



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.

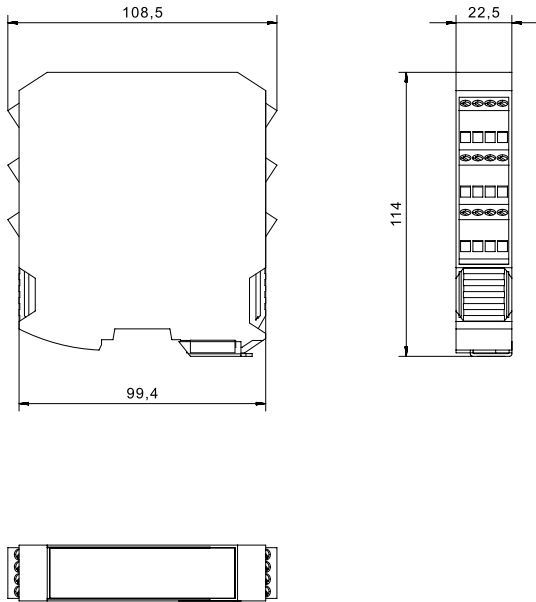
The various modules are compatible with encoders with HTL, TTL or sine/cosine signals.

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

Technical drawing

IMAGE 1/1



Electrical data

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 %					

Electrical data

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 %

Safety-related characteristics

Attribute	485EPS1H	485EPS1S	485EPS1T	485EPS2H	485EPS2N	485EPS2S ▶
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	6,7 x 10 ⁻⁹ 1/h	7,9 x 10 ⁻⁹ 1/h	7,1 x 10 ⁻⁹ 1/h	7,4 x 10 ⁻⁹ 1/h	6 x 10 ⁻⁹ 1/h	9,9 x 10 ⁻⁹ 1/h
Operating life	20 Tm					
Category acc. to EN ISO 13849-1	4					

Safety-related characteristics

Attribute	485EPS2T
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
Operating life	20 Tm
Category acc. to EN ISO 13849-1	4

Mechanical data

Attribute	485EPS1H	485EPS1S	485EPS1T	485EPS2H	485EPS2N	485EPS2S ▶
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)

Mechanical data

Attribute	485EPS2T
Dimensions	108 x 22,5 x 114,5 mm (H/B/T)

Material information

Attribute	485EPS1H	485EPS1S	485EPS1T	485EPS2H	485EPS2N	485EPS2S ▶
Housing material	PA					
Housing colour	Gehäuse schwarz Frontplatte gelb					

Material information

Attribute	485EPS2T
Housing material	PA
Housing colour	Gehäuse schwarz Frontplatte gelb

Environmental conditions

Attribute	485EPS1H	485EPS1S	485EPS1T	485EPS2H	485EPS2N	485EPS2S ▶
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 %

Environmental conditions

Attribute	485EPS2T
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 %

Installation

Attribute	485EPS1H	485EPS1S	485EPS1T	485EPS2H	485EPS2N	485EPS2S ▶
Mounting type	Mounting rail					
Torque for connection terminals	0.6 N m					
Weight	150 g					

Installation

Attribute	485EPS2T
Mounting type	Mounting rail
Torque for connection terminals	0.6 N m
Weight	150 g

Connection

Attribute	485EPS1H	485EPS1S	485EPS1T	485EPS2H	485EPS2N	485EPS2S ▶
Connection to base module	proprietary 5-way bus (T-connector)					
Screw terminals	yes					
Pluggable connection terminals	yes					
Min. connection cross section	0.5 mm ²					
Max. connection cross section	2.5 mm ²					

Connection

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Connection to base module	proprietary 5-way bus (T-connector)
Screw terminals	yes
Pluggable connection terminals	yes
Min. connection cross section	0.5 mm ²
Max. connection cross section	2.5 mm ²

Approvals

Attribute	485EPS1H	485EPS1S	485EPS1T	485EPS2H	485EPS2N	485EPS2S ▶
Certified in accordance with	EN ISO 13849-1 IEC 61508 IEC 62061 UL 508 / CSA 22.2					
CE label	yes					

Approvals

Attribute	485EPS2T
Certified in accordance with	EN ISO 13849-1 IEC 61508 IEC 62061 UL 508 / CSA 22.2
CE label	yes