

**MEASURING WHEEL ENCODERS** 



MEASURING WHEEL ENCODERS



#### Ordering information

Туре	Part no.
DBV50E-22RMA2500	1090532

Other models and accessories -> www.sick.com/DBV50





#### Detailed technical data

#### Safety-related parameters

MTTF <sub>D</sub> (mean time to dangerous failure)	600 years (EN ISO 13849-1) <sup>1)</sup>
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<sup>1)</sup> This product is a standard product and does not constitute a safety component as defined in the Machinery Directive. Calculation based on nominal load of components, average ambient temperature 40 °C, frequency of use 8760 h/a. All electronic failures are considered hazardous. For more information, see document no. 8015532.

Performance	
Pulses per revolution	2,500
Resolution in pulses/mm	12.5
Measuring increment (resolution in mm/ pulse)	0.08
Measuring step deviation	± 18° / pulses per revolution
Error limits	$\pm$ 4 mm/m, subject to the measuring wheel (wheel + surface)
Duty cycle	≤ 0.5 ± 5 %
Initialization time	< 3 ms
Interfaces	
Communication interface	Incremental
Communication Interface detail	Open Collector
Number of signal channels	3 channel
Electrical data	
Operating power consumption (no load)	50 mA
Connection type	Cable, 5-wire, universal, 5 m <sup>1)</sup>
Power consumption max. without load	≤ 0.5 W
Supply voltage	4.5 V 30 V
Load current max.	30 mA
Maximum output frequency	≤ 300 kHz
Reference signal, number	1
Reference signal, position	90°, electric, logically gated with A and B
Reverse polarity protection	1

<sup>1)</sup> Number of wires depending on electrical interface: Interface A, C, E: 8-wire; Interface G, P, R: 5-wire.

 $^{\rm 2)}$  The short-circuit rating is only given if Us and GND are connected correctly.

MEASURING WHEEL ENCODERS

#### Short-circuit protection of the outputs

<sup>1)</sup> Number of wires depending on electrical interface: Interface A, C, E: 8-wire; Interface G, P, R: 5-wire.

**/**<sup>2)</sup>

 $^{\rm 2)}$  The short-circuit rating is only given if Us and GND are connected correctly.

Mech	nanical	data

Measuring wheel circumference200 mmMeasuring wheel surface		
Spring arm design         G3.5 mm spring arm, encoder on mounting side (left), single wheel           Mass         300 g           Encoder material         Sold           Finage         Aluminum           Aluminum         Aluminum           Abasi         Spring stell, anti-corrosive           Aluminum         Operating spring element           Spring stell, anti-corrosive         Aluminum           Aluminum         Operating spring element           Spring stell, anti-corrosive         Aluminum           Aluminum         Operating spring spring element         Spring stell, anti-corrosive           Aluminum         Operating spring spring arm, encoder on mounting side (left), single wheel         Mass           Spring arm mechanism material         Spring stell, anti-corrosive         Aluminum           Spring stell, anti-corrosive         Aluminum         Spring stell, anti-corrosive           Maximum operating spred         0.9 Ncm (at 20 °C)         Operating spring deffection         Spring structure         Spring structure           Maximum operating spred         3.000 min <sup>-1 2/1</sup> Spring structure         Spring structure         Spring structure           Maximum correlation         14 mm at 14 N spring travel         Spring structure         Spring structure         Spring structure	Measuring wheel circumference	200 mm
Mass+ 30 gEncoder material+ 30 gEncoder materialStatiles steleStatiles steleAuminumMassAuminumMassAuminumMassAuminumMassSpring dematicSpring stelesSpring stelesMeasuring wheel, springMuninumOperating torque0.9 Nom (at 20 °C)Operating speed0.9 Nom (at 20 °C)Operating speed0.9 Nom (at 20 °C)Mainum operating speed0.9 Nom (at 20 °C)Mainum operating speed0.9 Nom (at 20 °C)Mainum operating speed0.9 Nom (at 20 °C)Mainum travel/deflection of spring3.00 min <sup>12</sup> Maximum travel/deflection of spring4.1 Mang travelRecommended pretension5.0 X 10 m and effection <sup>3</sup> Recommended spring deflection2.1 m and at 2.1 m and at	Measuring wheel surface	O-ring NBR70 <sup>1)</sup>
Encoder material         A           Fine of the state of the st	Spring arm design	63.5 mm spring arm, encoder on mounting side (left), single wheel
And and a states         Finage       Auminum         Audio       Auminum         Audio       Auminum         Audio       PC         Spring arm mechanism material       Sinfa steal, auminum         Measuring wheel, spring       Auminum         Measuring wheel, spring       Auminum         Spring farm       0.9 Non (at 20 °C)         Operating speed       0.9 Non (at 20 °C)         Spring farm       0.9 Non (at 20 °C)         Ausinum operating speed       0.9 Non (at 20 °C)         Maximum operating speed       1.9 Non (at 20 °C)         Resource speed       1.9 Non (at 20 °C)         Resource speed speed sp	Mass	+ 300 g
Flame       Auminum         Auminum       PVC         Spring arm mechanism material       Spring steel, anti-corrosive         Measuring wheel, spring arm       O.9 Nom (at 20 °C)         Operating speed       0.6 Nom (at 20 °C)         Operating speed       0.50 Nom <sup>-1</sup> <sup>2</sup> Maximum operating speed       0.50 Nom <sup>-1</sup> <sup>2</sup> Maximum travel/deflection of spring arm       14 mm at 14 N spring travel         Recommended pretension       Sin Nat 10 mm deflection <sup>3</sup> Recommended spring deflection       Sin Main         Spring cleift of spring element       2 mm	Encoder material	
House Cable         Aluminum Pice           Spring arm mechanism material	Shaft	Stainless steel
CacheP/CSpring arm mechanism materialSpring steel, anti-corrosiveSpring steel, anti-corrosiveAiuminumMeasuring wheel, spring0.9 kom (at 20 °C)Sprating torque0.9 kom (at 20 °C)Operating speed0.9 kom (at 20 °C)Maximum operating speed0.9 kom (at 20 °C)Baring lifetime0.9 kom (at 20 °C)Maximum tarvel/deflection of spring area0.9 kom (at 20 °C)Maximum tarvel/deflection of spring area0.0 kom (at 20 °C)Baring lifetime0.0 kom (at 20 °C)	Flange	Aluminum
Spring am mechanism material         Service of the service of t	Housing	Aluminum
Spring elementSpring steel, anti-corrosiveMeasuring wheel, spring andAluminumStart up torque0.9 Ncm (at 20 °C)Operating torque0.6 Ncm (at 20 °C)Operating speed3.000 min <sup>-1</sup> Maximum operating speed0.9 Ncm (at 20 °C)Bearing lifetime0.00 min <sup>-1 2)</sup> Maximum travel/deflection of spring and pring (continuous operation)0.9 Ncm (at 14 N spring travelRecommended pretension5.0 Nct 10 num deflection <sup>3</sup> Recommended spring deflection2 num13 numService life of spring element1.4 million cycles <sup>4</sup> )Mounting position relative to the measureFreferably from above, from below possible <sup>5</sup> )	Cable	PVC
Measuring wheel, spring and         Aluminum           Start up torque         0.9 Ncm (at 20 °C)           Operating torque         0.6 Ncm (at 20 °C)           Operating speed         1,500 min <sup>-1</sup> Maximum operating speed         3,000 min <sup>-1 2)</sup> Bearing lifetime         2.0 x 10^9 revolutions           Maximum travel/deflection of spring arm         14 mm at 14 N spring travel           Recommended pretension         15 N At 10 mm deflection <sup>3</sup> )           Recommended spring deflection         2 mm 13 mm           Service life of spring element         > 1.4 million cycles <sup>4</sup> )           Mounting position relative to the measureg         Preterably from above, from below possible <sup>5</sup> )	Spring arm mechanism material	
Start up torque0.9 Ncm (at 20 °C)Operating torque0.6 Ncm (at 20 °C)Operating speed1,500 min <sup>-1</sup> Maximum operating speed3,000 min <sup>-1 2)</sup> Bearing lifetime2.0 x 10^9 revolutionsMaximum travel/deflection of spring arm14 mm at 14 N spring travelRecommended pretension15 N At 10 mm deflection <sup>3</sup> )Recommended spring deflection2 mm13 mmRecommended spring deflection2 ntm13 mmService life of spring elementPreferably from above, from below possible <sup>5</sup> )	Spring element	Spring steel, anti-corrosive
Operating torque0.6 Ncm (at 20 °C)Operating speed1,500 min <sup>-1</sup> Maximum operating speed3,000 min <sup>-1 2)</sup> Bearing lifetime2.0 x 10°9 revolutionsMaximum travel/deflection of spring arm14 mm at 14 N spring travelRecommended pretension15 N At 10 mm deflection <sup>3</sup> )Max. permissible working area for the spring (continuous operation)± 3 mmRecommended spring deflection2 mm 13 mmService life of spring element> 1.4 million cycles <sup>4</sup> )Mounting position relative to the measurugPreferably from above, from below possible <sup>5</sup> )	Measuring wheel, spring arm	
Operating speed1,500 min <sup>-1</sup> Maximum operating speed3,000 min <sup>-1 2)</sup> Bearing lifetime2.0 x 10^9 revolutionsMaximum travel/deflection of spring arm14 mm at 14 N spring travelRecommended pretension15 N At 10 mm deflection <sup>3)</sup> Max. permissible working area for the spring (continuous operation)2 mm 13 mmRecommended spring deflection2 nm 13 mmService life of spring element2 net 13 mmMounting position relative to the measurePreferably from above, from below possible <sup>5)</sup>	Start up torque	0.9 Ncm (at 20 °C)
Maximum operating speed3,000 min <sup>-1 2)</sup> Bearing lifetime2.0 x 10^9 revolutionsMaximum travel/deflection of spring arm14 mm at 14 N spring travelRecommended pretension15 N At 10 mm deflection <sup>3)</sup> Max. permissible working area for the spring (continuous operation)2 mm 13 mmRecommended spring deflection2 mm 13 mmService life of spring element> 1.4 million cycles <sup>4)</sup> Mounting position relative to the measuringPreferably from above, from below possible <sup>5)</sup>	Operating torque	0.6 Ncm (at 20 °C)
Bearing lifetime2.0 x 10^9 revolutionsMaximum travel/deflection of spring arm14 mm at 14 N spring travelRecommended pretension15 N At 10 mm deflection <sup>3</sup> )Max. permissible working area for the spring (continuous operation)± 3 mmRecommended spring deflection2 mm 13 mmService life of spring element> 1.4 million cycles <sup>4</sup> )Mounting position relative to the measuringPreferably from above, from below possible <sup>5</sup> )	Operating speed	1,500 min <sup>-1</sup>
Maximum travel/deflection of spring arm14 mm at 14 N spring travelRecommended pretension15 N At 10 mm deflection <sup>3</sup> )Max. permissible working area for the spring (continuous operation)± 3 mmRecommended spring deflection2 mm 13 mmService life of spring element> 1.4 million cycles <sup>4</sup> )Mounting position relative to the measuringPreferably from above, from below possible <sup>5</sup> )	Maximum operating speed	3,000 min <sup>-1 2)</sup>
Recommended pretension15 N At 10 mm deflection <sup>3</sup> )Max. permissible working area for the spring (continuous operation)± 3 mmRecommended spring deflection2 mm 13 mmService life of spring element> 1.4 million cycles <sup>4</sup> )Mounting position relative to the measuringPreferably from above, from below possible <sup>5</sup> )	Bearing lifetime	2.0 x 10^9 revolutions
Max. permissible working area for the spring (continuous operation)       ± 3 mm         Recommended spring deflection       2 mm 13 mm         Service life of spring element       > 1.4 million cycles <sup>4</sup> )         Mounting position relative to the measuring       Preferably from above, from below possible <sup>5</sup> )	Maximum travel/deflection of spring arm	14 mm at 14 N spring travel
spring (continuous operation)     2 mm 13 mm       Recommended spring deflection     2 mm 13 mm       Service life of spring element     > 1.4 million cycles <sup>4</sup> )       Mounting position relative to the measuring     Preferably from above, from below possible <sup>5</sup> )	Recommended pretension	15 N At 10 mm deflection <sup>3)</sup>
Service life of spring element       > 1.4 million cycles <sup>4</sup> )         Mounting position relative to the measuring       Preferably from above, from below possible <sup>5</sup> )		± 3 mm
Mounting position relative to the measuring Preferably from above, from below possible <sup>5)</sup>	Recommended spring deflection	2 mm 13 mm
	Service life of spring element	> 1.4 million cycles <sup>4)</sup>
	•.	Preferably from above, from below possible <sup>5)</sup>

<sup>1)</sup> The surface of a measuring wheel is subject to wear. This depends on contact pressure, acceleration behavior in the application, traversing speed, measurement surface, mechanical alignment of the measuring wheel, temperature, and ambient conditions. We recommend you regularly check the condition of the measuring wheel and replace as required.

<sup>2)</sup> No permanent operation. Decreasing signal quality.

 $^{\rm 3)}$  When measured from the top of the measuring surface.

 $^{(4)}$  One cycle corresponds to an upward and downward movement of  $\pm$  3 mm from the recommended pretension position.

<sup>5)</sup> When mounted from below, the encoder weight during spring pretensioning must be taken into account.

#### Ambient data

EMC	According to EN 61000-6-2 and EN 61000-6-3 (class A)
Enclosure rating	IP65
Permissible relative humidity	90 % (Condensation not permitted)
Operating temperature range	−20 °C +85 °C −35 °C +95 °C (on request)
Storage temperature range	-40 °C +100 °C, without package

MEASURING WHEEL ENCODERS

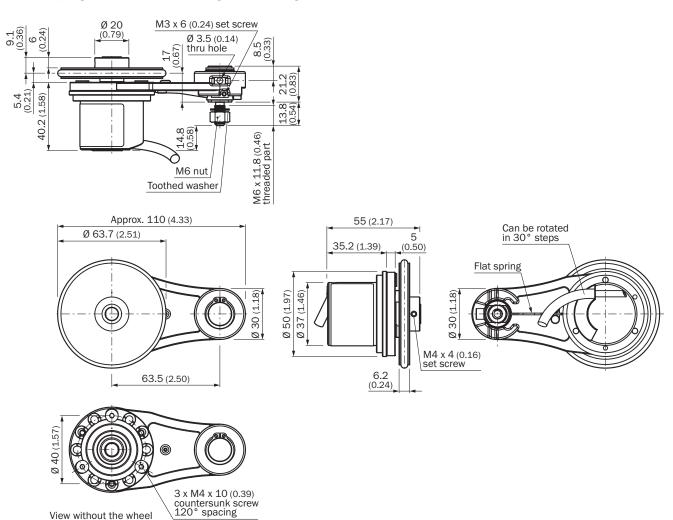
#### Classifications

ECLASS 5.0	27270501
ECLASS 5.1.4	27270501
ECLASS 6.0	27270590
ECLASS 6.2	27270590
ECLASS 7.0	27270501
ECLASS 8.0	27270501
ECLASS 8.1	27270501
ECLASS 9.0	27270501
ECLASS 10.0	27270790
ECLASS 11.0	27270707
ECLASS 12.0	27270504
ETIM 5.0	EC001486
ETIM 6.0	EC001486
ETIM 7.0	EC001486
ETIM 8.0	EC001486
UNSPSC 16.0901	41112113

MEASURING WHEEL ENCODERS

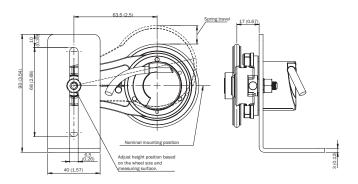
Dimensional drawing (Dimensions in mm (inch))

63.5 mm spring arm, encoder on mounting side (left), single wheel



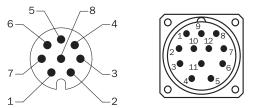
#### Attachment specifications

View without the wheel



MEASURING WHEEL ENCODERS

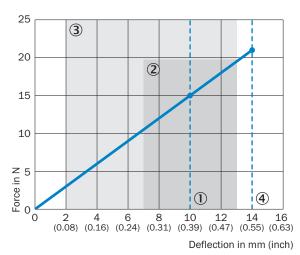
#### **PIN** assignment



View of M12 male device connector on cable / housing

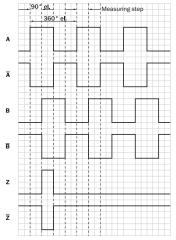
#### Diagrams

Force deflection chart with working range



- ① Proposed Pre-tension: 10 mm
- ② Allowed operating travel (continuous operation) +/- 3 mm
- ③ Proposed spring deflection: 2 13 mm
- ④ Maximum spring travel: 14 mm

Signal outputs for electrical interfaces TTL and HTL



CW with view on the encoder shaft, compare dimensional drawing.Interfaces G, P, R perform only the channels A, B, Z.

MEASURING WHEEL ENCODERS

#### Recommended accessories

Other models and accessories -> www.sick.com/DBV50

	Brief description	Туре	Part no.	
Flanges				
	Adapter flange for modular measuring wheel system	BEF-AP-MRS	2084969	
Mounting bra	ackets and plates			
	Mounting bracket for encoder with spigot 36 mm	BEF-WF-MRS	2084709	
Other mount	ing accessories			
•	Aluminium measuring wheel with 0-ring (NBR70) for 8 mm solid shaft, circumference 200 mm	BEF-MR008020R	2055223	
	0-ring for measuring wheels (circumference 200 mm)	BEF-0R-053-040	2064061	
Others				
	<ul> <li>Connection type head A: Female connector, M12, 8-pin, straight</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Incremental, SSI</li> <li>Cable: 2 m, 8-wire, PUR, halogen-free</li> <li>Description: Incremental, SSI, shielded, Head A: female connector, M12, 8-pin, straight Head B: cable Cable: suitable for drag chain, PVC, shielded, 4 x 2 x 0.25 mm<sup>2</sup>, Ø 7.0 mm</li> <li>Connection systems: Flying leads</li> </ul>	DOL-1208-G02MAC1	6032866	
	<ul> <li>Connection type head A: Female connector, M12, 8-pin, straight</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Incremental, SSI</li> <li>Cable: 5 m, 8-wire, PUR, halogen-free</li> <li>Description: Incremental, SSI, shielded, Head A: female connector, M12, 8-pin, straight Head B: cable Cable: suitable for drag chain, PVC, shielded, 4 x 2 x 0.25 mm<sup>2</sup>, Ø 7.0 mm</li> <li>Connection systems: Flying leads</li> </ul>	DOL-1208-G05MAC1	6032867	
	<ul> <li>Connection type head A: Female connector, M12, 8-pin, straight</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Incremental, SSI</li> <li>Cable: 10 m, 8-wire, PUR, halogen-free</li> <li>Description: Incremental, SSI, shielded, Head A: female connector, M12, 8-pin, straight Head B: cable Cable: suitable for drag chain, PVC, shielded, 4 x 2 x 0.25 mm<sup>2</sup>, Ø 7.0 mm</li> <li>Connection systems: Flying leads</li> </ul>	DOL-1208-G10MAC1	6032868	
	<ul> <li>Connection type head A: Female connector, M12, 8-pin, straight</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Incremental, SSI</li> <li>Cable: 20 m, 8-wire, PUR, halogen-free</li> <li>Description: Incremental, SSI, shielded, Head A: female connector, M12, 8-pin, straight Head B: cable Cable: suitable for drag chain, PVC, shielded, 4 x 2 x 0.25 mm<sup>2</sup>, Ø 7.0 mm</li> <li>Connection systems: Flying leads</li> </ul>	DOL-1208-G20MAC1	6032869	
	<ul> <li>Connection type head A: Female connector, M12, 8-pin, straight</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Incremental, SSI</li> <li>Cable: 25 m, 8-wire, PUR, halogen-free</li> <li>Description: Incremental, SSI, shielded, Head A: female connector, M12, 8-pin, straight Head B: cable Cable: suitable for drag chain, PVC, shielded, 4 x 2 x 0.25 mm<sup>2</sup>, Ø 7.0 mm</li> <li>Connection systems: Flying leads</li> </ul>	DOL-1208-G25MAC1	6067859	

# DBV50E-22RMA2500 | DBV50 MEASURING WHEEL ENCODERS

Brief description	Туре	Part no.
<ul> <li>Connection type head A: Flying leads</li> <li>Connection type head B: Flying leads</li> <li>Signal type: SSI, Incremental, HIPERFACE<sup>®</sup></li> <li>Items supplied: By the meter</li> <li>Cable: 8-wire, PUR, halogen-free</li> <li>Description: SSI, Incremental, HIPERFACE<sup>®</sup>, shielded</li> </ul>	LTG-2308-MWENC	6027529
<ul> <li>Connection type head A: Flying leads</li> <li>Connection type head B: Flying leads</li> <li>Signal type: SSI, Incremental</li> <li>Items supplied: By the meter</li> <li>Cable: 11-wire, PUR</li> <li>Description: SSI, Incremental, shielded</li> </ul>	LTG-2411-MW	6027530
<ul> <li>Connection type head A: Flying leads</li> <li>Connection type head B: Flying leads</li> <li>Signal type: SSI, Incremental</li> <li>Items supplied: By the meter</li> <li>Cable: 12-wire, PUR, halogen-free</li> <li>Description: SSI, Incremental, shielded</li> </ul>	LTG-2512-MW	6027531
<ul> <li>Connection type head A: Flying leads</li> <li>Connection type head B: Flying leads</li> <li>Signal type: SSI, TTL, HTL, Incremental</li> <li>Items supplied: By the meter</li> <li>Cable: 12-wire, UV and saltwater-resistant, PUR, halogen-free</li> <li>Description: SSI, TTL, HTL, Incremental, shielded, Head A: cable Head B: cable Cable: suitable for drag chain, PUR, halogen-free, shielded, UV and saltwater resistant, 4 x 2 x 0.25 mm<sup>2</sup> + 2 x 0.5 mm<sup>2</sup> + 2 x 0.14 mm<sup>2</sup>, Ø 7.8 mm</li> </ul>	LTG-2612-MW	6028516
<ul> <li>Connection type head A: Male connector, M12, 8-pin, straight, A-coded</li> <li>Signal type: Incremental</li> <li>Cable: CAT5, CAT5e</li> <li>Description: Incremental, shielded, Head A: male connector, M12, 8-pin, straight, A coded, shielded, for cable diameter 4 mm 8 mm Head B: - Operating temperature: -40 °C +85 °C</li> <li>Connection systems: IDC quick connection</li> <li>Permitted cross-section: 0.14 mm<sup>2</sup> 0.34 mm<sup>2</sup></li> </ul>	STE-1208-GA01	6044892
<ul> <li>Connection type head A: Male connector, M23, 12-pin, straight, A-coded</li> <li>Signal type: HIPERFACE<sup>®</sup>, SSI, Incremental, RS-422</li> <li>Description: HIPERFACE<sup>®</sup>, SSI, Incremental, RS-422, shielded, M23 male connector</li> <li>Connection systems: Solder connection</li> </ul>	STE-2312-G	6027537
<ul> <li>Connection type head A: Male connector, M23, 12-pin, straight, A-coded</li> <li>Signal type: HIPERFACE<sup>®</sup>, SSI, Incremental</li> <li>Description: HIPERFACE<sup>®</sup>, SSI, Incremental, shielded, Head A: male connector, M23, 12-pin, straight, for cable diameter 5.5 mm 10.5 mm Head B: - Operating temperature: -40 °C +125 °C</li> <li>Connection systems: Solder connection</li> </ul>	STE-2312-G01	2077273
<ul> <li>Connection type head A: Female connector, M12, 8-pin, straight, A-coded</li> <li>Signal type: Incremental, SSI</li> <li>Cable: CAT5, CAT5e</li> <li>Description: Incremental, SSI, shielded, Head A: female connector, M12, 8-pin, straight, A encoded, shielded, for cable diameter 4 mm 8 mm Head B: - Operating temperature: -40 °C +85 °C</li> <li>Connection systems: IDC quick connection</li> <li>Permitted cross-section: 0.14 mm<sup>2</sup> 0.34 mm<sup>2</sup></li> </ul>	DOS-1208-GA01	6045001
<ul> <li>Connection type head A: Female connector, M23, 12-pin, straight, A-coded</li> <li>Signal type: HIPERFACE<sup>®</sup>, SSI, Incremental</li> <li>Description: HIPERFACE<sup>®</sup>, SSI, Incremental, shielded, Head A: female connector, M23, 12-pin, straight, shielded, for cable diameter 5.5 mm 10.5 mm Head B: Operating temperature: -20 °C +130 °C</li> <li>Connection systems: Solder connection</li> </ul>	DOS-2312-G	6027538

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	Brief description	Туре	Part no.
	<ul> <li>Connection type head A: Female connector, M23, 12-pin, straight, A-coded</li> <li>Signal type: HIPERFACE<sup>®</sup>, SSI, Incremental</li> <li>Description: HIPERFACE<sup>®</sup>, SSI, Incremental, shielded, Head A: female connector, M23, 12-pin, straight, shielded, for cable diameter 5.5 mm 10.5 mm Head B: - Operating temperature: -40 °C +125 °C</li> <li>Connection systems: Solder connection</li> </ul>	DOS-2312-GO2	2077057
6-0	<ul> <li>Connection type head A: Female connector, M23, 12-pin, angled, A-coded</li> <li>Signal type: HIPERFACE<sup>®</sup>, SSI, Incremental</li> <li>Description: HIPERFACE<sup>®</sup>, SSI, Incremental, shielded, Head A: female connector, M23, 12-pin, angled, shielded, for cable diameter 4.2 mm 6.6 mm Head B: - Operating temperature: -20 °C +130 °C</li> <li>Connection systems: Solder connection</li> </ul>	DOS-2312-W01	2072580
	<ul> <li>Connection type head A: Female connector, M23, 9-pin, straight, A-coded</li> <li>Signal type: HIPERFACE<sup>®</sup>, SSI, Incremental</li> <li>Description: HIPERFACE<sup>®</sup>, SSI, Incremental, shielded, Head A: female connector, M23, 9-pin, straight, shielded, for cable diameter 5.5 mm 10.5 mm Head B: Operating temperature: -20 °C +130 °C</li> <li>Connection systems: Solder connection</li> </ul>	DOS-2309-G	6028533

# 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



Online data sheet

