Online data sheet



MOC3SA-BAB43D31

Speed Monitor

SAFETY RELAYS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	Part no.
MOC3SA-BAB43D31	6034247

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

Detailed technical data

Safety-related parameters

Safety integrity level	SIL3 (IEC 61508) SILCL3 (EN 62061)
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)

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)
Residual ripple	(≤ 10 %) [1]
Power consumption	(≤ 3 W)

[1] Within the limits of V_S.

Input circuits S1, S2, I5, I6

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
Switch-on time	≥ 70 ms
Switch-off time	70 ms

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.

Output circuits X1, X2

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

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

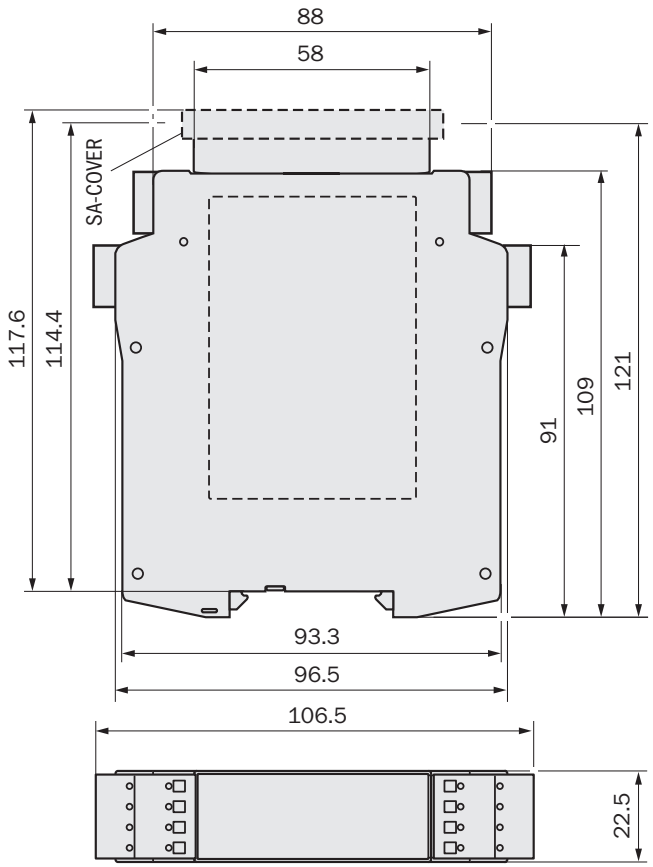
Enclosure rating	
Terminals	IP20 (EN 60529)
Housing	IP40 (EN 60529)
Ambient operating temperature	–25 °C ... +55 °C
Storage temperature	–25 °C ... +70 °C
Air humidity	10 % ... 95 %, Non-condensing
Climate conditions according to	EN 61131-2
Electromagnetic compatibility (EMC)	Class A (EN 61000-6-2, EN 55011)
Vibration resistance	10 Hz ... 55 Hz (EN 60068-2-6)
Shock resistance	
Single shock	30 g, 11 ms (EN 60068-2-27)

Classifications

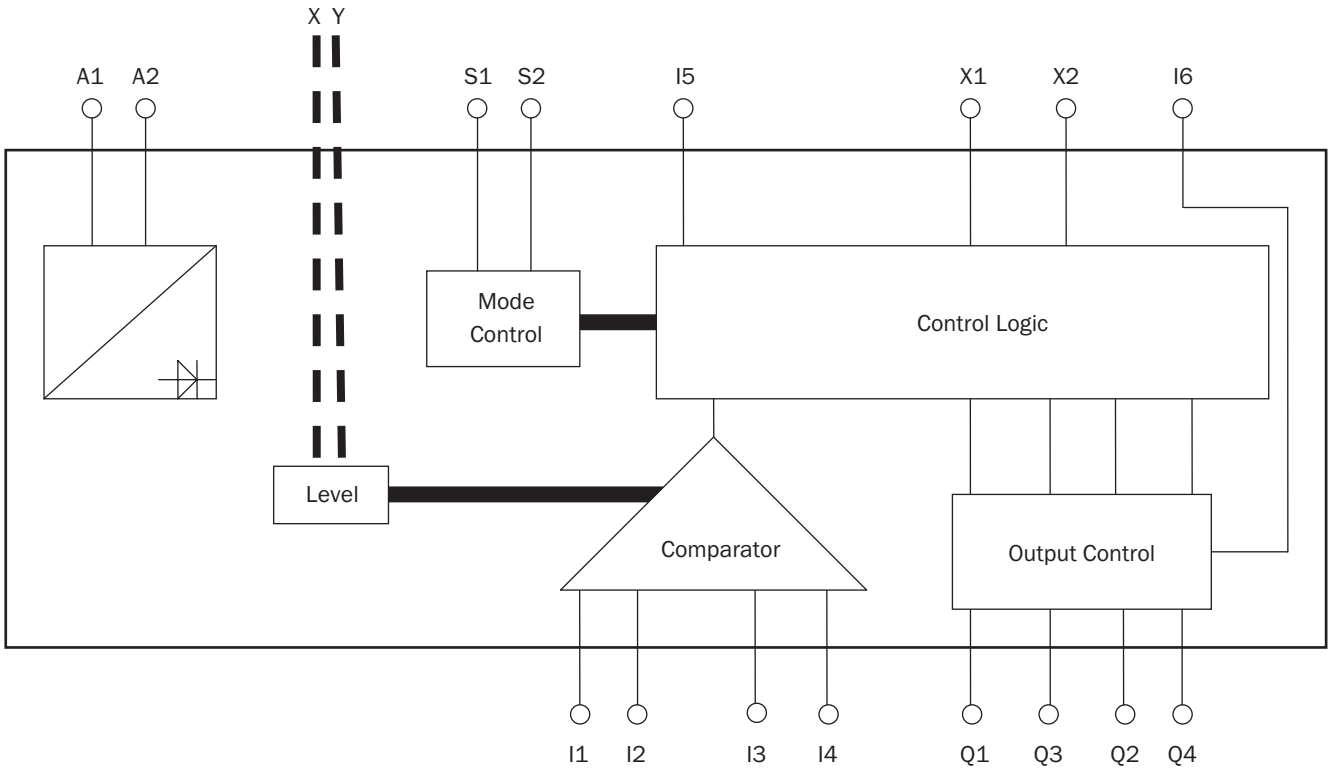
ECl@ss 5.0	27371990

ECl@ss 5.1.4	27371990
ECl@ss 6.0	27371819
ECl@ss 6.2	27371819
ECl@ss 7.0	27371819
ECl@ss 8.0	27371819
ECl@ss 8.1	27371819
ECl@ss 9.0	27371819
ETIM 5.0	EC001449
ETIM 6.0	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