EN

Product Overview

Automation

EUCHNER

More than safety.

Automation at a glance

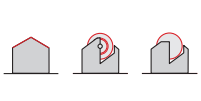
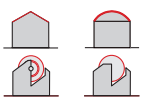
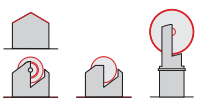
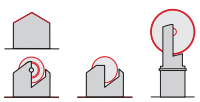
			Ident Systems					
			CIS3		CIS3A		CIS3A-Mini	
			 Read system	 Read/write system	 Read system	 Read/write system	 Read system	Read/write system
General	Approval		EAC	EAC	EAC	EAC	EAC	EAC
	Housing material	Head	CuZn, nickel-plated	plastic	CuZn, nickel-plated	plastic	CuZn, nickel-plated	CuZn, nickel-plated
		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.	U_B - 3 V	–	U_B - 3 V	–	U_B - 3 V	–
		A, B, C, D, strobe = 0 max.	2 V	–	2 V	–	2 V	–
	Input voltage	Skip = 1 min.	15 V	–	15 V	–	15 V	–
		Skip = 0 max.	2 V	–	2 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 Data carrier/read station		410 mm/s	static	230 mm/s	static	static	
	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	cULus GL EAC	cULus GL EAC	cULus GL EAC	cULus GL EAC	EAC
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.	30×10^6	1×10^7	1×10^7	30×10^6	30×10^6
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. (H x W x D)	100 x 40 x 42 mm	40 x 40 x 20 mm	45 x 50 x 22 mm	60 x 76 x 28 mm	62 x 65 x 30 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	M20 x 1.5	M12 x 1.5	M16 x 1.5	2 x M16 x 1.5	3 x M20 x 1.5
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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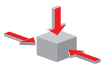
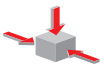
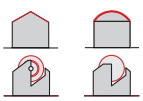
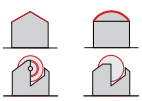
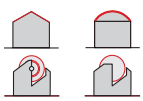
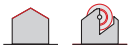
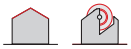
Single Hole Fixing Limit Switches

	EGM8	EGM12	EGT12 EGT1/4	EGT1M12	EGT1	EGT2	EGT4
							
	cULus GL EAC	cULus EAC	cULus GL EAC	cULus EAC	cULus GL EAC	cULus GL EAC	cULus GL EAC
	• 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
	1×10^6	1×10^6	30×10^6	1×10^6	1×10^6	3×10^6	5×10^5
	± 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	2 per plunger unit	2 per plunger unit	2 per plunger unit	2 per plunger unit
10 A	10 A	10 A	10 A	10 A
10 mA	10 mA	10 mA	10 mA	10 mA
230 V	230 V	230 V	230 V	230 V
$30x10^6$	$30x10^6$	$30x10^6$	$30x10^6$	$30x10^6$
± 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
–	–	–	–	–
–	–	–	–	–
				

Automation at a glance

		Inductive	
		Precision Multiple Limit Switches	
		 RGBF	 SN
	Approvals	cULus EAC	cULus EAC
	Special features/ specific advantages	• 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. (H x W x D)	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	2 to 16	2 to 6
	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	integrated as standard
	Approach/actuating direction		
Connection	Cable entry	M25 x 1.5	M20 x 1.5
	Connection cable (pre-assembled)	–	–
	Plug connectors	–	–

● 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 DIN 43651, plastic encapsulated	Design acc. to DIN 43651, 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, 1µm hard gold-plated	CuZn, silver-plated	CuZn, silver-plated	CuZn, alloy	CuZn, nickel-plated, 0.8 µm hard gold-platedt
	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.

Automation at a glance

Trip Rails

Series UFA

Series UF

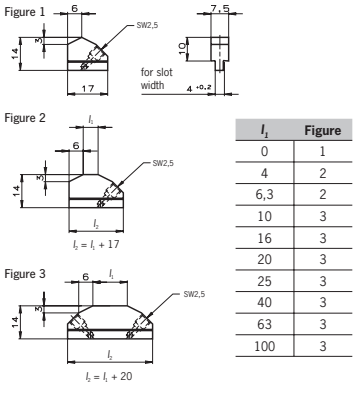
Series ULA

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

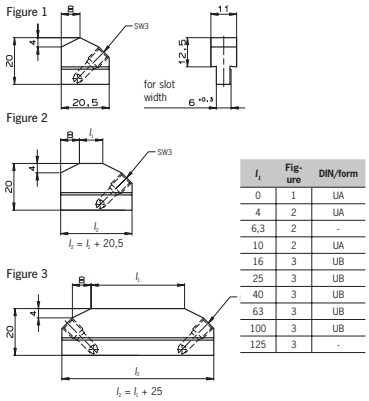
For slot spacing UF8/UFA8



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

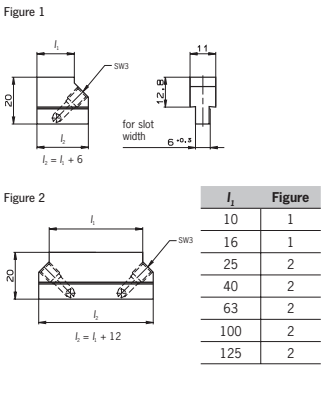
For slot spacing ULA/UL/UF



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

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