

Product Overview

Automation



EUCHNER

More than safety.

Automation at a glance

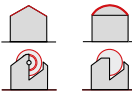
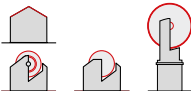
Ident Systems					
CIS3		CIS3A		CIS3A - Mini	
					
Read system	Read/write system	Read system	Read/write system	Read system	Read/write system
ERC	ERC	ERC	ERC	ERC	ERC
CuZn, nickel-plated	plastic	CuZn, nickel-plated	plastic	CuZn, nickel-plated	CuZn, nickel-plated
–	–	–	–	plastic	plastic
M30x80 mm	40x40x149 mm	M30x80 mm	40x40x149 mm	M12x39 mm	M12x39 mm
–	–	–	–	114 x99x22.5 mm	114x99x22.5 mm
0 to +50 °C	0 to +55 °C	0 to +50 °C	0 to +55 °C	0 to +50 °C	0 to +55 °C
non-flush	non-flush	non-flush	non-flush	non-flush	non-flush
–	–	–	–	DIN rail mounting	DIN rail mounting
IP67	IP65	IP67	IP65	IP65	IP65
–	–	–	–	IP20	IP20
24 V	24 V	24 V	24 V	24 V	24 V
100 mA	120 mA	100 mA	120 mA	100 mA	100 mA
U _B - 3 V 2 V	– –	U _B - 3 V 2 V	– –	U _B - 3 V 2 V	– –
15 V 2 V	– –	15 V 2 V	– –	15 V 2 V	– –
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
–	3964R	–	3964R	–	3964R
–	9.6 kBaud	–	9.6 kBaud	–	9.6 kBaud 28.8 kBaud
 Ø 16 x 8 mm	 35 x 16 x 8 mm	 50 x 50 x 20 mm		 Ø 10 x 4 mm	
direction-dependent		direction-independent		direction-independent	
cube-shaped: screws, non-flush with metal Cylindrical: bonding, flush in metal		screws, non-flush with metal		bonding, flush in metal	
18 mm		28 mm		5 mm	
410 mm/s	static	230 mm/s	static	static	
16 Bytes		16 Bytes		4 Bytes	116 Bytes
-40 to +85 °C		-20 to +85 °C		-25 to +70 °C	
IP67		IP67		IP67	
100.000		100.000		100.000	
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.

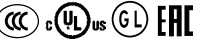
Automation at a glance

		Position Switches	Precision Single Limit Switches			
						
		NG	N01	SN01	N1A	N11
Approvals						
Special features/ specific advantages		• Acc. to EN 50041 • down to -40 °C (on request)	• down to -40 °C (on request)		• Acc. to DIN 43693 • down to -40 °C (on request)	
Switching element	Contact elements, max.	4	1	2	2	2
	Switching current, max.	10 A	4 A	4 A	6 A	10 A
	Switching current min. (at 24 V)	1 mA	10 mA	10 mA	5 mA	20 mA
	Switching voltage, max.	230 V	230 V	230 V	230 V	230 V
	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)	100x40x42 mm	40x40x20 mm	45x50x22 mm	60x76x28 mm	62x65x30 mm
	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.	300 m/min	50 m/min	50 m/min	80 m/min	80 m/min
Connection	Cable entry	M20x1.5	M12x1.5	M16x1.5	2 x M16x1.5	3 x M20x1.5
	Connection cable (pre-assembled)	–	2 or 5 m	2 or 5 m	–	–
	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

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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 10 ⁶	1 x 10 ⁶	30 x 10 ⁶	1 x 10 ⁶	1 x 10 ⁶	3 x 10 ⁶	5 x 10 ⁵
± 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

10A

10mA

230V

30x10⁶

± 0.002

2 per plunger unit

10A

10mA

230V

30x10⁶

± 0.002

2 per plunger unit

10A

10mA

230V

30x10⁶

± 0.002

2 per plunger unit

10A

10mA

230V

30x10⁶

± 0.002

2 per plunger unit

10A

10mA

230V

30x10⁶

± 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

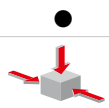
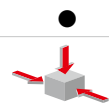
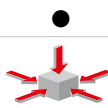
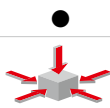
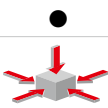
IP67

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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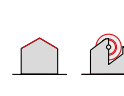
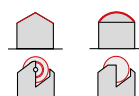
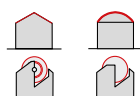
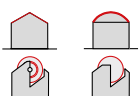
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Automation at a glance

Automation
at a glance

Inductive						
Precision Single Limit Switches			Precision Multiple Limit Switches			
						
ENA			ESN			
RGBF			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		
	Switching function	NO + NC		NO + NC		
	Output	PNP		PNP		
	Operating voltage DC/AC	10 to 55 V		10 to 55 V		
	Rated operating current	250 mA		250 mA		
Environment	Housing material	die-cast aluminum, anodized		die-cast aluminum, anodized		
	Housing dimensions, min. (HxWxD)	74x76x28 mm		50x45x22 mm		
	Proximity switch spacing	–		12/16		
	Number of proximity switches	1		2 to 16		
	Ambient temperature	-25 to +70 °C		-25 to +70 °C		
	Degree of protection, max. acc. to IEC 60529	IP67		IP67		
	LED indicator			integrated as standard		
Approach/actuating direction						
Connection	Cable entry	M16x1.5		M25x1.5		
	Connection cable (pre-assembled)	–		–		
	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 mm²	1.5 mm²	1.5 mm²	1 mm²	0.34 mm²/0.5 mm²
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

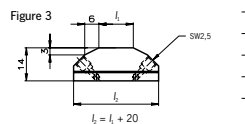
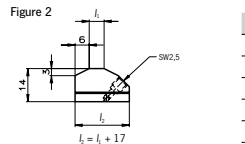
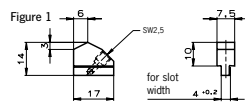


Series UL

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

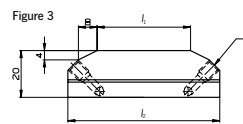
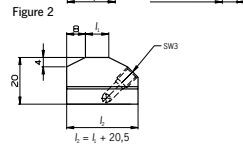
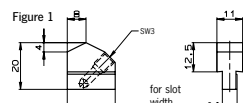
For slot spacing UF8/UFA8



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

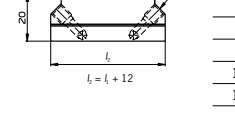
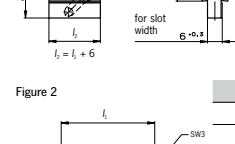
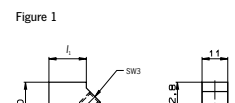
For slot spacing ULA/UL/UF



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	16 mm