



# DRS61-AAK08192

DRS61

INCREMENTAL ENCODERS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	Part no.
DRS61-AAK08192	1035011

Other models and accessories → [www.sick.com/DRS61](http://www.sick.com/DRS61)

### Detailed technical data

#### Performance

<b>Pulses per revolution</b>	8,192
<b>Measuring step</b>	90°, electronically/ppr
<b>Measuring step deviation at non binary number of lines</b>	0.016°
<b>Measuring step deviation at binary number of lines</b>	0.005°
<b>Initialization time</b>	40 s

#### Interfaces

<b>Electrical interface</b>	Radial, 1.5 m
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#### Electrical data

<b>Electrical interface</b>	4.5 V ... 5.5 V, TTL/RS422
<b>Connection type</b>	Radial, 1.5 m
<b>Supply voltage</b>	4.5 V ... 5.5 V
<b>Load current</b>	≤ 20
<b>Maximum output frequency</b>	≤ 820 Hz
<b>Zero pulse width</b>	Freely programmable
<b>Reference signal, number</b>	1
<b>Reference signal, position</b>	90°, electric, logically gated with A and B 180°, electric, logically gated with A and B

#### Mechanical data

<b>Mechanical version</b>	Blind hollow shaft
<b>Shaft diameter</b>	6 mm, 8 mm, 10 mm, 12 mm, 15 mm x 1/2", 1/4", 3/8"
<b>Weight</b>	+ 0.3 kg (relates to devices with male connector connection)
<b>Start up torque</b>	0.6 Ncm (+20 °C)
<b>Operating torque</b>	0.4 Ncm (+20 °C)
<b>Permissible shaft movement, axial static/dynamic</b>	± 0.5 mm / ± 0.2 mm
<b>Permissible shaft movement, radial static/dynamic</b>	± 0.3 mm / ± 0.1 mm

<b>Operating speed</b>	3,000 U/min
<b>Bearing lifetime</b>	3.6 x 10 <sup>9</sup> revolutions

Ambient data

<b>EMC</b>	EN 61000-6-2 EN 61000-6-3
<b>Enclosure rating</b>	IEC 60529
<b>Operating temperature range</b>	-20 °C ... +85 °C
<b>Storage temperature range</b>	-40 °C ... +100 °C, without package
<b>Resistance to shocks</b>	50 g, 11 ms (EN 60068-2-27)
<b>Resistance to vibration</b>	20 g, 10 Hz ... 2,000 Hz (EN 60068-2-6)
<b>Air humidity</b>	90 % <sup>1)</sup>

<sup>1)</sup> Condensation of the optical scanning not permitted.

Classifications

<b>ECl@ss 5.0</b>	27270501
<b>ECl@ss 5.1.4</b>	27270501
<b>ECl@ss 6.0</b>	27270590
<b>ECl@ss 6.2</b>	27270590
<b>ECl@ss 7.0</b>	27270501
<b>ECl@ss 8.0</b>	27270501
<b>ECl@ss 8.1</b>	27270501
<b>ECl@ss 9.0</b>	27270501
<b>ETIM 5.0</b>	EC001486
<b>ETIM 6.0</b>	EC001486
<b>UNSPSC 16.0901</b>	41112113

## 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](http://www.sick.com)