

## Enabling switches ZSA and ZSB



- ▶ Housing G1
- ▶ 3-stage function
- ▶ Positively driven contacts
- ▶ Dual-channel version
- ▶ Optional with 2 buttons (+ and -)



### 3-stage function

Enabling function is only active in the second stage (middle position, actuating point). Enabling is cancelled when the button is released or pushed all the way down (panic function).

### + and - buttons

These buttons can be configured individually. For example, for moving axes in positive or negative direction.

### AS-Interface inputs

- ▶ **D0, D1** NO contact E1
- ▶ **D2, D3** NO contact E2

Evaluation is performed via a safety monitor.

### AS-Interface parameters

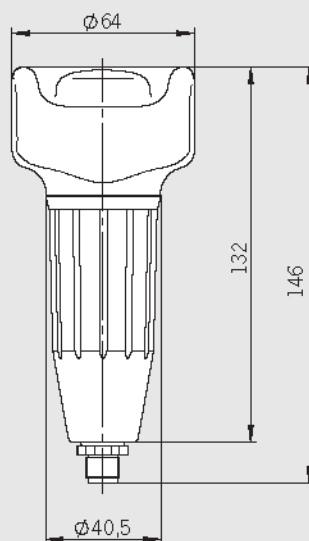
The buttons (+ and -) are transferred when the AS-i parameters are read out.

- ▶ **P0** Parameter bit, Plus button
- ▶ **P1** Parameter bit, Minus button

### ZSA, 3-stage function

Plug connector M12, 4-pin

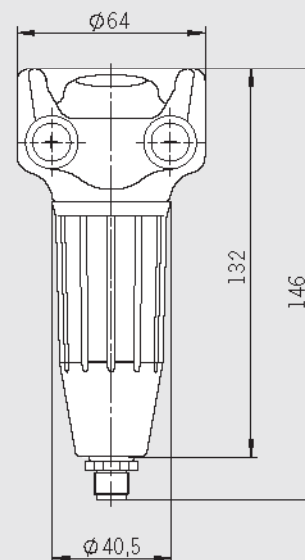
#### Dimension drawings



Refer to the catalog of Enabling Switches for accessories

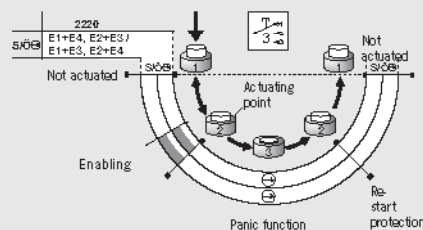
### ZSB, 3-stage function

Plug connector M12, 4-pin



Refer to the catalog of Enabling Switches for accessories

### Function sequence



**Contact**  
 Open  
 closed  
 closed, enabling

### Ordering table

Design	Connection	Switching element	Version	Order No./item
<b>G1</b> 3-stage	<b>SEM4</b> Plug connector M12	2 NO 3-stage		<b>091 580</b> ZSA2B2CAS1
			2 buttons (+ and -)	<b>096 703</b> ZSB2B7CAS1

## Enabling switch ZSA and ZSB



### Hand-held version G1

Parameter	Value	Unit
Housing material	Polyamide, black	
Protective cap material	CR (neoprene), black	
Ambient temperature	- 5 to + 50	°C
Weight	Approx. 0.4 (no cable)	kg

### AS-Interface connection



Parameter	Value	Unit
Connection	Plug connector	
Version	M12 (4-pin)	
Degree of protection according to IEC 60529	IP 67 <sup>a)</sup> / IP 65 with buttons <sup>a)</sup>	
Rated insulation voltage U <sub>i</sub>	50	V AC/DC
Switching principle	Three-stage, two-channel 2 NO	
EMC protection requirements	Acc. to EN 50295 (AS-Interface standard) and IEC 62026	
<b>AS-Interface data</b>		
Acc. to AS-Interface Specification 2.1	EA code: 7	ID code: B
Total current consumption, max.	45	mA
Valid AS-Interface addresses	1 - 31	
<b>AS-Interface inputs</b>		
	In accordance with AS-Interface Safety at Work	
NO contact E1	D0, D1	
NO contact E2	D2, D3	
Plus button (only ZSB)	Parameter bit P0	
Minus button (only ZSB)	Parameter bit P1	

2) Screwed tight with the related plug connector

## Accessories

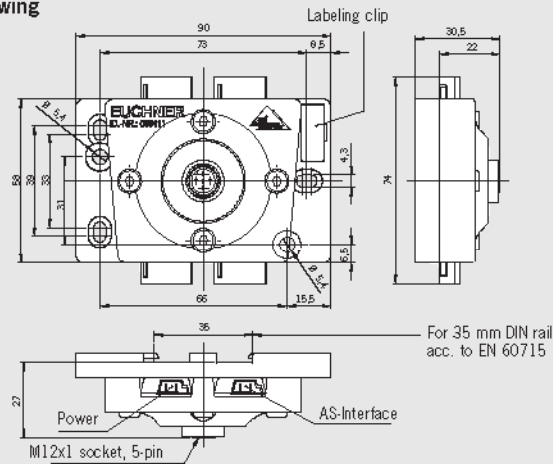
### ▶ Passive bus coupling module BCM-A-P1...



For connection of components with integrated AS-interface and M12 plug connector to the AS-interface ribbon cables. Both the bus and auxiliary power are converted from the ribbon cable to an M12 socket. The coupling module is suitable for safety components and for standard components. It is particularly suitable for EUCHNER safety switches with guard locking.

### Passive bus coupling module BCM-A-P1...

#### Dimension drawing



#### Ordering table

Version	Connections	Order No./item
BCM-A-P1	AS ribbon cable, auxiliary power ribbon cable M12-socket	<b>089 411</b> BCM-A-P1-SEM4-1
	Connection cable M12 with straight plug connectors, length 1 m PUR	<b>089 420</b> Connection cable M12

### Accessories for CES...AS1 evaluation units

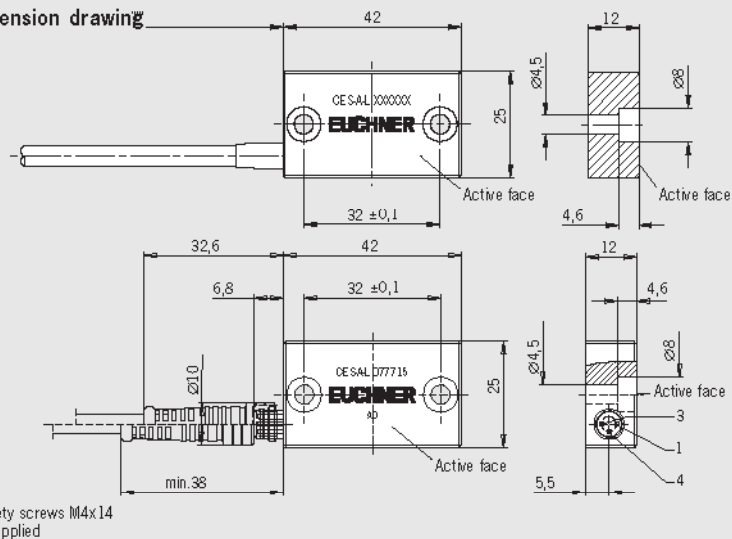
### ▶ Read head CES-A-LNA...



The read heads CES are suitable for connection directly to the evaluation units CES-A-F1B... or CES-A-V1B....

### Read head CES-A-LNA...

#### Dimension drawing



#### Ordering table

Version	Connection	Length	Order No./item
Read head CES-A-LNA	Connection cable PVC	1 m	<b>094 031</b> CES-A-LNA-01V-AS1
		2 m	<b>094 032</b> CES-A-LNA-02V-AS1
	Plug connector M8	-	<b>077 715</b> CES-A-LNA-SC

## Accessories for CES...AS1 evaluation units

Connecting cables with M8 and M12 plug connectors are available for connection of the CES-LNA... read head and the CEM and CET read heads.

### Ordering table

Version	Cable	Length	Order No./item
Cable for read heads CES, CEM, CET with M8 plug connector	PUR	2 m	<b>095 005</b> LIYC11Y2X0.25X2000M12M-M8F
		5 m	<b>095 357</b> LIYC11Y2X0.25X5000M12M-M8F
		10 m	<b>099 167</b> LIYC11Y2X0.25X10000M12M-M8F
		30 m	<b>099 168</b> LIYC11Y2X0.25X30000M12M-M8F
Cable for controlling CEM or CET guard locking	PUR	2 m	<b>100 817</b> C-M08F04-04X025PV02.0-M12M05
		5 m	<b>100 818</b> C-M08F04-04X025PV05.0-M12M05

## Accessories and software for monitors SFM, SMO, GMO and GMOx

The software is required for programming the EUCHNER safety monitors. All safety monitors can be programmed with the same software. A Windows ®-equipped PC is required. All Safety at Work manuals in various languages are included on the CD.

A cable set SFM or the cable SMO-GMO is required to connect the PC. The cable set SFM includes a transfer cable for direct read-out from monitor to monitor.

Additional memory cards can be ordered for the monitors SMO and the gateway monitors GMO.

Plug-in connections with screw terminals and cage pull spring are available.

### Ordering table

Version	Suitability	Order No./item
AsiMon Configuration software	Foll all AS interfaces Safety at Work safety monitors	<b>088 053</b> AsiMon SW
Cable set SFM	For all monitors SFM...	<b>087 299</b> Cable set SFM
Connection set Cage-pull clamps SMO, GMO and GMOx	For monitors SMO and Gateway monitors GMO	<b>100 256</b> ZMO-ZB-KK8-M
Cable SMO and GMO	For monitors SMO and Gateway monitors GMO	<b>100 437</b> ZMO-ZB-PGK
1 memory card	For monitors SMO and Gateway monitors GMO	<b>100 875</b> ZMO-ZB-M1
10 memory cards	For monitors SMO and Gateway monitors GMO	<b>100 438</b> ZMO-ZB-M10
1 memory card	For monitors SMOx and Gateway monitors GMOx	<b>103 580</b> ZMO-ZB-MB1

## Bus coupling module BCM



### BCM-A-P1-SEM4-1

Parameter	Value	Unit
Housing material	Reinforced thermoplastic	
Degree of protection according to IEC 529 (mating connector inserted)	IP 67 on single insertion of the cable	
Ambient temperature	-20...+ 70	°C
Installation position	Any	
Weight	approx. 60	g
Voltage max.	36	V DC
Current max.	4	A
AS-Interface to power insulation voltage	200	V
Installation	Screw mounting (2 x M6)	
<b>Connection</b>		
AS-Interface and auxiliary power	Ribbon cable AS-i	
Line 1	AS-Interface bus ribbon cable (AS-Interface +, AS-Interface -)	
Line 2	Power ribbon cable (+24 V, 0 V)	
safety switch	M12 socket	
Degree of protection according to IEC 529 (mating connector inserted)	IP 67 on single insertion of the cable	