

Product Overview








Automation



EUCHNER

More than safety.

Automation at a glance








		Ident Systems						
		CIS3		CIS3A		CIS3A - Mini		
								
		Read system	Read/write system	Read system	Read/write system	Read system	Read/write system	
General	Housing material	Head	CuZn, nickel-plated	plastic	CuZn, nickel-plated	plastic	CuZn, nickel-plated	CuZn, nickel-plated
		Evaluation unit	–	–	–	–	plastic	plastic
	Housing dimensions	Head	M30x80 mm	40x40x149 mm	M30x80 mm	40x40x149 mm	M12x39 mm	M12x39 mm
		Evaluation unit	–	–	–	–	114x99x22,5 mm	114x99x22,5 mm
	Ambient temperature		0 to +50 °C	0 to +55 °C	0 to +50 °C	0 to +55 °C	0 to +50 °C	0 to +55 °C
	Type of installation	Head	non-flush	non-flush	non-flush	non-flush	non-flush	non-flush
	Evaluation unit	–	–	–	–	DIN rail mounting	DIN rail mounting	
Degree of protection, max. acc. to IEC 60529	Head	IP67	IP65	IP67	IP65	IP65	IP65	
	Evaluation unit	–	–	–	–	IP20	IP20	
Connection	Operating voltage U_B		24 V	24 V	24 V	24 V	24 V	24 V
	Current consumption (without load current) I_B		100 mA	120 mA	100 mA	120 mA	100 mA	100 mA
	Output voltage	A, B, C, D, strobe = 1 min. A, B, C, D, strobe = 0 max.	$U_B - 3 V$ 2 V	–	$U_B - 3 V$ 2 V	–	$U_B - 3 V$ 2 V	–
	Input voltage	Skip = 1 min. Skip = 0 max.	15 V 2 V	–	15 V 2 V	–	15 V 2 V	–
Data transfer	Interface		4-Bit parallel	seriell RS 232/V.24	4-Bit parallel	seriell RS 232/V.24	4-Bit parallel	seriell RS 232/V.24 RS 422
	Transfer protocol		–	3964R	–	3964R	–	3964R
	Data transfer rate		–	9.6 kBaud	–	9.6 kBaud	–	9.6 kBaud 28.8 kBaud
Data carrier	Design							
	Housing dimensions		Ø16 x 8 mm	35 x 16 x 8 mm	50 x 50 x 20 mm		Ø10 x 4 mm	
	Approach		direction-dependent		direction-independent		direction-independent	
	Type of installation		cube-shaped: screws, non-flush with metal Cylindrical: bonding, flush in metal		screws, non-flush with metal		bonding, flush in metal	
	Read distance, max.		18 mm		28 mm		5 mm	
	Relative speed		410 mm/s	static	230 mm/s	static	static	
	Data carrier/read station							
	Storage capacity		16 Bytes		16 Bytes		4 Bytes	116 Bytes
	Ambient temperature		-40 to +85 °C		-20 to +85 °C		-25 to +70 °C	
Degree of protection		IP67		IP67		IP67		
Number of write cycles, min.		100.000		100.000		100.000		
Number of read cycles		not limited		not limited		not limited		

Inductive ident systems are used for the non-contact identification of products such as workpiece carriers or tools. The robust data carriers without batteries are, for example, programmed with a sequential number. Data carriers can be purchased programmed or you can program them yourself using a head with serial interface, or a portable hand-held terminal. The information is transferred via read-only heads directly to the inputs/outputs on a control system using a parallel data interface. Integration is therefore straightforward and low-cost.

● available ○ available on request – not available

All given data refer to the respective minimum or maximum values for the entire series.

Automation at a glance

	Position Switches	Precision Single Limit Switches				
	 NG	 N01	 SN01	 N1A	 N11	
Approvals						
Special features/ specific advantages	<ul style="list-style-type: none"> • Acc. to EN 50041 • down to -40°C (on request) 	<ul style="list-style-type: none"> • down to -40°C (on request) 		<ul style="list-style-type: none"> • Acc. to DIN 43693 • down to -40°C (on request) 		
Switching element	Contact elements, max.	4	1	2	2	2
	Switching current, max.	10A	4A	4A	6A	10A
	Switching current min. (at 24V)	1mA	10mA	10mA	5mA	20mA
	Switching voltage, max.	230V	230V	230V	230V	230V
	Mechanical life, max.	30x10 ⁶	1x10 ⁷	1x10 ⁷	30x10 ⁶	30x10 ⁶
	Operating point accuracy max.	± 0.002	± 0.02	± 0.02	± 0.002	± 0.002
Environment	Housing material	die-cast aluminum, anodized	die-cast aluminum, anodized	die-cast aluminum, anodized	die-cast aluminum, anodized	die-cast aluminum, anodized
	Housing dimensions, min. (HxWxD)	100x40x42mm	40x40x20mm	45x50x22mm	60x76x28mm	62x65x30mm
	Plunger spacing	-	-	-	-	-
	Number of plungers	1	1	1	1	1
	Ambient temperature	-25 to +80°C	-5 to +125°C	-5 to +80°C	-25 to +80°C	-5 to +80°C
	Degree of protection, max., acc. to IEC 60529	IP67	IP67	IP67	IP67	IP67
	LED indicator	●	-	-	●	-
	Approach/actuating direction					
	Approach speed, max.	300m/min	50m/min	50m/min	80m/min	80m/min
	Connection	Cable entry	M20x1.5	M12x1.5	M16x1.5	2 x M16x1.5
Connection cable (pre-assembled)		-	2 or 5m	2 or 5m	-	-
Plug connector		M12, 4-pin + PE SR6 DIN 43651	M12, 4-pin + PE	M12, 4-pin + PE	M12, 4-pin + PE	-
Accessories	Plunger types with bearing, for high approach speed, on request					

● available ○ available on request - not available

All given data refer to the respective minimum or maximum values for the entire series.

Single Hole Fixing Limit Switches



EGM8



EGM12



EGT12
EGT1/4



EGT1M12



EGT1



EGT2



EGT4



- high precision
- small design

- down to -30 °C (on request)

- up to +120 °C (on request)
- for underwater use

1

1

1

1

1

2

4

0.6 A

0.6 A

0.3 A

0.6 A

0.6 A

2 A

2 A

10 mA

10 mA

1 mA

10 mA

10 mA

10 mA

10 mA

230 V

230 V

230 V

230 V

230 V

230 V

230 V

1 x 10⁶

1 x 10⁶

30 x 10⁶

1 x 10⁶

1 x 10⁶

3 x 10⁶

5 x 10⁵

± 0,01

± 0,01

± 0,01

± 0,01

± 0,01

± 0,01

± 0,01

stainless steel

stainless steel

stainless steel

brass, nickel-plated

brass, nickel-plated

steel/brass

Brass,
nickel-plated

43 x Ø 8 mm

40 x Ø 12 mm

61 x Ø 12 mm

74 x Ø 12 mm

65 x Ø 12 mm

88 x Ø 18 mm

115 x Ø 24 mm

-

-

-

-

-

-

-

1

1

1

1

1

1

1

-25 to +80 °C

-25 to +85 °C

-25 to +80 °C

-25 to +80 °C

-25 to +80 °C

-5 to +60 °C

-25 to +70 °C

IP65

IP65

IP68

IP67

IP67

IP67

IP67

-

-

-

-

-

-

-



8 m/min

8 m/min

8 m/min

8 m/min

8 m/min

10 m/min

10 m/min

-

-

-

-

-

-

-

11 m

5 m

5 m

5 m

5 m

5 m

5 m

-

M12, 4-pin

M12, 4-pin + PE

M12, 4-pin

M12, 4-pin

M12, 4-pin + PE

-



(with longer plunger and
PU scraper on request)

(with longer plunger
and PU scraper
on request)



Precision Multiple Limit Switches



RGBF



SN/SB



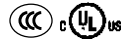
GSBF



RGBF...AM



SN...AM



• Acc. to DIN 43697

- upright housing
- small flange
- down to -40 °C (on request)
- down to +120 °C (on request)

• upright housing

• Acc. to DIN 43697 with exterior diaphragm

• with exterior diaphragm

2 per plunger unit

2 per plunger unit

2 per plunger unit

2 per plunger unit

2 per plunger unit

10A

10A

10A

10A

10A

10mA

10mA

10mA

10mA

10mA

230V

230V

230V

230V

230V

30x10⁶

30x10⁶

30x10⁶

30x10⁶

30x10⁶

± 0.002

± 0.002

± 0.002

± 0.002

± 0.002

die-cast aluminum, anodized

die-cast aluminum, anodized

die-cast aluminum, anodized

die-cast aluminum, anodized

die-cast aluminum, anodized

depending on the number of plungers

depending on the number of plungers

depending on the number of plungers

depending on the number of plungers

depending on the number of plungers

12/16

8/12/16

8/12/16

12

12

2 to 16

2 to 6

2 to 10

2 to 8

2 to 6

-5 to +80 °C

-5 to +80 °C

-5 to +80 °C

-5 to +80 °C

-5 to +80 °C

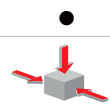
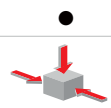
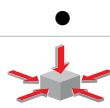
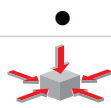
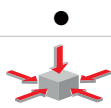
IP67

IP67

IP67

IP67

IP67



120 m/min

120 m/min

120 m/min

50 m/min

50 m/min

M25x1.5

M20x1.5

M25x1.5

M25x1.5

M25x1.5

-

-

-

-

-

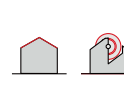
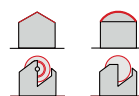
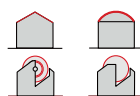
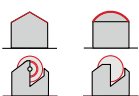
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Automation at a glance

Inductive					
Precision Single Limit Switches		Precision Multiple Limit Switches			
					
ENA		ESN		SN	
Approvals					
Special features/ specific advantages	• Acc. to DIN 43693	• small design	• Acc. to DIN 43697	• upright housing • small flange	
Switching element	Assured operating distance	0 to 4 mm	0 to 4 mm	0 to 4 mm	0 to 4 mm
	Switching function	NO + NC	NO + NC	NO + NC	NO + NC
	Output	PNP	PNP	PNP	PNP
	Operating voltage DC/AC	10 to 55V	10 to 55V	10 to 55V	10 to 55V
	Rated operating current	250 mA	250 mA	250 mA	250 mA
Environment	Housing material	die-cast aluminum, anodized	die-cast aluminum, anodized	die-cast aluminum, anodized	die-cast aluminum, anodized
	Housing dimensions, min. (HxWxD)	74x76x28 mm	50x45x22 mm	depending on the number of proximity switches	depending on the number of proximity switches
	Proximity switch spacing	–	–	12/16	12/16
	Number of proximity switches	1	1	2 to 16	2 to 6
	Ambient temperature	-25 to +70 °C	-25 to +70 °C	-25 to +70 °C	-25 to +70 °C
	Degree of protection, max. acc. to IEC 60529	IP67	IP67	IP67	IP67
	LED indicator	●	●	integrated as standard	integrated as standard
Approach/actuating direction					
Connection	Cable entry	M16x1.5	–	M25x1.5	M20x1.5
	Connection cable (pre-assembled)	–	5 m	–	–
	Plug connectors	–	M12, 4-pin	–	–

● available ○ available on request – not available

All given data refer to the respective minimum or maximum values for the entire series.

Automation at a glance

Plug Connectors



Round design, metal encapsulated



Design acc. to DIN43651, plastic encapsulated



Design acc. to DIN43651, with cable



Round design, metal encapsulated, with cable



M8/M12

Version	●	●	–	–	●
Male socket	●	●	–	–	●
Male plug	●	–	–	–	●
Female socket	●	●	●	●	●
Female plug	●	–	–	–	●
Coupling socket	●	–	–	–	●
Elbow connector (female)	–	●	●	●	●
Connection					
Number of pins	4 to 19	6 + PE/11 + PE	6 + PE/11 + PE	18 + PE	3 to 8
Thread	PG9 to PG21/ M16 to M25	PG11/PG13.5/ PG16/M20x1.5	PG11/PG13.5/ PG16/M20x1.5	M20x1.5	M8/M8
Earth conductor	●	●	●	●	●
Contact material	CuZn, nickel-plated, 1 µm hard gold-plated	CuZn, silver-plated	CuZn, silver-plated	CuZn, alloy	CuZn, nickel-plated, 0.8 µm hard gold-plated
Connection	Soldered connection	Crimp connection	Crimp connection	Crimp connection	overmolded
Conductor cross-section, max.	1 mm ²	1.5 mm ²	1.5 mm ²	1 mm ²	0.34 mm ² /0.5 mm ²
General					
Housing material	CuZn, matt chromium-plated	PET (polyethylene terephthalate)	PET (polyethylene terephthalate)	CuZn, nickel-plated	CuZn, nickel-plated/ PUR, PVC
Degree of protection to IEC 529/EN60529	IP67	IP65	IP65	IP67	IP67
Ambient temperature	-20 to +80 °C	-40 to +90 °C	-40 to +90 °C	-40 to +125 °C	-40 to +90 °C
Contact resistance	≤ 5 mΩ	≤ 5 mΩ	≤ 5 mΩ	≤ 3 mΩ	≤ 5 mΩ
Rated impulse withstand voltage U _{imp}	4 kV	4 kV	4 kV	1.5 kV	1.5 kV
Rated voltage with PE	250 V	250 V	250 V	150 V	10 – 230 V
Rated voltage without PE	50 V	50 V	50 V	–	10 – 30 V
Rated current	6 A	10 A	10 A	8 A	1 – 4 A

EMC-compliant assembly

The more demanding and complex electronic devices become, the higher the requirements in relation to electromagnetic compatibility (EMC). Only devices that are free of electromagnetic interference will provide trouble-free operation. The connectors on the device input and output can be a key element for an optimal EMC solution. Screened connectors that reduce radiated effects and remove conducted interference are the ideal solution. Round connectors with symmetrical pin patterns and full metal housings are very suitable for this application. The screen function can be optimally realized with these connectors.

● available ○ available on request – not available

All given data refer to the respective minimum or maximum values for the entire series.

Trip Rails



Series UFA



Series UF



Series ULA

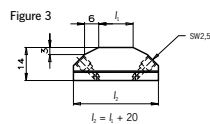
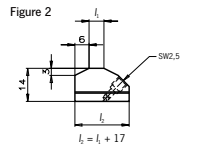
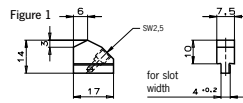


Series UL

Housing material	Aluminium	Cast iron	Aluminium		Aluminium
Slot spacing	8 mm	8 mm	12 mm	16 mm	12 mm
Dimension at number of slots (Width in mm)	2 slots: 44 mm 3 slots: 52 mm 4 slots: 60 mm 5 slots: 68 mm 6 slots: 76 mm	2 slots: 44 mm 3 slots: 52 mm 4 slots: 60 mm 5 slots: 68 mm 6 slots: 76 mm 8 slots: 92 mm	2 slots: 29 mm 3 slots: 41 mm 4 slots: 53 mm 5 slots: 65 mm 6 slots: 77 mm	2 slots: 33 mm 3 slots: 49 mm 4 slots: 65 mm 6 slots: 97 mm	2 slots: 24 mm 3 slots: 36 mm 4 slots: 48 mm
Number of slots max.	6	8	6		4
Length max.	2010 mm	1000 mm	2010 mm		4000 mm

Trip Dogs

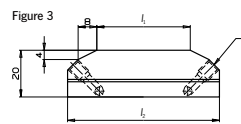
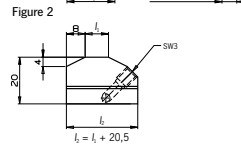
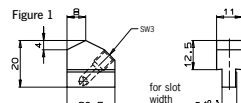
For slot spacing UF8/UFA8



l_1	Figure
0	1
4	2
6,3	2
10	3
16	3
20	3
25	3
40	3
63	3
100	3

Series U8

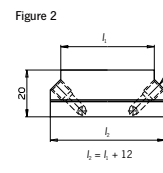
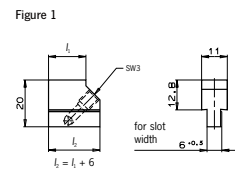
For slot spacing ULA/UL/UF



l_1	Figure	DIN/form
0	1	UA
4	2	UA
6,3	2	-
10	2	UA
16	3	UB
25	3	UB
40	3	UB
63	3	UB
100	3	UB
125	3	-

Series U1216

For slot spacing ULA/UL/UF



l_1	Figure
10	1
16	1
25	2
40	2
63	2
100	2
125	2

Series UX1216

Housing material	Hardened, ground steel	Hardened, ground steel		Black painted steel	
Slot spacing	8 mm	12 mm	16 mm	12 mm	16 mm