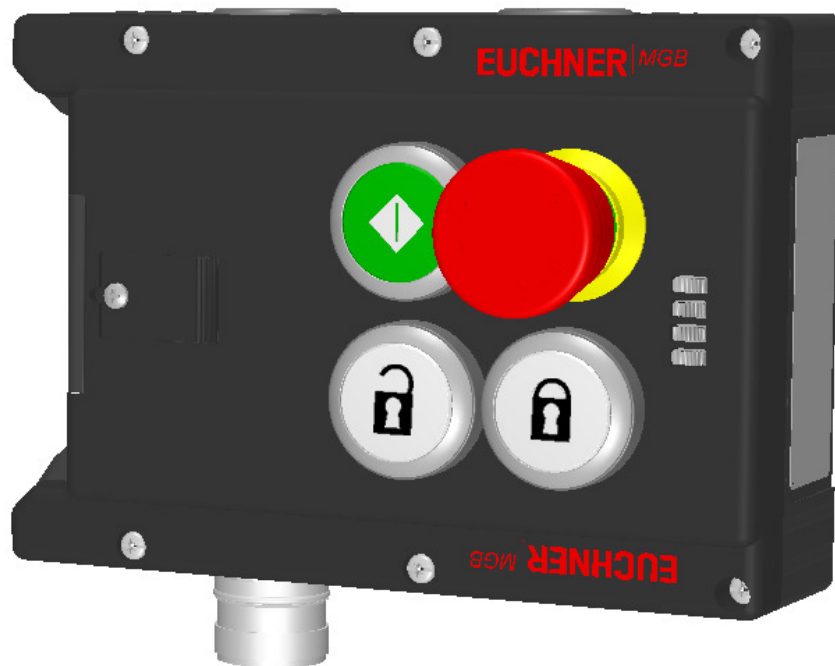


ITEM 110501 MGB-L2-APA-AC6A1-S1-L-110501

| Description | Technical data | Accessories | Downloads |
|-------------|----------------|-------------|-----------|
|-------------|----------------|-------------|-----------|



Features

- › Guard locking with guard lock monitoring
- › Emergency stop according to ISO 13850
- › 2 pushbuttons, illuminated (gn, wh)
- › 1 pushbutton, not illuminated (wh)
- › With plug connector RC18
- › Unicode

Guard locking type

MGB- The locking arm is kept in locked position by solenoid force and
L2... unlocked by spring force when the solenoid is switched off (open-circuit current principle, electrically locked).

Door hinge

A mechanical door stop is permanently integrated into the evaluation module of the MGB. A marking on the stop makes adjustment easier.

LED indicator

The LED indicator indicates all important system and status information.

Monitoring outputs

- OT** Bolt tongue inserted in the evaluation module
- OI** Diagnostics; there is a fault

Emergency stop device

- S1** 2 positively driven NC contacts, emergency stop with turn-to-reset, not illuminated

Pushbutton

- S2** 1 NO contact, illuminated
- S3** 1 NO contact, illuminated
- S4** 1 NO contact, not illuminated

Approvals



Mechanical values and environment

| | |
|--|--|
| Housing material | Reinforced plastic; die-cast zinc nickel-plated, stainless steel |
| Weight | Net 0,75 kg |
| Ambient temperature | At $U_B = 24V$ DC -20 ... 55 °C |
| Degree of protection | IP65 |
| Mechanical life | 1×10^6 |
| In case of use as door stop, and 1 Joule impact energy | $0,1 \times 10^6$ |
| Installation position | Door hinge DIN left |
| Switching frequency | 0,25 Hz |
| Connection | Plug connector RC18 [1] |
| Guard locking principle | Open-circuit current principle |
| Locking force F_{Zh} | 2000 N |

Electrical connection ratings

| | |
|--|---------------------|
| Utilization category according to EN 60947-5-2 | DC-13 24V 200mA [2] |
|--|---------------------|

| | |
|---|---|
| Rated insulation voltage U_i | 30 V |
| Rated impulse withstand voltage U_{imp} | 1,5 kV |
| Degree of contamination (external, according to EN 60947-1) | 3 |
| Safety class | III |
| Discrepancy time | |
| Between FO1A and FO1B | max.10 ms |
| Risk time according to EN 60947-5-3 | max.350 ms |
| Transponder coding | Unicode |
| | Power supply U_B |
| Operating voltage DC | |
| U_B | 24 V DC -15% ... 10% [3] |
| Current consumption | |
| I_{UB} | max.80 mA [4] |
| | Power supply U_A |
| Operating voltage DC | |
| U_A | 24 V DC -15% ... 10% [5] |
| Current consumption | |
| I_{UA} | max.375 mA [6] |
| | Safety outputs FO1A, FO1B |
| Test pulses | max.0,3 ms |
| Test-pulse interval | min.100 ms |
| Type of output | Semiconductor outputs, p-switching, short circuit-proof |
| Output voltage | |
| $U_{FO1A} / U_{FO1B} \text{ HIGH}$ | $U_B - 2V \dots U_B \text{ V DC}$ [7] |
| $U_{FO1A} / U_{FO1B} \text{ LOW}$ | 0 ... 1 V DC |
| Output current | |
| Per safety output FO1A / FO1B | 1 ... 200 mA |
| | Monitoring outputs OD, OT, OL, OI |
| Type of output | Semiconductor outputs, p-switching, short circuit-proof |
| Output voltage | $U_A - 2V \dots U_A \text{ V DC}$ [8] |
| Output current | max.50 mA |
| | Controls and indicators |
| Switching voltage | $U_A \text{ V}$ |
| Switching current | 1 ... 10 mA |
| Breaking capacity | max.0,25 W |
| Power supply LED | 24 V DC |
| | Emergency stop |
| Switching voltage | 5 ... 24 V |
| Switching current | 1 ... 100 mA |
| Breaking capacity | max.0,25 W |
| Power supply LED | 24 V DC |
| | Solenoid control input IMP1, IMP2, IMM |
| Test pulses | max.5 ms |
| Test-pulse interval | min.100 ms |

Controls and indicators

| | |
|--------------------|--------------------------|
| Assignment diagram | L1 |
| Control/indicator | |
| | Position 1 |
| Version | Emergency stop |
| Special features | With auxiliary contact |
| Color | |
| Switching element | 2 pos. driven NC + 1NO |
| Control/indicator | |
| | Position 2 |
| Version | Illuminated push buttons |
| Special features | Printed |
| Color | Green |
| Switching element | 1NO |
| Control/indicator | |
| | Position 3 |
| Version | Illuminated push buttons |
| Special features | Printed |
| Color | white |
| Switching element | 1NO |
| Control/indicator | |
| | Position 4 |
| Version | Button |
| Special features | Printed |
| Color | white |
| Switching element | 1NO |

Miscellaneous

| | |
|------------------------|--------|
| Product version number | V3.0.3 |
|------------------------|--------|

Reliability values acc. to EN ISO 13849-1

| | |
|-------------------|--|
| | Monitoring of guard locking and the safety guard position |
| Category | 4 |
| Performance Level | PL e |
| PFH _D | 3.7×10^{-9} |
| | Emergency stop |
| B10 _D | |
| Emergency stop | $0,065 \times 10^6$ |
| Mission time | 20 y |

[1] X6

[2] Caution: outputs must be protected with a free-wheeling diode in case of inductive loads.

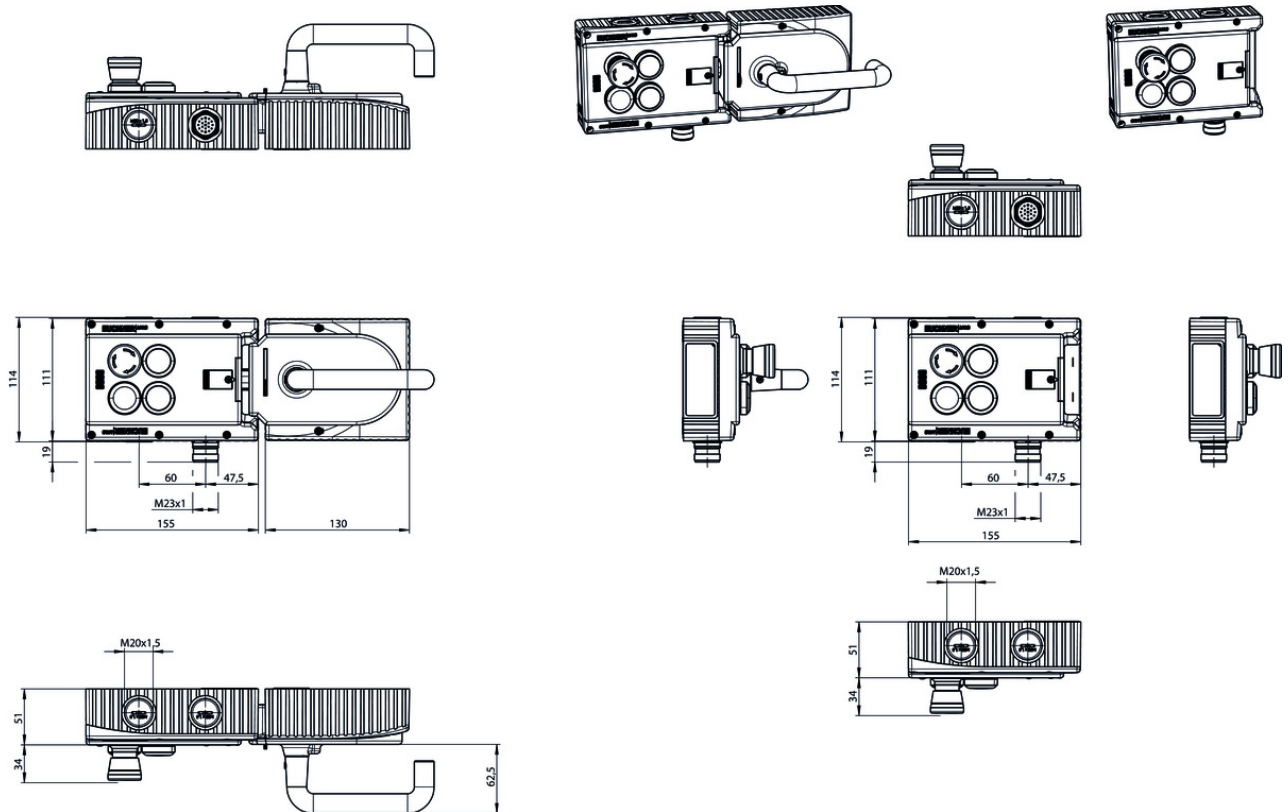
[3, 5] (Reverse polarity protected, regulated, residual ripple <5%, PELV)

[4] (no load on outputs)

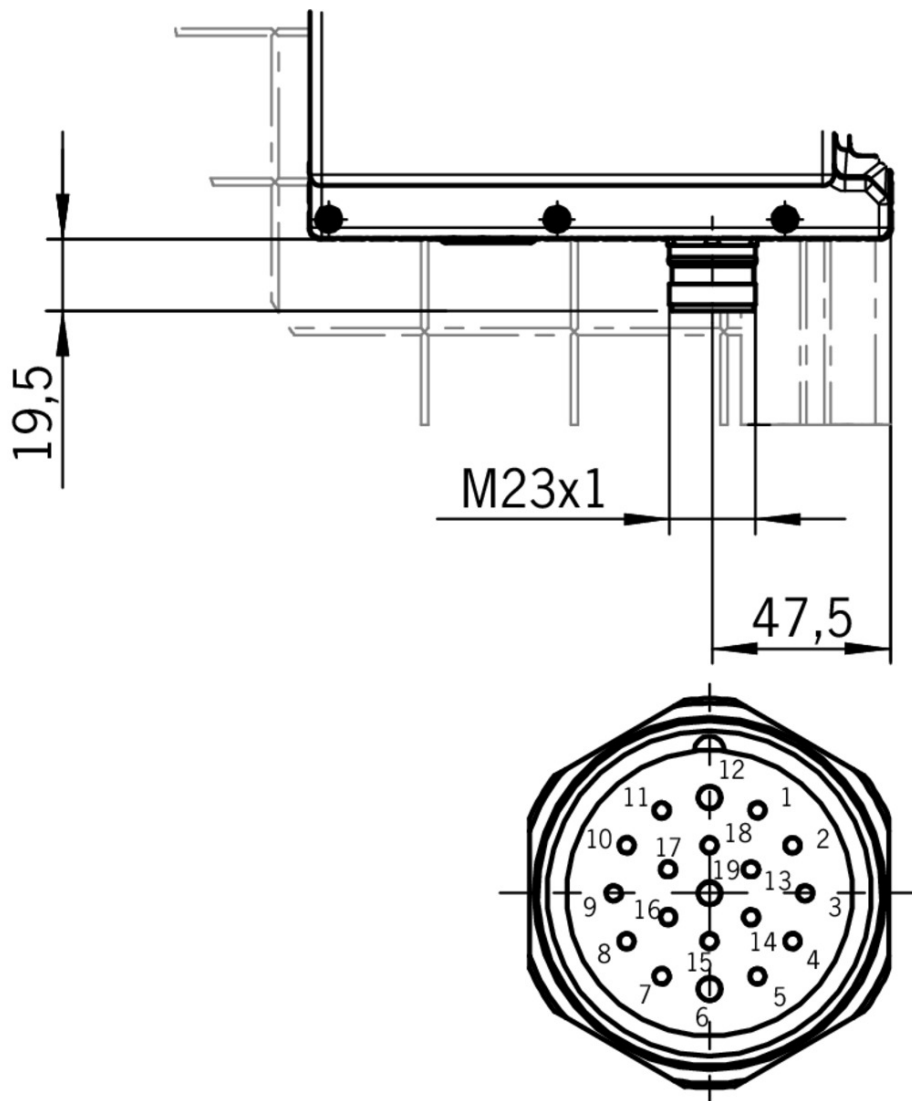
[6] (With energized guard locking solenoid and unloaded outputs OD, OT, OL, OI, +20 °C, 24V)

[7, 8] Value at a switching current of 50mA without taking into account the cable lengths

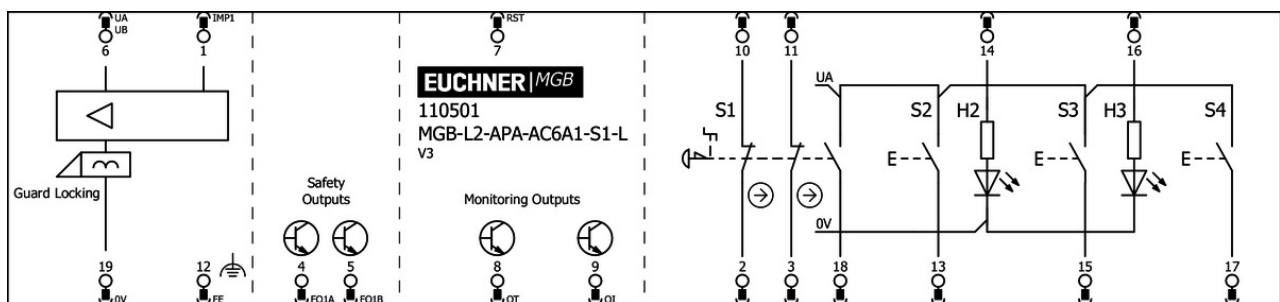
Dimension drawing



Dimension drawing



Plug connector RC18



Mounting accessories

- ✓ Mounting plate for evaluation modules MGB-L.-AR.-... and MGB-L.-AP.-...



109490 MGB-A-MOUNTINGPLATE-L-109490

- ✓ Features

- › Easy and quick mounting (only two screws required)
- › Quick module replacement

- › Steel, powder-coated
 - › Suitable for doors hinged on the right or left
-

Connection material

- ▼ Female plug RC18 straight with option C1825



077025 RC18EF-C1825

▼ Features

- › Plug connector M23, straight
 - › Number of pins: 19-pin with screen bonding clamp
-

- ▼ Replacement crimp contacts for female connector RC18 with option C1825

094310 CRIMPKONTAKT BUCHSE RCF-C1825

▼ Features

- › 19 crimp sockets
 - › Conductor cross-section 16 x 0.25 - 0.5 mm² and 3 x 0.75 - 1 mm²
 - › For plug connector RC18..C1825
-

- ▼ Connection cable with plug connector M23 with option C1825, 1.5m, straight



092761 C-M23F19-19XDIFPU01,5-MA-092761

▼ Features

- › M23 plug connector, 18-pin + PE
 - › Straight plug connector
 - › PUR cable
 - › Cable length 1.5 m
 - › With flying lead
 - › Cores color-coded
-

- ▼ Connection cable with plug connector M23 with option C1825, 3m, straight



092816 C-M23F19-19XDIFPU03,0-MA-092816

▼ Features

- › M23 plug connector, 18-pin + PE
 - › Straight plug connector
 - › PUR cable
 - › Cable length 3 m
 - › With flying lead
 - › Cores color-coded
-

- ▼ Connection cable with plug connector M23 with option C1825, 6m, straight



077014 C-M23F19-19XDIFPU06,0-MA-077014

▼ Features

- › M23 plug connector, 18-pin + PE
- › Straight plug connector
- › PUR cable
- › Cable length 6 m
- › With flying lead

- › Cores color-coded
-

- ▼ Connection cable with plug connector M23 with option C1825, 8m, straight



077015 C-M23F19-19XDIFPU08,0-MA-077015

▼ Features

- › M23 plug connector, 18-pin + PE
 - › Straight plug connector
 - › PUR cable
 - › Cable length 8 m
 - › With flying lead
 - › Cores color-coded
-

- ▼ Connection cable with plug connector M23 with option C1825, 10m, straight



092898 C-M23F19-19XDIFPU10,0-MA-092898

▼ Features

- › M23 plug connector, 18-pin + PE
 - › Straight plug connector
 - › PUR cable
 - › Cable length 10 m
 - › With flying lead
 - › Cores color-coded
-

- ▼ Connection cable with plug connector M23 with option C1825, 15m, straight



077016 C-M23F19-19XDIFPU15,0-MA-077016

▼ Features

- › M23 plug connector, 18-pin + PE
 - › Straight plug connector
 - › PUR cable
 - › Cable length 15 m
 - › With flying lead
 - › Cores color-coded
-

- ▼ Connection cable with plug connector M23 with option C1825, 20m, straight



092726 C-M23F19-19XDIFPU20,0-MA-092726

▼ Features

- › M23 plug connector, 18-pin + PE
 - › Straight plug connector
 - › PUR cable
 - › Cable length 20 m
 - › With flying lead
 - › Cores color-coded
-

- ▼ Connection cable with plug connector M23 with option C1825, 25m, straight



092727 C-M23F19-19XDIFPU25,0-MA-092727

▼ Features

- › M23 plug connector, 18-pin + PE
- › Straight plug connector

- › PUR cable
- › Cable length 25 m
- › With flying lead
- › Cores color-coded

▼ Connection cable with plug connector M23 with option C1825, 30m, straight



095993 C-M23F19-19XDIFPU30,0-MA-095993

▼ Features

- › M23 plug connector, 18-pin + PE
- › Straight plug connector
- › PUR cable
- › Cable length 30 m
- › With flying lead
- › Cores color-coded

▼ Connection cable with plug connector M23 with option C1825, 40m, straight



102490 C-M23F19-19XDIFPU40,0-MA-102490

▼ Features

- › M23 plug connector, 18-pin + PE
- › Straight plug connector
- › PUR cable
- › Cable length 40 m
- › With flying lead
- › Cores color-coded

Function expansion

▼ Emergency unlocking for safety system MGB



112989 MGB-A-EMERGENCYRELEASE-112989

▼ Features

- › Quick emergency unlocking
- › sealable

Miscellaneous accessories

▼ Lens set labeled



126158 AY-SET-LNS-SY03-126158



125359 AY-SET-LNS-SY02-125359



120377 AY-SET-LNS-SY01-120377

▼ Lens set 5 colors



120344 AY-SET-LNS-0001-120344

▼ Lens set 6 colors



120378 AY-SET-LNS-0002-120378

▼ Lens set, three colors



158307 AY-SET-LNS-SY04-158307

Instructions

▼ Návod k použití – bezpečnostní systémy MGB-L1...AR.-... / MGB-L2...AR.-... a MGB-L1...AP.-... / MGB-L2...AP.-... od V3.0.0

| | Doc. no. | Version | Language | Download |
|--|----------|----------|----------|----------|
| Betriebsanleitung MGB-L1...AR.-... / MGB-L2...AR.-... und MGB-L1...AP.-... / MGB-L2...AP.-... ab V3.0.0 | 2119167 | 04-05/18 | | 3.7 MB |
| Mode d'emploi MGB-L1...AR.-... / MGB-L2...AR.-... et MGB-L1...AP.-... / MGB-L2...AP.-... à partir de V3.0.0 | 2119167 | 04-05/18 | | 3.7 MB |
| Manual de instrucciones MGB-L1...AR.-... / MGB-L2...AR.-... y MGB-L1...AP.-... / MGB-L2...AP.-... V3.0.0 o superior | 2119167 | 04-05/18 | | 3.7 MB |
| Návod k použití – bezpečnostní systémy MGB-L1...AR.-... / MGB-L2...AR.-... a MGB-L1...AP.-... / MGB-L2...AP.-... od V3.0.0 | 2119167 | 04-05/18 | | 4.0 MB |
| Operating Instructions MGB-L1...AR.-... / MGB-L2...AR.-... and MGB-L1...AP.-... / MGB-L2...AP.-... from V3.0.0 | 2119167 | 04-05/18 | | 3.7 MB |
| Istruzioni di impiego MGB-L1...AR.-... / MGB-L2...AR.-... und MGB-L1...AP.-... / MGB-L2...AP.-... da V3.0.0 | 2119167 | 04-05/18 | | 3.7 MB |
| Handleiding MGB-L1...AR.-... / MGB-L2...AR.-... en MGB-L1...AP.-... / MGB-L2...AP.-... vanaf V3.0.0 | 2119167 | 04-05/18 | | 3.7 MB |
| Instrukcja obsługi MGB-L1...AR.-... / MGB-L2...AR.-... i MGB-L1...AP.-... / MGB-L2...AP.-... od V3.0.0 | 2119167 | 04-05/18 | | 4.0 MB |
| Manual de instruções MGB-L1...AR.-... / MGB-L2...AR.-... e MGB-L1...AP.-... / MGB-L2...AP.-... a partir de V3.0.0 | 2119167 | 04-05/18 | | 3.7 MB |

| | | | | |
|---|---------|----------|--|--------|
| Инструкция по эксплуатации MGB-L1...AR.-... / MGB-L2...AR.-... и MGB-L1...AP.-... / MGB-L2...AP.-... с V3.0.0 | 2119167 | 04-05/18 | | 4.2 MB |
| Návod na prevádzku Bezpečnostné systémy MGB-L1...AR.-... / MGB-L2...AR.-... a MGB-L1...AP.-... / MGB-L2...AP.-... od V3.0.0 | 2119167 | 04-05/18 | | 4.0 MB |
| Instruktionsbok MGB-L1...AR.-... / MGB-L2...AR.-... och MGB-L1...AP.-... / MGB-L2...AP.-... fr. V3.0.0 | 2119167 | 04-05/18 | | 3.7 MB |
| İşletim kılavuzu MGB-L1...AR.-... / MGB-L2...AR.-... ve MGB-L1...AP.-... / MGB-L2...AP.-... itibaren V3.0.0 | 2119167 | 04-05/18 | | 4.1 MB |
| 操作指示書 安全システム MGB-L1...AR.-... / MGB-L2...AR.-... および MGB-L1...AP.-... / MGB-L2...AP.-... V3.0.0以降 | 2119167 | 04-05/18 | | 4.1 MB |
| 使用说明书 安全系统 MGB-L1...AR.-... / MGB-L2...AR.-... 和 MGB-L1...AP.-... / MGB-L2...AP.-... V3.0.0 以上 | 2119167 | 04-05/18 | | 4.1 MB |







Sicherheitsinformation (Teil der Betriebsanleitung Sicherheitssystem MGB-AR/MGB-AP) ab V3.0.0

| | Doc. no. | Version | Language | Download |
|---|----------|----------|----------------------|----------|
| Sicherheitsinformation (Teil der Betriebsanleitung Sicherheitssystem MGB-AR/MGB-AP) ab V3.0.0 Información de seguridad (parte del manual de instrucciones Sistema de seguridad MGB-AR/MGB-AP) V3.0.0 o superior Information de sécurité (partie du mode d'emploi Système de sécurité MGB-AR/MGB-AP) à partir de V3.0.0 Informazioni sulla sicurezza (Parte delle istruzioni di impiego Sistema di sicurezza MGB-AR/MGB-AP) da V3.0.0 Säkerhetsinformation (Del av instruktionsboken Säkerhetssystem MGB-AR/MGB-AP) från V3.0.0 Safety Information (Part of the Operating Instructions Safety System MGB-AR/MGB-AP) from V3.0.0 | 123151 | 01-02/15 | | 0.6 MB |
| Veiligheidsinformatie (Deel van de handleiding Beveiligingssysteem MGB-AR/MGB-AP) vanaf V3.0.0 | 123151 | 01-02/15 | | 0.2 MB |
| Informação de segurança (Parte do manual de instruções Sistema de segurança MGB-AR/MGB-AP) a partir de V3.0.0 | 123151 | 01-02/15 | | 0.2 MB |
| Bezpečnostní informace (součást návodu k použití „Bezpečnostní systém MGB-AR/MGB-AP“) od V3.0.0 | 123151 | 01-02/15 | | 0.2 MB |
| Informacje o bezpieczeństwie (Część instrukcji obsługi System bezpieczeństwa MGB-AR/MGB-AP) od V3.0.0 | 123151 | 01-02/15 | | 0.2 MB |
| Информация о безопасности (часть инструкции по эксплуатации Предохранительная система MGB-AR/MGB-AP) с V3.0.0 | 123151 | 01-02/15 | | 0.3 MB |

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|--|--------|----------|---|--|
| Bezpečnostná informácia (časť návodu na prevádzku Bezpečnostný systém MGB-AR/MGB-AP) od V3.0.0 | 123151 | 01-02/15 |  |  0.2 MB |
| Güvenlik bilgisi (İşletim kılavuzunun parçası emniyet sistemi MGB-AR/MGB-AP) V3.0.0 ve üstü | 123151 | 01-02/15 |  |  0.3 MB |
| 安全信息 (安全系统 MGB-AR/MGB-AP使用说明书的组成部分) V3.0.0以上 | 123151 | 01-02/15 |  |  0.3 MB |
| 安全情報 MGB-AR/MGB-AP | 123151 | 01-02/15 |  |  0.6 MB |

Declaration of conformity

EU-Konformitätserklärung

| | Doc. no. | Version | Language | Download |
|--|----------|----------|---|--|
| EU-Konformitätserklärung Declaración UE de conformidad Déclaration UE de conformité Dichiarazione di conformità EU declaration of conformity | 2123150 | 08-01/17 |      |  0.3 MB |