elobau GmbH & Co. KG
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eloProg rotational speed modules 485EPS

The speed modules monitor standstill, maximum speed, a defined speed range and the rotation direction. In addition, up to 4 switching thresholds can be configured per axis.

The various modules are compatible with encoders with HTL, TTL or sine/cosine signals.

Technical specifications

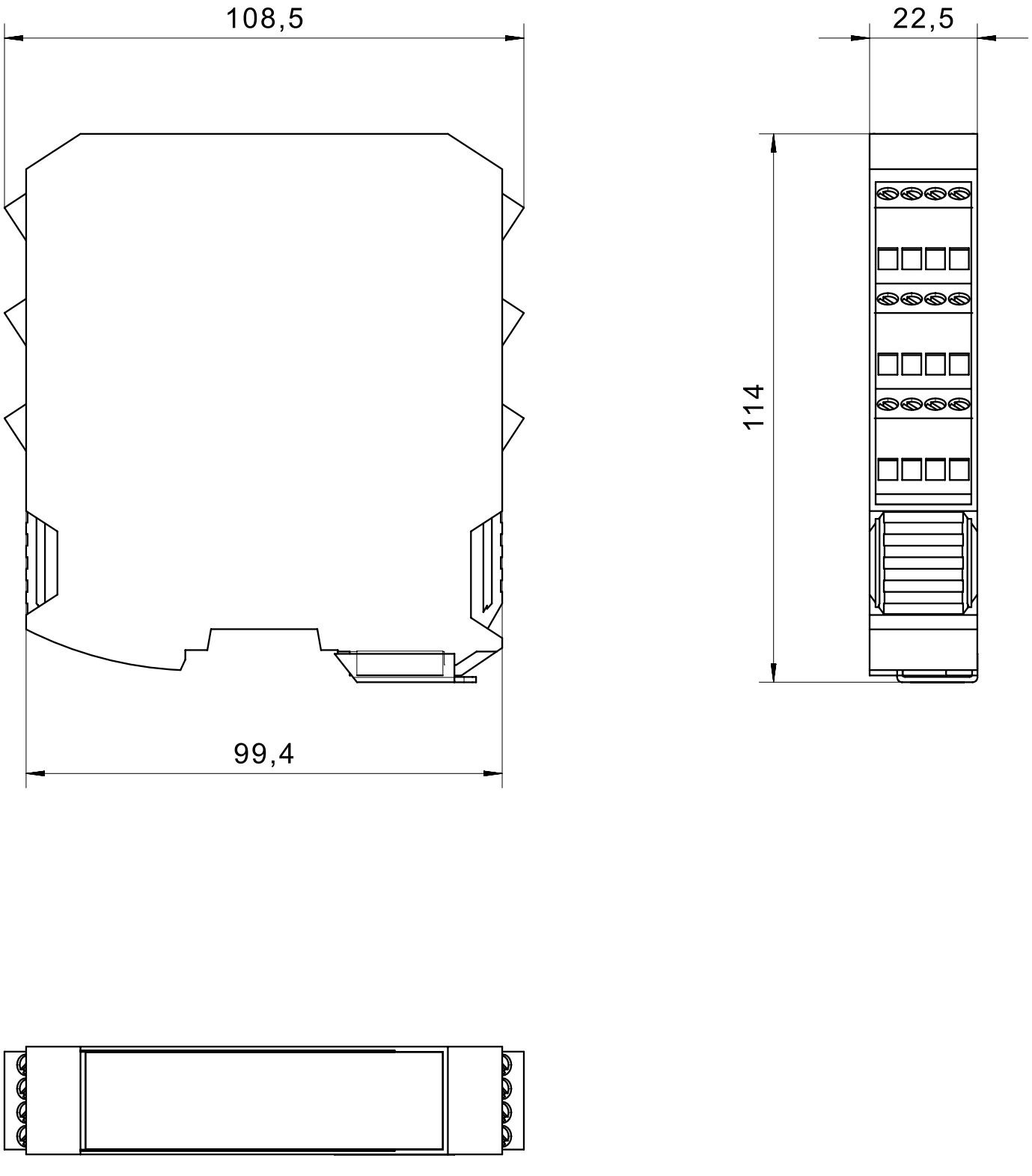
- Various modules for the connection of 1 or 2 HTL, TTL or sine/cosine encoders
- Additional inputs for up to 2 proximity sensors per module
- 4 switching thresholds can be configured per axis
- Rotational speed monitoring up to PLe
- Pre-assembled T-connector (proprietary 5-way bus) for connection to the base module and other expansion modules simplifies wiring and saves space in the switch cabinet

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Technical drawing

IMAGE 1/1



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Product options

IMAGE 1/1

ORDERING KEY

485EP	S		Module for rotational speed monitoring
		2N	Connection of 2 proximity sensors
		1T	Connection of 1 TTL encoder
		2T	Connection of 2 TTL encoders
		1H	Connection of 1 HTL encoder
		2H	Connection of 2 HTL encoders
		1S	Connection of 1 sin/cos encoder
		2S	Connection of 2 sin/cos encoders

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Article characteristics

Attribute	485EPS1H	485EPS1S	485EPS1T	485EPS2H	485EPS2N	485EPS2S
Operating voltage min.	19.2 V DC					
Operating voltage max.	28.8 V DC					
Power consumption	3 W					
LED display	No					
encoder interface	HTL	sin/cos	TTL	HTL	-	sin/cos
Encoder connections	RJ45				-	RJ45
Rated insulation voltage encoder	250 V				-	250 V
Overvoltage category encoder	II				-	II
Nominal pulse voltage encoder	4 kV				-	4 kV
Max. number of encoders	1			2	-	2
Max. frequency of encoder	300 kHz	500 kHz		300 kHz	-	500 kHz
Adjustable threshold range encoder	1 Hz - 450 kHz				-	1 Hz - 450 kHz
Initiators category	PNP/NPN - 3/4 Drähte					
Initiators connections	via connection terminals					
Adjustable threshold range initiators	1 Hz - 4 kHz					
Max. number of initiators	2					
Max. frequency of initiators	5 kHz					
Max. number of axes	2					
Standstill/overspeed gap	> 10 Hz					
Min. gap between thresholds	> 5 %					
PL acc. to EN ISO 13849-1	e					
SIL acc. to IEC 61508	3					
SIL CL acc. to IEC 62061	3					
PFHD according to IEC 61508	8,2 x 10-9 1/h	9,43 x 10-9 1/h	8,58 x 10-9 1/h	8,92 x 10-9 1/h	7,48 x 10-9 1/h	1,14 x 10-9 1/h
Operating life	20 Tm					
Category acc. to EN ISO 13849-1	4					
Dimensions	108 x 22,5 x 114,5 mm (H/B/T)				109 x 22,5 x 114,5 mm (H/B/T)	108 x 22,5 x 114,5 mm (H/B/T)

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Attribute	485EPS1H	485EPS1S	485EPS1T	485EPS2H	485EPS2N	485EPS2S
Housing material	PA					
Housing colour	Gehäuse schwarz Frontplatte gelb					
Protection class, housing	IP20 DIN EN 60529					
Operating temperature min.	-10 °C					
Max. operating temperature	55 °C					
Max. storage temperature	85 °C					
Relative humidity	10...95 %				10...96 %	10...95 %
Mounting type	Mounting rail					
Torque for connection terminals	0.6 N m					
Weight	150 g					
Connection to base module	propriertary 5-way bus (T-connector)					
Screw terminals	yes					
Pluggable connection terminals	yes					
Min. connection cross section	0.5 mm²					
Max. connection cross section	2.5 mm²					
Certified in accordance with	EN ISO 13849-1 IEC 61508 IEC 62061 UL 508 / CSA 22.2					
CE label	yes					

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Attribute	485EPS2T
Operating voltage min.	19.2 V DC
Operating voltage max.	28.8 V DC
Power consumption	3 W
LED display	No
encoder interface	TTL
Encoder connections	RJ45
Rated insulation voltage encoder	250 V
Overvoltage category encoder	II
Nominal pulse voltage encoder	4 kV
Max. number of encoders	2
Max. frequency of encoder	500 kHz
Adjustable threshold range encoder	1 Hz - 450 kHz
Initiators category	PNP/NPN - 3/4 Drähte
Initiators connections	via connection terminals
Adjustable threshold range initiators	1 Hz - 4 kHz
Max. number of initiators	2
Max. frequency of initiators	5 kHz
Max. number of axes	2
Standstill/overspeed gap	> 10 Hz
Min. gap between thresholds	> 5 %
PL acc. to EN ISO 13849-1	e
SIL acc. to IEC 61508	3
SIL CL acc. to IEC 62061	3
PFHD according to IEC 61508	9,68 x 10-9 1/h
Operating life	20 Tm
Category acc. to EN ISO 13849-1	4
Dimensions	108 x 22,5 x 114,5 mm (H/B/T)
Housing material	PA
Housing colour	Gehäuse schwarz Frontplatte gelb
Protection class, housing	IP20 DIN EN 60529

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