DKV60

Rugged, high-performance measuring wheel incremental encoder

SICK
Sensor Intelligence.

DKV60

Technical data overview

Resolution in pulses/mm	0.015 ... 10 (depending on type)
Spring deflection spring arm	± 1.5 mm
Spring arm design	69.5 mm spring arm
Measuring wheel circumference	200 mm
Measuring wheel surface	Cross knurled aluminium / O ring EPDM (depending on type)
Communication interface	Incremental
Communication Interface detail	TTL / HTL (depending on type)
Connection type	Cable Cable, with male connector, M12
Supply voltage	4.5 V ... 30 V (depending on type)
Operating temperature range	–35 °C ... +95 °C (on request) (depending on type)

Product description

The compact DKV60 measuring wheel encoder is a cost-effective way to determine position and speed directly on the conveyor belt or rollers. The DKV60 consists of an incremental encoder, measuring roller, mounting plate and cable guide and is delivered fully assembled. 2 different measuring wheel surfaces enable adaptation to the measuring surface.

At a glance

• Complete pre-assembled measurement system
• Measuring wheel with knurl or O-ring for adjusting to the measuring surface
• Mounting bracket made of stainless spring steel
• High resolution up to 0.1 mm (1 ... 2,000 pulses/revolution)
• Electrical interfaces: Open Collector NPN, TTL/RS-422 or HTL/push pull.

• Connection via cable connection, can be used radially or axially with free cable ends or assembled with M12 male connector
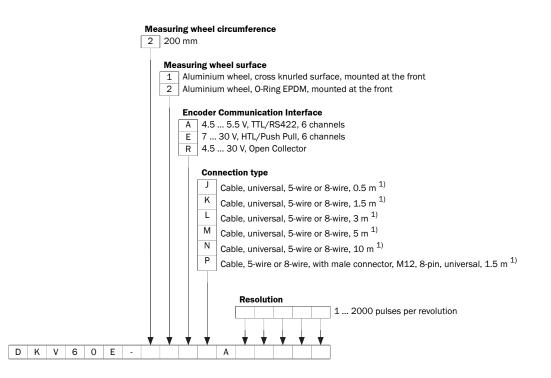
Your benefits

• Complete system with universal mounting bracket and integrated cable guide enables quick and simple mounting
• Mounting bracket made of spring steel allows for high measurement accuracy with deflection of the measuring wheel in X and Y direction
• Low-cost encoder with excellent quality
• High IP protection class, non-rusting mounting bracket and rugged encoder make the device suitable for use in harsh ambient conditions
• Compact dimensions allow for easy installation, even in confined spaces

Fields of application

• Measurement of position and speed directly on conveyor belts in wood processing machines, steel and metal processing machines, handling and warehouse systems, sorting systems and conveyor belts, textile machines, printing and paper

Type code

Other models and accessories ➜ www.sick.com/DKV60

Measuring wheel circumference

| 2 | 200 mm |

Measuring wheel surface

| 1 | Aluminium wheel, cross knurled surface, mounted at the front |
| 2 | Aluminium wheel, O-Ring EPDM, mounted at the front |

Encoder Communication Interface

A	4.5 ... 5.5 V, TTL/RS422, 6 channels
E	7 ... 30 V, HTL/Push Pull, 6 channels
R	4.5 ... 30 V, Open Collector

Connection type

J	Cable, universal, 5-wire or 8-wire, 0.5 m [1]
K	Cable, universal, 5-wire or 8-wire, 1.5 m [1]
L	Cable, universal, 5-wire or 8-wire, 3 m [1]
M	Cable, universal, 5-wire or 8-wire, 5 m [1]
N	Cable, universal, 5-wire or 8-wire, 10 m [1]
P	Cable, 5-wire or 8-wire, with male connector, M12, 8-pin, universal, 1.5 m [1]

Resolution

| | 1 ... 2000 pulses per revolution |

| D | K | V | 6 | 0 | E | - | | | | A | | | | | |

[1] The universal cable outlet is positioned so that a kink-free cable in a radial or axial direction is possible.

Ordering information

Other models and accessories ➔ www.sick.com/DKV60

- **Type of movement at location of encoder installation:** rotary, linear
- **Mechanical adaptation:** With measuring wheel
- **Measuring wheel circumference:** 200 mm
- **Measuring wheel surface:** cross knurled aluminium
- **Spring arm design:** 69.5 mm spring arm

Communica-tion interface	Supply voltage	Mounted encoder	Connection type	Resolution in pulses/mm	Type	Part no.
10 V ... 30 V, Incremental, HTL, Push pull	10 V ... 30 V	DBS50 Core	Cable, 8-wire, universal, 1.5 m	0.075	DKV60E-21EKA0015	On request
		DBS50 Core, DBS50E-SKEKA0003	Cable, 8-wire, universal, 1.5 m	0.015	DKV60E-21EKA0003	1119162
		DBS50 Core, DBS50E-SKEKA0004	Cable, 8-wire, universal, 1.5 m	0.02	DKV60E-21EKA0004	1119163
		DBS50 Core, DBS50E-SKEKA0020	Cable, 8-wire, universal, 1.5 m	0.1	DKV60E-21EKA0020	1115702
		DBS50 Core, DBS50E-SKEKA0200	Cable, 8-wire, universal, 1.5 m	1	DKV60E-21EKA0200	1115703
		DBS50 Core, DBS50E-SKEKA1000	Cable, 8-wire, universal, 1.5 m	5	DKV60E-21EKA1000	1115704
			Cable, 8-wire, universal, 10 m	5	DKV60E-21ENA1000	1124663
		DBS50 Core, DBS50E-SKEKA2000	Cable, 8-wire, universal, 1.5 m	10	DKV60E-21EKA2000	1115705
		DBS50 Core, DBS50E-SKEPA0004	Cable, 8-wire, with male connector, M12, 8-pin, universal, 1.5 m	0.02	DKV60E-21EPA0004	1119165
		DBS50 Core, DBS50E-SKEPA0200		1	DKV60E-21EPA0200	1115707
		DBS50 Core, DBS50E-SKEPA1000		5	DKV60E-21EPA1000	1115708
		DBS50 Core, DBS50E-SKEPA2000		10	DKV60E-21EPA2000	1115709
10 V ... 30 V, Incremental, TTL, RS-422	10 V ... 30 V	DBS50 Core, DBS50E-SKEPA0020		0.1	DKV60E-21EPA0020	1115706

Communication interface	Supply voltage	Mounted encoder	Connection type	Resolution in pulses/mm	Type	Part no.
4.5 V ... 5.5 V, Incremental, TTL, RS-422	4.5 V ... 5.5 V	DBS50 Core, DBS50E-SKAKA0020	Cable, 8-wire, universal, 1.5 m	0.1	DKV60E-21AKA0020	1115129
		DBS50 Core, DBS50E-SKAKA0200	Cable, 8-wire, universal, 1.5 m	1	DKV60E-21AKA0200	1115689
		DBS50 Core, DBS50E-SKAKA1000	Cable, 8-wire, universal, 1.5 m	5	DKV60E-21AKA1000	1115690
		DBS50 Core, DBS50E-SKAKA2000	Cable, 8-wire, universal, 1.5 m	10	DKV60E-21AKA2000	1115691
		DBS50 Core, DBS50E-SKAPA0200	Cable, 8-wire, with male connector, M12, 8-pin, universal, 1.5 m	1	DKV60E-21APA0200	1115692
		DBS50 Core, DBS50E-SKAPA2000		10	DKV60E-21APA2000	1115693

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- **Type of movement at location of encoder installation:** rotary, linear
- **Mechanical adaptation:** With measuring wheel
- **Measuring wheel circumference:** 200 mm
- **Measuring wheel surface:** O ring EPDM
- **Spring arm design:** 69.5 mm spring arm

Communication interface	Supply voltage	Mounted encoder	Connection type	Resolution in pulses/mm	Type	Part no.
10 V … 30 V, Incremental, HTL, Push pull	10 V … 30 V	DBS50 Core, DBS50E-SKEKA0020	Cable, 8-wire, universal, 1.5 m	0.1	DKV60E-22EKA0020	1115710
		DBS50 Core, DBS50E-SKEKA0040	Cable, 8-wire, universal, 1.5 m	0.2	DKV60E-22EKA0040	1119166
		DBS50 Core, DBS50E-SKEKA0100	Cable, 8-wire, universal, 1.5 m	0.5	DKV60E-22EKA0100	1115711
		DBS50 Core, DBS50E-SKEKA0200	Cable, 8-wire, universal, 1.5 m	1	DKV60E-22EKA0200	1115712
		DBS50 Core, DBS50E-SKEKA1000	Cable, 8-wire, universal, 1.5 m	5	DKV60E-22EKA1000	1115713
		DBS50 Core, DBS50E-SKEKA1200	Cable, 8-wire, universal, 1.5 m	6	DKV60E-22EKA1200	1115714
		DBS50 Core, DBS50E-SKEKA2000	Cable, 8-wire, universal, 1.5 m	10	DKV60E-22EKA2000	1115715
		DBS50 Core, DBS50E-SKEPA0004	Cable, 8-wire, with male connector, M12, 8-pin, universal, 1.5 m	0.02	DKV60E-22EPA0004	1119167
		DBS50 Core, DBS50E-SKEPA0020		0.1	DKV60E-22EPA0020	1115721
		DBS50 Core, DBS50E-SKEPA0200		1	DKV60E-22EPA0200	1115722
		DBS50 Core, DBS50E-SKEPA1000		5	DKV60E-22EPA1000	1115723
		DBS50 Core, DBS50E-SKEPA2000		10	DKV60E-22EPA2000	1115724

Communica-tion interface	Supply voltage	Mounted encoder	Connection type	Resolution in pulses/mm	Type	Part no.
4.5 V ... 5.5 V, Incremental, TTL, RS-422	4.5 V ... 5.5 V	DBS50 Core, DBS50E-SKAKA0020	Cable, 8-wire, universal, 1.5 m	0.1	DKV60E-22AKA0020	1115694
		DBS50 Core, DBS50E-SKAKA0100	Cable, 8-wire, universal, 1.5 m	0.5	DKV60E-22AKA0100	1115695
		DBS50 Core, DBS50E-SKAKA0200	Cable, 8-wire, universal, 1.5 m	1	DKV60E-22AKA0200	1115696
		DBS50 Core, DBS50E-SKAKA1000	Cable, 8-wire, universal, 1.5 m	5	DKV60E-22AKA1000	1115697
		DBS50 Core, DBS50E-SKAKA2000	Cable, 8-wire, universal, 1.5 m	10	DKV60E-22AKA2000	1115698
		DBS50 Core, DBS50E-SKAPA0020	Cable, 8-wire, with male connec-tor, M12, 8-pin, universal, 1.5 m	0.1	DKV60E-22APA0020	1115699
		DBS50 Core, DBS50E-SKAPA1000		5	DKV60E-22APA1000	1115700
		DBS50 Core, DBS50E-SKAPA2000		10	DKV60E-22APA2000	1115701

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.

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For us, that is "Sensor Intelligence."

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