



Safety controllers
Motion Control module, Speed Monitor

MOC3SA-BAB43D31



Model Name > [MOC3SA-BAB43D31](#)
Part No. > [6034247](#)



At a glance

- Zero-speed and drive monitoring
- 4 safe semiconductor outputs
- PL e (EN ISO 13849), SIL3 (IEC 61508), SILCL3 (EN 62061)
- Maximum input frequency of 2 kHz
- Adjustable monitoring limit/monitoring frequency from 0.1 to 9.9 Hz or 0.5 to 99 Hz
- 2 application diagnostic outputs for failure and status display
- Diagnostic LEDs

Your benefits

- Easy commissioning - using only a screwdriver - reduces installation time
- Tool backup using the Flexi Soft Designer and the Flexi Classic Configurator
- Additional HTL encoder evaluation
- Cascading of units is possible



Safety-related parameters

Safety integrity level:	SIL3 (IEC 61508) SILCL3 (EN 62061)
Performance level:	PL e (EN ISO 13849-1)
PFHd:	5.0 * 1E-09 (EN ISO 13849)
TM (mission time):	20 a (EN ISO 13849)
Safe state in the event of a fault:	The safety-related semiconductor outputs are in the OFF state.
Stop category:	0 (EN 60204)

Functions

Standstill:	✓
Safe speed monitoring (SSM):	✓
Safe limited speed (SLS):	✓
Selectable speed limit:	0.5 Hz ... 99 Hz
Type of parameterization:	Screwdriver

Mechanical data

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

Electrical data

Protection class:	III (EN 61140)
Supply voltage:	24 V DC (19.2 V DC ... 30 V DC)
Residual ripple:	$\leq 10\%$ ¹⁾
Power consumption:	$\leq 3\text{ W}$
Input frequency:	$< 2\text{ kHz}$
Input voltage HIGH:	13 V ... 30 V
Input voltage LOW:	-5 V ... 5 V
Type of output application diagnostic output:	PNP semiconductor, short-circuit protected
Output voltage:	18.4 V DC ... 30 V DC

¹⁾ Within the limits of V_S

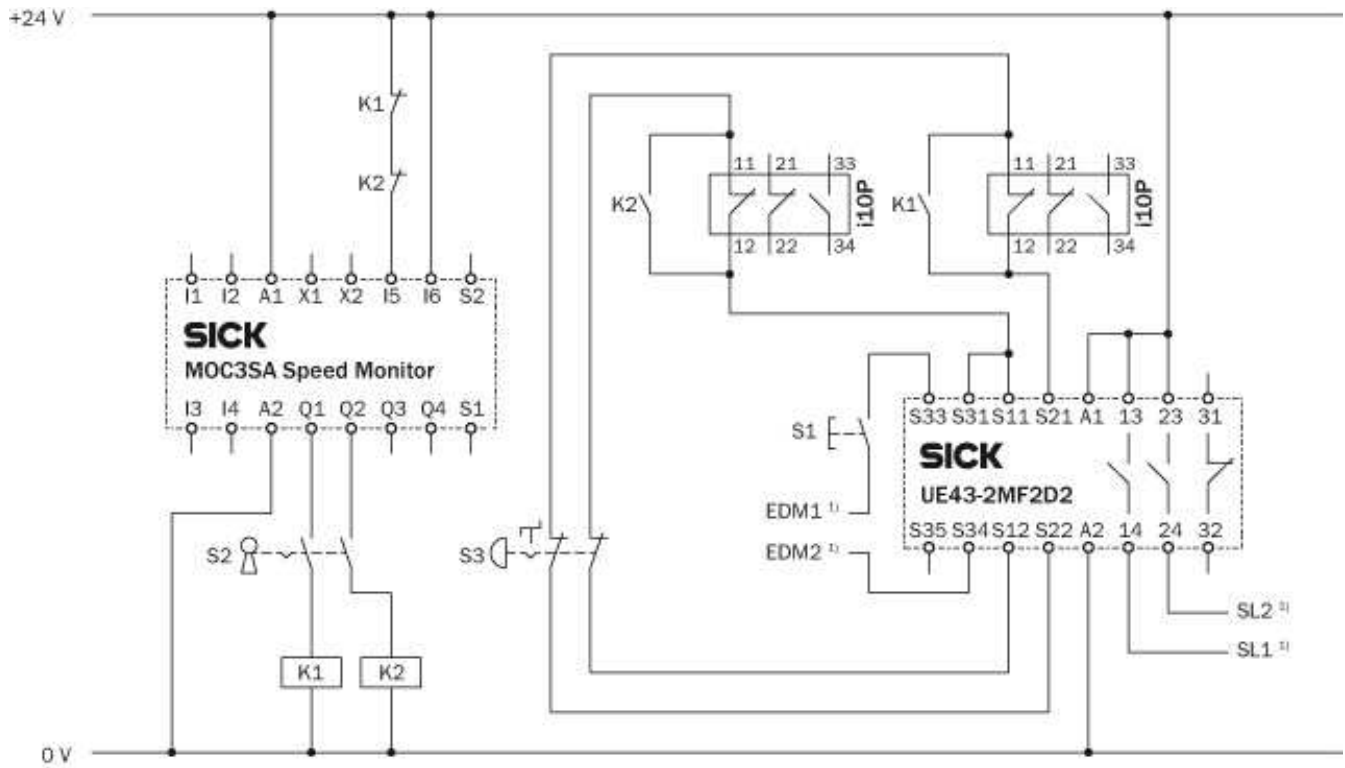
Interfaces

Electrical connection:	Screw-type terminals
Number of safety inputs:	4 (I1 - I4)
Number of safe outputs:	4 (Q1 - Q4)
Number of application diagnostic outputs:	2 (X1, X2)
Encoder interface:	A/B incremental encoder, HTL Proxy

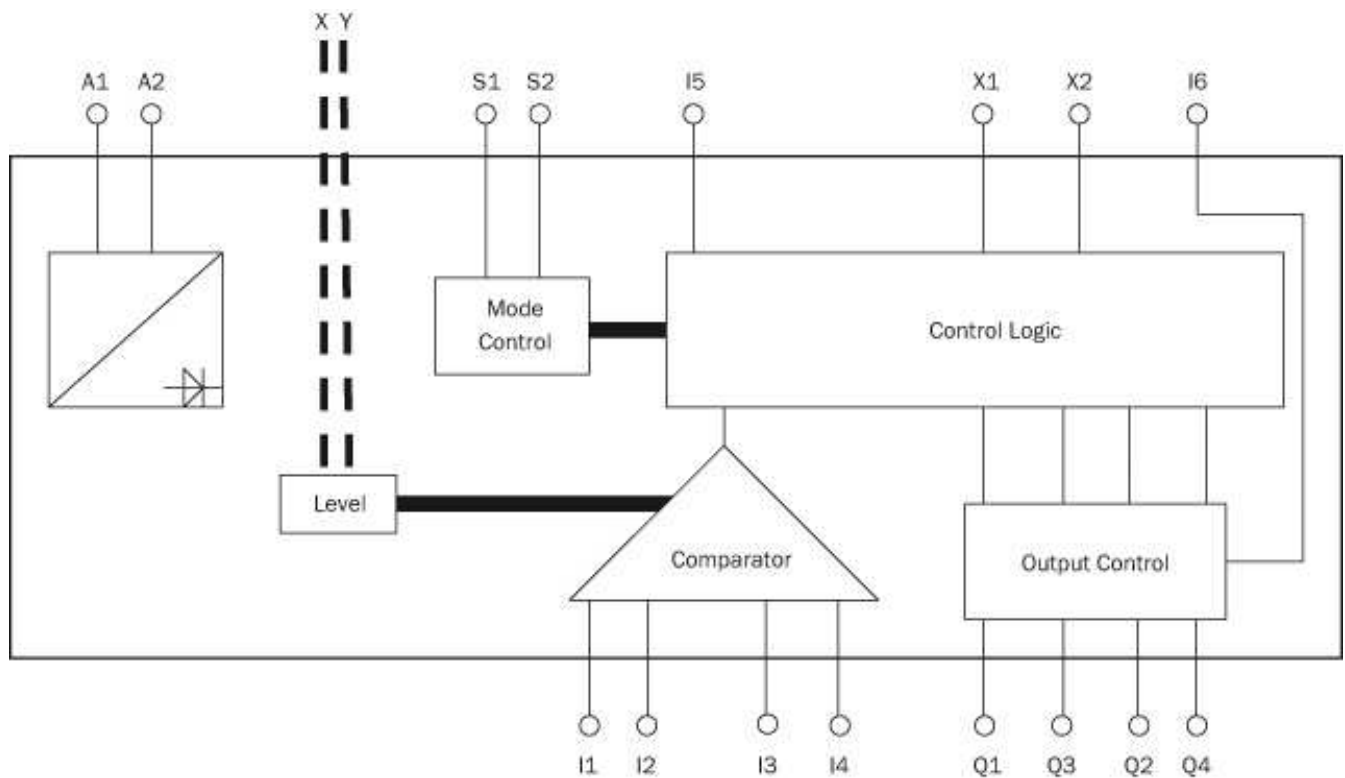
Ambient data

Protection class housing:	IP 40 (EN 60529)
Enclosure rating terminals:	IP 20 (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:	5 g RMS, 5 Hz ... 500 Hz (EN 60068-2-64)

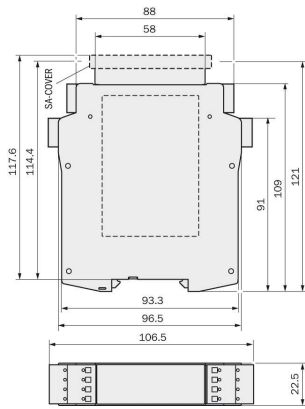
Connection diagram



Connection diagram



Dimensional drawing



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