



MOC3SA-AAB43D31

Speed Monitor

SAFE MOTION MONITORING AND CONTROL

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
MOC3SA-AAB43D31	6034245

Other models and accessories → www.sick.com/Speed_Monitor

Detailed technical data

Safety-related parameters

Safety integrity level	SIL 3 (IEC 61508)
Category	Category 4 (EN ISO 13849)
Performance level	PL e (EN ISO 13849)
PFH_D (mean probability of a dangerous failure per hour)	5.0×10^{-9} (EN ISO 13849)
T_M (mission time)	20 years (EN ISO 13849)
Stop category	0 (EN 60204)

Functions

Drive safety functions	Standstill Safely-limited speed (SLS) Safe speed monitoring (SSM)
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Interfaces

Connection type	Screw-type terminals
Encoder interface	Proxy A/B incremental encoder, HTL 12 V or 24 V

Electrical data - Operating data

Protection class	III (EN 61140)
Voltage type	DC
Supply voltage V_s	24 V (19.2 V ... 30 V)
Residual ripple	(≤ 10 %) ¹⁾
Power consumption	(≤ 3 W)

¹⁾ Within the limits of V_s.

Electrical data - Input circuits S1, S2, I5, I6

Input voltage	
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	HIGH	(13 V ... 30 V)
	LOW	-5 V ... 5 V
Input current	HIGH	2.4 mA ... 3.8 mA
	LOW	-2.5 mA ... 2.1 mA
Switch-on time		≥ 70 ms
Switch-off time		70 ms

Electrical data - Input circuits I1, I2, I3, I4

Input voltage	HIGH	(13 V ... 30 V)
	LOW	-5 V ... 5 V
Input current	HIGH	2.4 mA ... 3.8 mA
	LOW	-2.5 mA ... 2.1 mA
Limit frequency		2 kHz ¹⁾
Frequency change		21 kHz/s

¹⁾ Duty cycle 3:2.

Electrical data - Output circuits X1, X2

Output voltage	18.4 V DC ... 30 V DC
Output current	≤ 120 mA

Electrical data - Output circuits Q1, Q2, Q3, Q4

Output voltage	18.4 V DC ... 30 V DC
Output current	2 A ¹⁾
Total current	4 A ²⁾

¹⁾ 1.6 A at 45 °C < Tu < 55 °C.²⁾ 5 A at 45 °C < Tu < 55 °C.

Mechanical data

Dimensions (W x H x D)	22.5 mm x 96.5 mm x 121 mm
Weight	180 g

Ambient data

Enclosure rating	Terminals	IP20
	Housing	IP40
Ambient operating temperature		-25 °C ... +55 °C
Storage temperature		-25 °C ... +70 °C
Air humidity		≤ 95 %, Non-condensing
Climate conditions according to		EN 61131-2
Electromagnetic compatibility (EMC)		Class A (EN 61000-6-2, EN 55011)
Vibration resistance		10 Hz ... 55 Hz (EN 60068-2-6)
Shock resistance		

Single shock	30 g, 11 ms (EN 60068-2-27)
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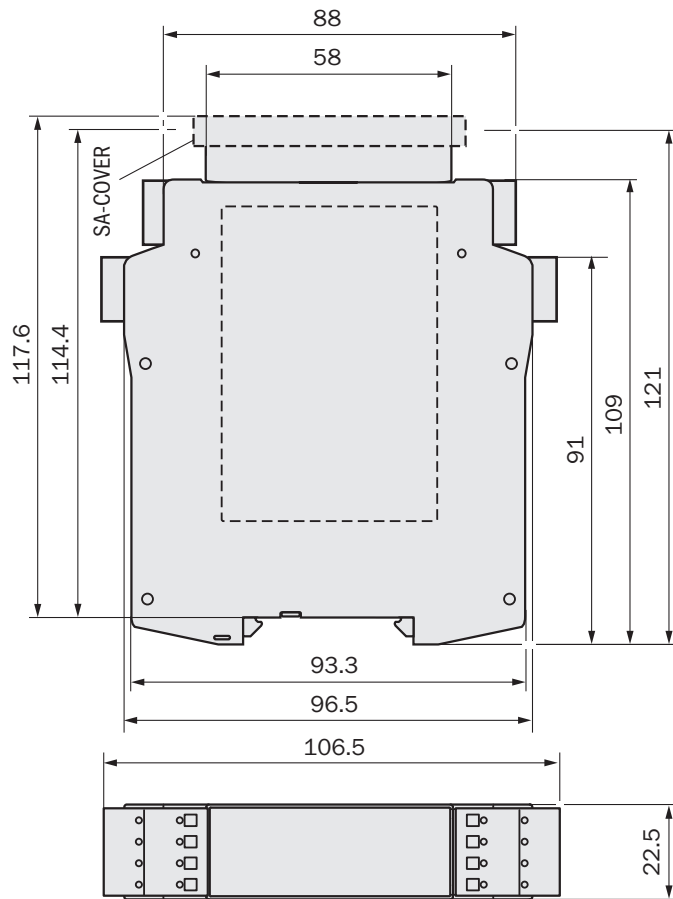
Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓
UK-Type-Examination approval	✓
cULus certificate	✓
cTUVus certificate	✓
EC-Type-Examination approval	✓

Classifications

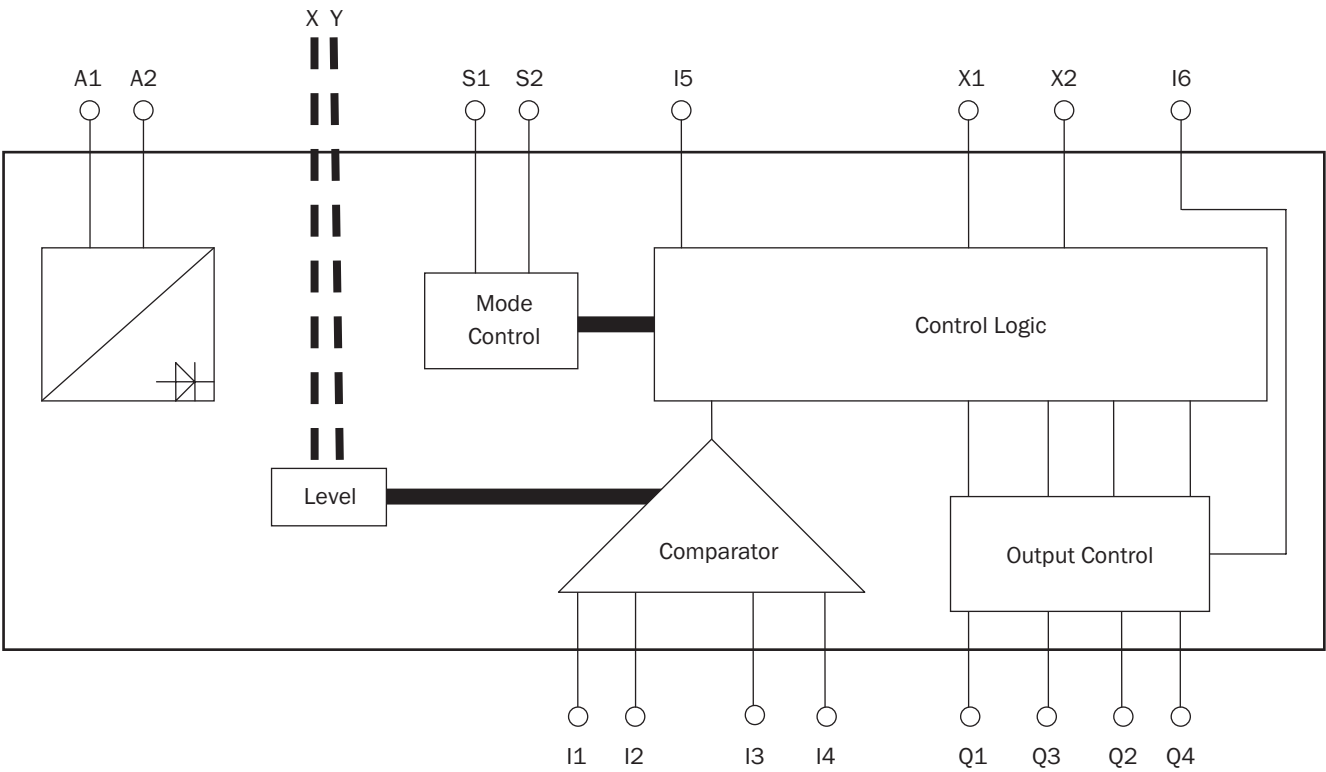
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ECLASS 5.1.4	27371990
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ECLASS 6.2	27371819
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ECLASS 8.1	27371819
ECLASS 9.0	27371819
ECLASS 10.0	27371819
ECLASS 11.0	27371819
ECLASS 12.0	27371819
ETIM 5.0	EC001449
ETIM 6.0	EC001449
ETIM 7.0	EC001449
ETIM 8.0	EC001449
UNSPSC 16.0901	41113704

Dimensional drawing



Dimensions in mm (inch)

Connection diagram



SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com