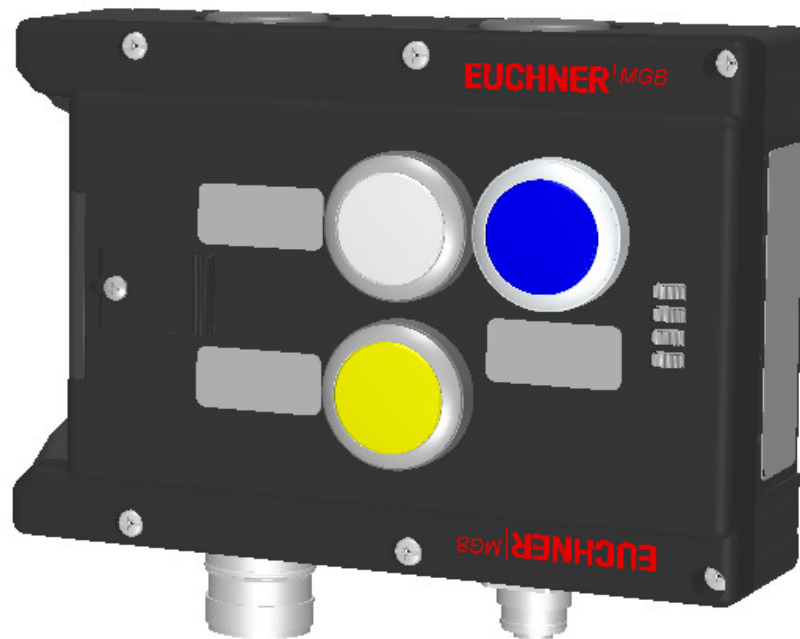


ITEM 116429 MGB-L1-APA-AH9A1-S5-L-116429

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



Features

- › Guard locking with guard lock monitoring
- › 3 pushbuttons (illuminated, bu, wh, ye)
- › Incl. adhesive labels
- › With plug connector RC18
- › With plug connector M12 for enabling switch
- › Unicode

Guard locking type

MGB- The locking arm is held in the locked position by spring force and is **L1...** unlocked by solenoid force (closed-circuit current principle, mechanically 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

Pushbutton

- S1** 1 NO contact, blue, illuminated
- S2** 1 NO contact, white, illuminated
- S3** 1 NO contact, yellow, illuminated

Connection for enabling switch

The device has an M12 plug connector for the direct connection of an enabling switch (e.g. ZSA, order no.: 110560).

Adhesive labels

Devices with adhesive labels have pre-formed recesses. The adhesive labels enclosed (standard size 12.5 x 27 mm) can be affixed in these recesses.

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] Plug connector SFF5 [2]
Guard locking principle	Closed-circuit current principle

Locking force F_{Zh}	2000 N
------------------------	--------

Electrical connection ratings

Utilization category according to EN 60947-5-2	DC-13	24V 200mA ^[3]
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% ^[4]
Current consumption	I_{UB}	max.80 mA ^[5]
Power supply U_A		
Operating voltage DC	U_A	24 V DC -15% ... 10% ^[6]
Current consumption	I_{UA}	max.375 mA ^[7]
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	$U_{FO1A} / U_{FO1B} \text{ HIGH}$ $U_{FO1A} / U_{FO1B} \text{ LOW}$	$U_B - 2V \dots U_B \text{ V DC}$ ^[8] 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		$U_A - 2V \dots U_A \text{ V DC}$ ^[9]
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
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	Illuminated push buttons
Special features	
Color	Blue
Switching element	1NO
Control/indicator	
	Position 2
Version	Illuminated push buttons
Special features	
Color	white
Switching element	1NO
Control/indicator	
	Position 3
Version	Illuminated push buttons
Special features	
Color	Yellow
Switching element	1NO

Miscellaneous

Product version number	V3.0.3
Slide-in label	
	3 pc. without marking
	Access request
	Safety system ON
	Safety system OFF

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}
	Control of the guard locking
Category	4
Performance Level	PL e
PFH _D	2.8×10^{-9}

[1] X6

[2] X7

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

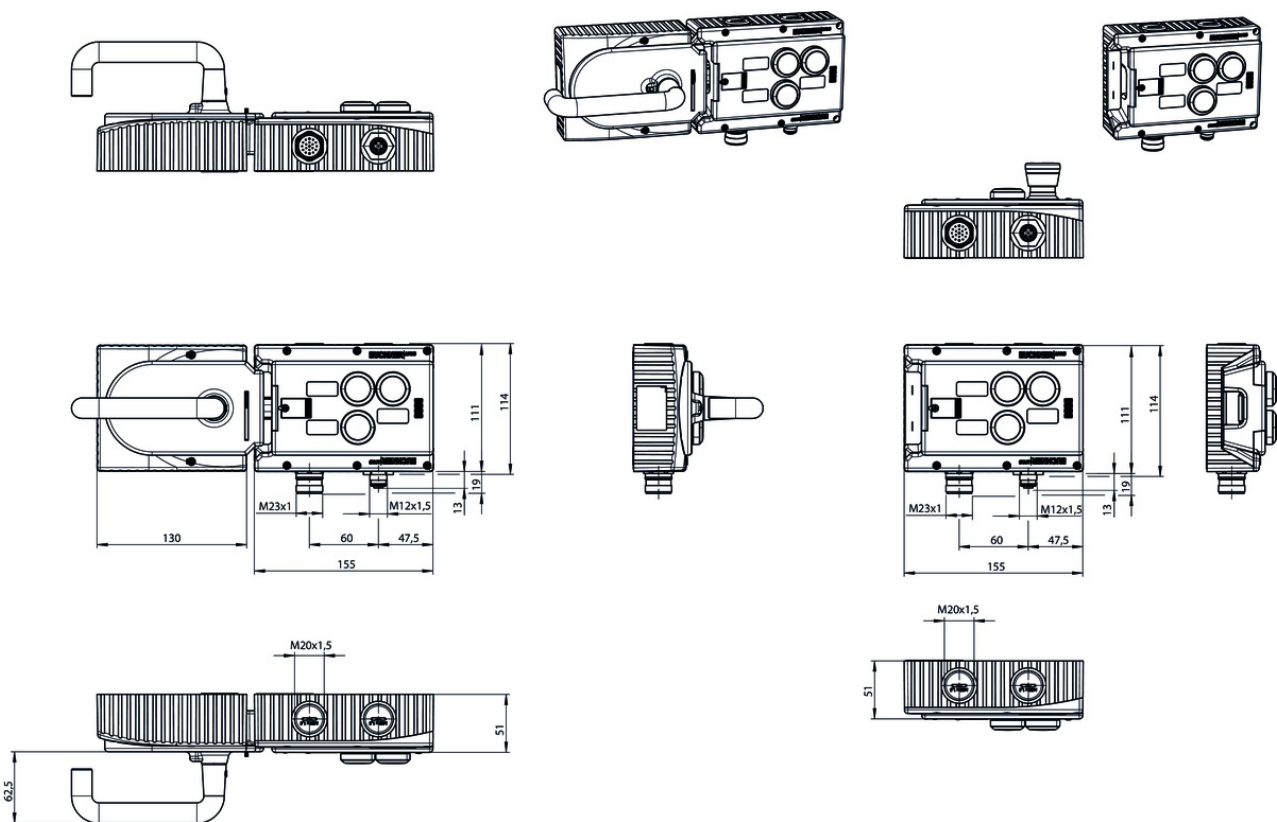
[4, 6] (Reverse polarity protected, regulated, residual ripple <5%, PELV)

[5] (no load on outputs)

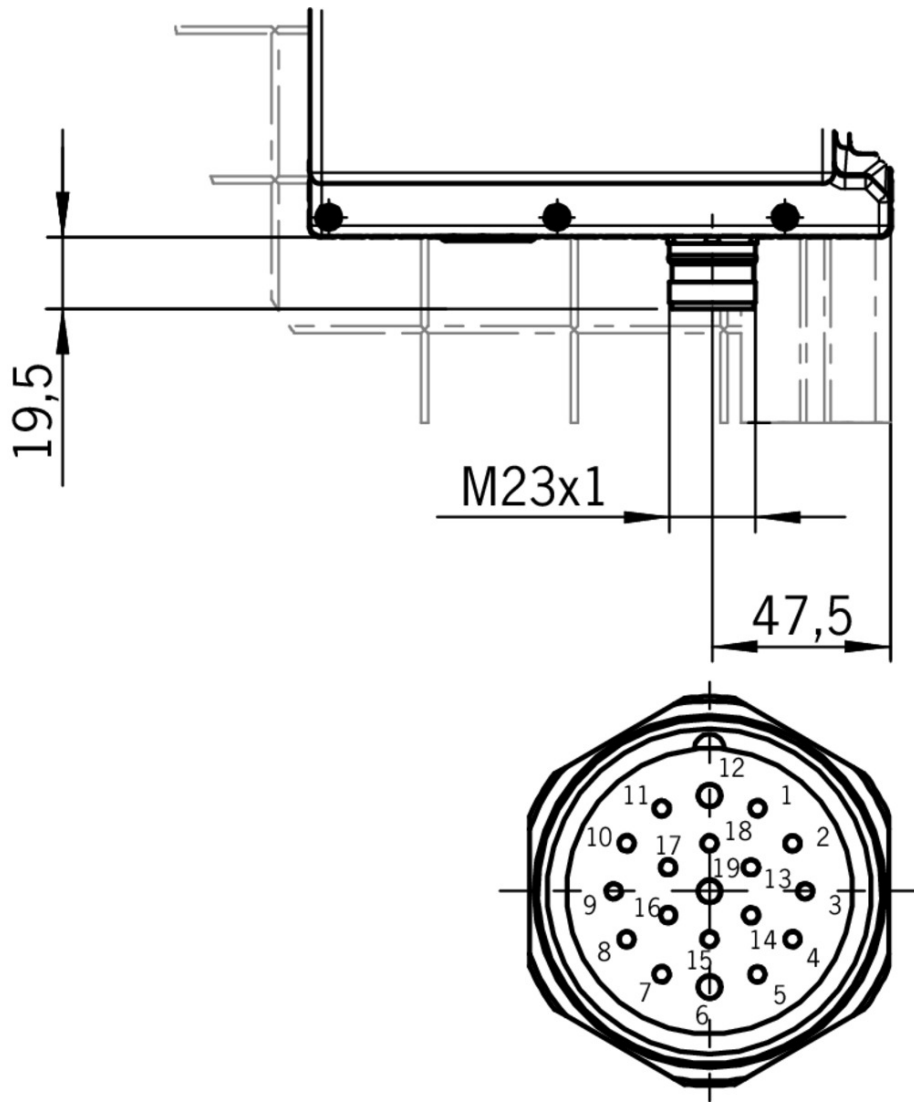
[7] (With energized guard locking solenoid and unloaded outputs OD, OT, OL, OI, +20 °C, 24V)

[8, 9] Value at a switching current of 50mA without taking into account the cable lengths

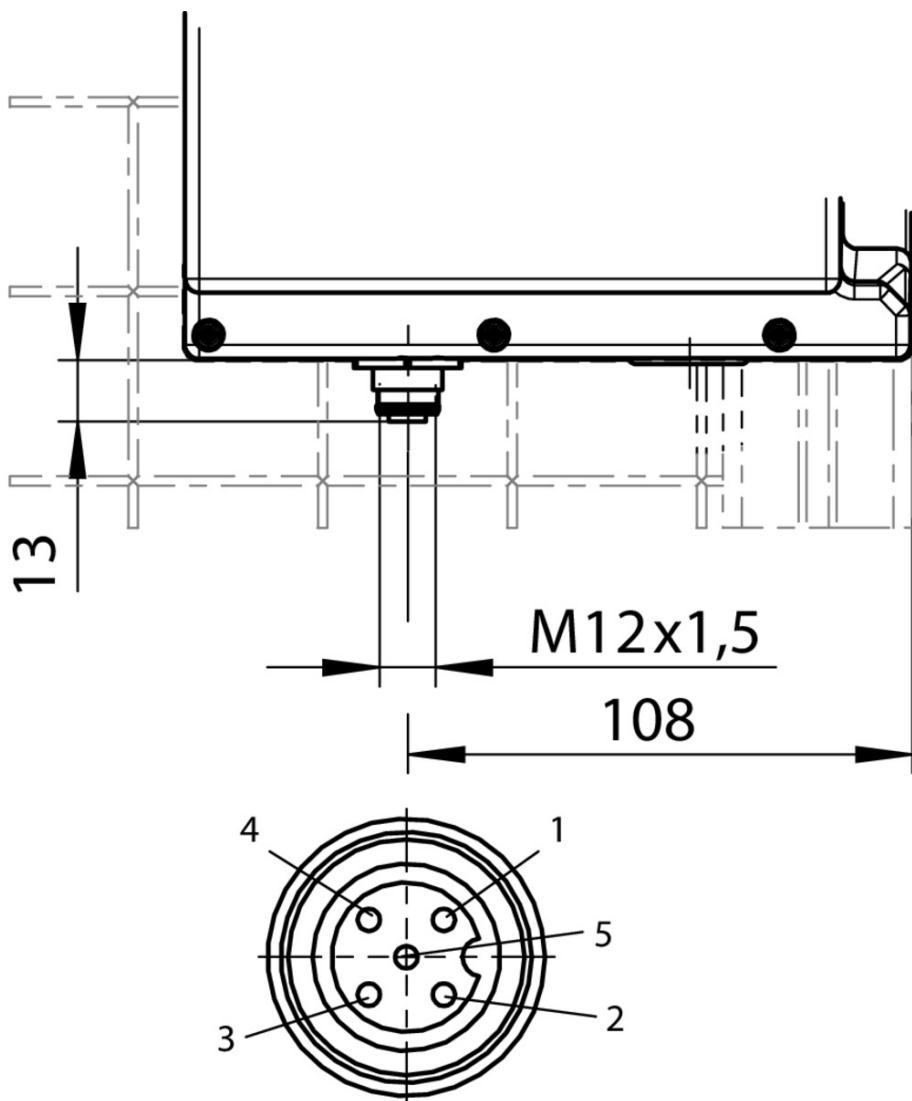
Dimension drawing



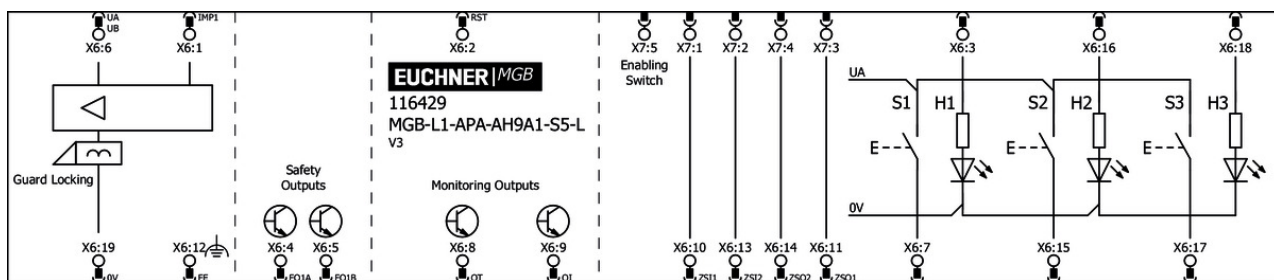
Dimension drawing



Dimension drawing



Plug connector RC18



Miscellaneous accessories

☑ Lens set 5 colors



120344 AY-SET-LNS-0001-120344

☑ Lens set 6 colors



120378 AY-SET-LNS-0002-120378

▼ Lens set labeled



120377 AY-SET-LNS-SY01-120377



126158 AY-SET-LNS-SY03-126158



125359 AY-SET-LNS-SY02-125359

▼ Adhesive labels

114529 MGB-A-PLATESET-NN01-114529

▼ Features

- › Adhesive labels suitable for MGB evaluation modules, bus modules and control modules
 - › silver, blank
 - › Packaging unit = 10 pcs.
-

▼ Lens set, three colors



158307 AY-SET-LNS-SY04-158307

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

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	123151	01-02/15	     	 0.6 MB
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				
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
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