



Incremental encoders DGS60

DGS60-A1A01024



Model Name > [DGS60-A1A01024](#)
Part No. > [1032280](#)



At a glance

- Increased machine availability due to robust, reliable design
- Precise determination of position and speed due to high resolution of up to 65,536 lines
- Perfect adaptation to application-specific requirements due to large number of variants
- Small type encoders allow compact system design
- Reduced time and costs due to standardization by means of programming function i.e. fewer part numbers, less warehouse stock and minimization of downtime

Your benefits

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Note: The product has been phased out on 12/31/2011. A replacement product can be found under "Replacement Products".



Performance

Error limits:	0.098 °
Measuring step deviation:	0.044 °
Measuring step:	90 °, electronically/number of lines
Pulses per revolution:	1,024

Mechanical data

Mechanical interface:	Solid shaft, Servo flange
Shaft diameter:	6 mm x 10 mm
Mass:	0.3 kg (for an encoder with connector outlet)
Moment of inertia of the rotor:	13 gcm ²
Bearing lifetime:	3.6 x 10 ¹⁰ revolutions

Max. angular acceleration:	5 x 10 ⁵ rad/s ²
Start up torque with shaft seal:	1.5 Ncm (20 °C)
Start up torque without shaft seal:	0.2 Ncm (20 °C)
Operating torque with shaft seal:	1 Ncm (20 °C)
Operating torque without shaft seal:	0.1 Ncm (20 °C)
Permissible shaft loading radial/axial:	20 N, 10 N
Maximum operating speed without shaft seal:	10,000 U/min ¹⁾
Maximum operating speed with shaft seal:	6,000 U/min

¹⁾ At speeds > 600 rpm the shaft seal must be removed

Electrical data

Electrical interface:	4 V ... 6 V, TTL/RS422, Connector, M23, 12-pin, radial
Connection type:	Connector, M23, 12-pin, radial
Operating power consumption (no load):	120 mA
Supply voltage:	4 V ... 6 V
Load current:	20
Maximum output frequency:	600 kHz
Reference signal, number:	1
Reference signal, position:	90 °, electronically, gated with A and B

Ambient data

EMC:	EN 61000-6-2, EN 61000-6-3
Protection class housing side with connector outlet:	IP 65 ¹⁾
Protection class housing side with cable outlet:	IP 67
Protection class shaft side:	IP 65
Protection class standard:	IEC 60529
Air humidity:	90 % ²⁾
Working temperature range:	-20 °C ... 85 °C
Storage temperature range:	-30 °C ... 85 °C
Resistance to shocks:	30 g, 11 ms (EN 60068-2-27)
Resistance to vibration:	20, 10 ... 2,000 (EN 60068-2-6)

¹⁾ With mating connector fitted ²⁾ Condensation of the optical scanning not permitted

Australia

Phone +61 3 9497 4100
1800 334 802 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail sac@sick.com.br

Canada

Phone +1(952) 941-6780
1 800-325-7425 – tollfree
E-Mail info@sickusa.com

Ceská Republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +852-2763 6966
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail kundenservice@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-999-0590
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 3358 1341
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederlands

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail austefjord@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7 495 775 05 30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail admin@sicksgp.com.sg

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82-2 786 6321/4
E-Mail info@sickkorea.net

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886 2 2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 216 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 4 8865 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 800-325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com