





MPB10-VS00VSIQ00

Multi Physics Box

CONDITION MONITORING SENSORS

SICKSensor Intelligence.





Туре	part no.
MPB10-VS00VSIQ00	1123926

Other models and accessories -> www.sick.com/Multi_Physics_Box



Detailed technical data

Features

Vibration	
Number of axis	3
Measuring range	±8g
Measurement error	±6%
Measuring range a-RMS	0 g 5.65 g
Measuring range v-RMS	0 mm/s 100 mm/s, At 88 Hz
Frequency range	0.78 Hz 3,200 Hz
Frequency resolution	≥ 0.78 Hz
Bandpass filter	Freely parameterizable in the range 1 3200 Hz
Trigger	Automatic/IO-Link/external
Block length	0.02 s 1.28 s
Signal type	Acceleration/speed
Vibration analysis	a-RMS
	v-RMS
	Variance
	Skewness
	Kurtosis
	Peak to peak
	Shape factor
	Crest factor
	Impulse factor
	Frequency analysis
Vibration monitoring	Evaluation of the severity zone according to ISO 10816-3

	Teach-in of the reference vibration pattern
	Raw data output for parameterization
Contact temperature	
Measuring range	- 40 °C + 80 °C
Accuracy	Typ. ± 1 °C
Resolution	1 °C
Shock	
Number of axis	3
Measuring range	10 g 200 g

Mechanics/electronics

Supply voltage 10 ∨ DC 30 ∨ DC Voltage drop ≤ 1 ∨ Continuous current I₂ ≤ 200 mA Enclosure rating IIP68 Protection class III Power consumption < 350 mW Ambient operating temperature -40 ° C +80 ° C Shock and vibration resistance EN 60068 2.27 shock resistance Ea: 30 g 11 ms; 3 shocks in each direction of the 3 coordinate aws EIC 60068 2.31 drop test: 2 times from 1 m, 100 times from 0.5 m EN 60068-24 wibration resistance Fc: 10 Hz 150 Hz, 1 mm/ 15 g Reverse polarity protection Yes Short-circuit protection Yes EMC According to IO-Link IEC 61131-9 standard Connection type Cable with connector M12, with knurled nuts, 0.3 m Conductor cross section 0.08 mm² Conductor cross section 0.08 mm² Conductor dross section 0.08 mm² Conductor access section 0.08 mm² Material Housing Material Housing Material Housing Dimensions (W x H x D) 10 mm x 28 mm x 28 mm Device status Yes Operating hour		
Continuous current	Supply voltage	10 V DC 30 V DC
Enclosure rating IP68 III Power consumption <350 mW Ambient operating temperature -40 ° C +80 ° C Shock and vibration resistance En 60068-2-27 shock resistance Ea: 30 g 11 ms; 3 shocks in each direction of the 3 coordinate axes EC 60068-2-8 vibration resistance For: 10 Hz 150 Hz, 1 mm / 15 g Reverse polarity protection Yes Short-circuit protection Yes Short-circuit protection Yes Connection type Cable diameter Conductor cross section Some 2 ms 20 ms	Voltage drop	≤ 1 V
Protection class III Power consumption	Continuous current I _a	≤ 200 mA
Power consumption < 350 mW Ambient operating temperature -40 °C +80 °C Shock and vibration resistance EN 60068-2-37 shock resistance Ea: 30 g 11 ms; 3 shocks in each direction of the 3 coordinate axes lEC 60068-2-31 drop test: 2 times from 1 m, 100 times from 0.5 m EN 60068-2-6 vibration resistance Fc: 10 Hz 150 Hz, 1 mm / 15 g Reverse polarity protection Yes EMC According to IO-Link IEC 61131-9 standard Connection type Cable diameter Connection type Detail Ø 2.6 mm Conductor cross section 0.08 mm² Bending radius For flexible use > 10 x cable diameter With fixed installation > 5 x cable diameter With fixed installation > 5 x cable diameter Material Stainless steel Dimensions (W x H x D) 10 mm x 28 mm x 28 mm Diverse status Yes Operating hour counter Yes Operating hour counter with reset function Yes Operating hour counter with reset function Yes Operating hour counter Yes Operating hour counter Yes Operating hour counter with reset function Yes Operating hour counter Yes	Enclosure rating	IP68
Ambient operating temperature Shock and vibration resistance Shock and vibration resistance EN 60068-2-27 shock resistance Ea: 30 g 11 ms; 3 shocks in each direction of the 3 coordinate axes IEC 60068-2-31 drop test: 2 times from 1 m, 100 times from 0.5 m EN 60068-2-6 vibration resistance Fc: 10 Hz 150 Hz, 1 mm / 15 g Reverse polarity protection Yes Short-circuit protection Yes EMC Connection type Cable diameter Conductor cross section Conductor cross section Bending radius Bending radius Cable outlet Housing Cable Housing Cable Dimensions (W x H x D) Device status Operating hour counter Operating hour sounter with reset function Digital switching output Pes Boot cycle counter Ves Status indicator LED, green/orange IC 0 Nessistance Ea: 30 g 11 ms; 3 shocks in each direction of the 3 coordinates and exact and exact as a coordinate for interest and exact as a coordinate for interest and exact as a coordinate and exact as a coordinate for interest function Operating hours counter with reset function Digital switching output LED, green/orange	Protection class	III
Shock and vibration resistance EN 60068-2-27 shock resistance Ea: 30 g 11 ms; 3 shocks in each direction of the 3 coordinate axes EIC 60068-2-31 drop test: 2 times from 1 m, 100 times from 0.5 m EN 60068-2-6 vibration resistance Fc: 10 Hz 150 Hz, 1 mm / 15 g Reverse polarity protection Yes Short-circuit protection EMC Connection type Cable diameter Conductor cross section Bending radius Bending radius Cable outlet Material Housing Cable Dimensions (W x H x D) Device status Operating hour counter Operating hour counter Yes Operating hour scounter with reset function Digital switching output Book 2-2 r shock resistance Ea: 30 g 11 ms; 3 shocks in each direction of the 3 coordinate axes EIC 60068-2-31 drop test: 2 times from 1 m, 100 times from 0.5 m EN 60068-2-6 vibration resistance Ea: 30 g 11 ms; 3 shocks in each direction of the 3 coordinates Yes Operating hour counter Yes Operating hour scounter with reset function Digital switching output Yes Boot cycle counter Other Outlink Yes Status indicator EN 60068-2-31 drop test: 2 times from 1 m, 100 times from 0.5 m EN 60068-2-31 drop test: 2 times from 1 m, 100 times from 0.5 m EN 60068-2-31 drop test: 2 times from 1 m, 100 times from 0.5 m EN 60068-2-31 drop test: 2 times from 1 m, 100 times from 0.5 m EN 60068-2-31 drop test: 2 times from 1 m, 100 times from 0.5 m EN 60068-2-31 drop test: 2 times from 1 m, 100 times from 0.5 m EN 60068-2-31 drop test: 2 times from 1 m, 100 times from 0.5 m EN 60068-2-31 drop test: 2 times from 1 m, 100 times from 0.5 m EN 60068-2-31 drop test: 2 times from 1 m, 100 times from 0.5 m EN 60068-2-10 times from 0.5 m EN 6015-10 times from	Power consumption	< 350 mW
nate axes EC 60068-2-31 drop test: 2 times from 1 m, 100 times from 0.5 m EN 60068-2-31 drop test: 2 times from 1 m, 100 times from 0.5 m EN 60068-2-6 vibration resistance Fc: 10 Hz 150 Hz, 1 mm / 15 g Short-circuit protection	Ambient operating temperature	-40 °C +80 °C
Short-circuit protection EMC According to IO-Link IEC 61.131-9 standard Cable with connector M12, with knurled nuts, 0.3 m Cable diameter Conductor cross section Bending radius Cable outlet Cable outlet Material Housing Cable Cable Dimensions (W x H x D) Device status Operating hour counter Operating hours counter with reset function Digital switching output Boot cycle counter Ocable vith fixed installation > 5 x cable diameter Avial	Shock and vibration resistance	nate axes IEC 60068-2-31 drop test: 2 times from 1 m, 100 times from 0.5 m
EMC Connection type Cable with connector M12, with knurled nuts, 0.3 m Cable diameter Conductor cross section Bending radius Cable outlet Cable outlet Cable outlet Material Housing Cable PUR Dimensions (W x H x D) Device status Operating hour counter Operating hours counter with reset function Digital switching output Boot cycle counter Vacable with connector M12, with knurled nuts, 0.3 m Ø 2.6 mm Ø 2.6 mm O 0.08 mm² For flexible use > 10 x cable diameter With fixed installation > 5 x cable diameter Axial Axial Material Housing Cable PUR 10 mm x 28 mm x 28 mm Yes Operating hour counter Yes Operating hour counter with reset function Digital switching output Yes Status indicator LED, green/orange	Reverse polarity protection	Yes
Connection type Connection type Detail Cable diameter Conductor cross section Bending radius Cable outlet Mit fixed installation > 5 x cable diameter With fixed installation > 5 x cable diameter With fixed stallation > 5 x cable diameter With fixed installation > 5 x cable diameter With fixed in	Short-circuit protection	Yes
Connection type Detail Cable diameter Conductor cross section Bending radius Cable outlet Cable outlet Axial Material Housing Cable Cable PUR Dimensions (W x H x D) Device status Operating hour counter Operating hours counter with reset function Digital switching output Bending radius For flexible use > 10 x cable diameter With fixed installation > 5 x cable diameter Wi	EMC	According to IO-Link IEC 61131-9 standard
Cable diameter Conductor cross section Bending radius Cable outlet Housing Cable Cable PUR Dimensions (W x H x D) Device status Operating hour counter Operating hours counter with reset function Digital switching output Boot cycle counter Housing Stainless steel Yes Operating hour counter Operating hours counter with reset function Digital switching output Boot cycle counter IO-Link Status indicator Ø 2.6 mm Ø 2. m	Connection type	Cable with connector M12, with knurled nuts, 0.3 m
Conductor cross section Bending radius For flexible use > 10 x cable diameter With fixed installation > 5 x cable diameter Axial Material Housing Cable Cable PUR Dimensions (W x H x D) Device status Operating hour counter Operating hours counter with reset function Digital switching output Boot cycle counter Ves ULED, green/orange	Connection type Detail	
Bending radius Cable outlet Material Housing Cable Cable PUR Dimensions (W x H x D) Device status Operating hour counter Operating hours counter with reset function Digital switching output Boot cycle counter IO-Link Status indicator For flexible use > 10 x cable diameter With fixed installation > 5 x cable diameter Axial Axial Axial Stainless steel PUR PUR PUR PUR PUR PUR Pes Stainless steel PUR PUR Pes Stainless steel PUR PUR Pes Pus Stainless steel PUR Pes Pus Stainless steel PUR Pus Pes Pus Stainless steel PUR Pus Pes Pus Stainless steel PUR Stainless steel PuR Pus Stainless steel PuR Pur Pus Stainless steel PuR Pur Pus Stainless steel PuR Pur Pur Pus Stainless steel PuR Pur Pur Pus Stainless steel Pur Pur Pur Pur Pur Pur Pur Pu	Cable diameter	Ø 2.6 mm
Cable outlet Material Housing Stainless steel Cable PUR Dimensions (W x H x D) 10 mm x 28 mm x 28 mm Device status Operating hour counter Yes Operating hours counter with reset function Digital switching output Boot cycle counter Other Status indicator With fixed installation > 5 x cable diameter Axial Axial Stainless steel PUR 10 mm x 28 mm x 28 mm Yes Yes 10-Link Yes LED, green/orange	Conductor cross section	0.08 mm ²
Material Housing Stainless steel Cable PUR Dimensions (W x H x D) 10 mm x 28 mm x 28 mm Device status Yes Operating hour counter Yes Operating hours counter with reset function pigital switching output Yes Boot cycle counter Yes IO-Link Yes Status indicator LED, green/orange	Bending radius	For flexible use > 10 x cable diameter
Housing Stainless steel Cable PUR Dimensions (W x H x D) 10 mm x 28 mm x 28 mm Device status Yes Operating hour counter Yes Operating hours counter with reset function Pigital switching output Yes Boot cycle counter Yes 10-Link Yes Status indicator LED, green/orange		
Cable PUR Dimensions (W x H x D) 10 mm x 28 mm x 28 mm Device status Yes Operating hour counter Yes Operating hours counter with reset function Digital switching output Yes Boot cycle counter Yes IO-Link Yes Status indicator LED, green/orange	Cable outlet	Axial
Cable Dimensions (W x H x D) Device status Operating hour counter Operating hours counter with reset function Digital switching output Boot cycle counter Yes IO-Link Status indicator PUR 10 mm x 28 mm x 28 mm Yes Yes Yes Yes LED, green/orange	Material	
Dimensions (W x H x D) Device status Yes Operating hour counter Operating hours counter with reset function Digital switching output Yes Boot cycle counter Yes 10-Link Yes LED, green/orange		
Device status Operating hour counter Operating hours counter with reset function Digital switching output Yes Boot cycle counter Yes IO-Link Yes LED, green/orange		
Operating hour counter Operating hours counter with reset function Ves Digital switching output Yes Boot cycle counter Yes IO-Link Yes Status indicator Yes LED, green/orange	· ·	
Operating hours counter with reset function Digital switching output Yes Boot cycle counter Yes 10-Link Yes Status indicator Yes LED, green/orange		
Digital switching output Yes Boot cycle counter Yes IO-Link Yes Status indicator LED, green/orange		
Boot cycle counter Yes 10-Link Yes Status indicator LED, green/orange		
Yes Status indicator LED, green/orange		
Status indicator LED, green/orange		
		Yes
Switching output Push-pull: PNP/NPN	Status indicator	LED, green/orange
	Switching output	Push-pull: PNP/NPN

MPB10-VS00VSIQ00 | Multi Physics Box

CONDITION MONITORING SENSORS

Safety-related parameters

MTTF _D	428 years
DC _{avg}	0%
T _M (mission time)	20 years

Communication interface

Communication interface	IO-Link V1.1
Communication Interface detail	сомз
Cycle time	5 ms
Process data length	160 Bit
Process data structure	Bit $0 \dots 15$ = alarm bit 1 - alarm bit 16 Bit $16 \dots$ bit 31 = reserved Value $0 \dots 3$ = configurable with vibration and temperature data
VendorID	26
DeviceID HEX	0x8002F6
DeviceID DEC	8389366
Compatible master port type	A
SIO mode support	Yes

Smart Task

Smart Task name		Base logics
Logic function		Direct AND OR
Timer function		Deactivated Switch-on delay Off delay ON and OFF delay Impulse (one shot)
Inverter		Yes
Switching signal		
	Switching signal Q_{L1}	Switching output
	Switching signal \bar{Q}_{L1}	Switching output

Certificates

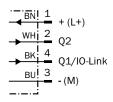
EU declaration of conformity	✓
UK declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cULus certificate	✓
IO-Link certificate	✓

Classifications

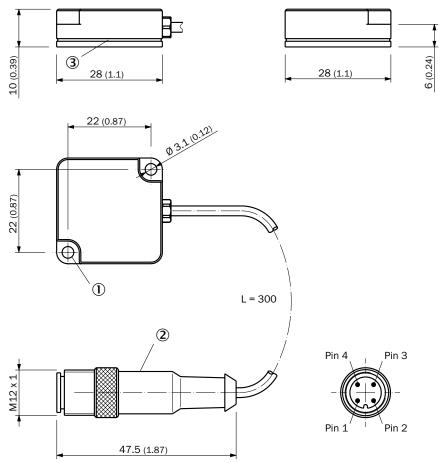
ECLASS 5.0	27209090
ECLASS 5.1.4	27209090
ECLASS 6.0	27209090
ECLASS 6.2	27209090
ECLASS 7.0	27209090

ECLASS 8.0	27209090
ECLASS 8.1	27209090
ECLASS 9.0	27209090
ECLASS 10.0	27209090
ECLASS 11.0	27209090
ECLASS 12.0	27209090
ETIM 5.0	EC004309
ETIM 6.0	EC004309
ETIM 7.0	EC004309
ETIM 8.0	EC004309
UNSPSC 16.0901	39121552

Connection diagram Cd-466



Dimensional drawing



Dimensions in mm (inch)

- ① Mounting holes for M3 x 10 EN ISO 4762
- ② Connection
- ③ Transparent seal with several integrated status LEDs

Recommended accessories

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

Brief description	Туре	part no.
network devices		
	IOLA2US-01101 (SiLink2 Master)	1061790
	SIG200-0A0512200	1089796
	SIG200-0A0412200	1089794
	SIG200-0A0G12200	1102605
	SIG350-0004AP100	6076871
	SIG350-0005AP100	6076923
	SIG350-0006AP100	6076924
2025-11-21 00:50:50 Data sheet Subject to change without notice	CONDITION MONITORING SENSO SIG300-0A0GAA100	RS SICK 1131014

MPB10-VS00VSIQ00 | Multi Physics Box CONDITION MONITORING SENSORS

	Brief description	Туре	part no.	
edge computing devices				
=		SIM1012-0P0G200	1098146	
connectors an	d cables			
	 Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation 	YF2A14-050UB3XLEAX	2095608	
Mounting syst	ems			
S D	 Material: Aluminum Details: Aluminum Items supplied: Mounting hardware included Usable for: Magnetic mounting plate for screwless mounting of the Multi Physics Box 	BEF-APM-MPB	2125439	
6	 Material: Aluminum Details: Aluminum Items supplied: Mounting hardware included Usable for: Adapter plate with M5 threaded hole for mounting the Multi Physics Box 	BEF-AP5-MPB	2129152	
0	 Material: Aluminum Details: Aluminum Items supplied: Mounting hardware included Usable for: Adapter plate with M8 threaded hole for mounting the Multi Physics Box 	BEF-AP8-MPB	2129153	

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

