


ONLINE DATA SHEET
www.mysick.com

# Absolute encoders
# ARS60 SSI/Parallel

ARS60-F1T32767



SICK
Sensor Intelligence.

SICK
Sensor Intelligence.

# Absolute encoders
# ARS60 SSI/Parallel

**Model Name** > ARS60-F1T32767
**Part No.** > 1031633





*Illustration may differ*

### At a glance

- Absolute singleturn encoder
- Resolution: up to 15 bits (32,768 increments)
- Electrical interface: SSI with gray code type or gray capped
- Electrical interface: Parallel with gray, gray capped, binary, BCD code type
- Zero-set function
- Mechanical interfaces: face mount flange, servo flange, blind and through hollow shaft
- Enclosure rating: Up to IP66

### Your benefits

- Optical and magnetic variants for the widest range of requirements
- Reduced maintenance costs thanks to magnetic, wearless scanning in single and multiturn design
- High level of productivity due to optical encoders with a high level of precision and fast calculation of positions
- Robust design for maximum system availability, even in extreme environmental conditions
- Absolutely compact - specially suited in cases where installation space is tight
- Flexible integration in all common networks

## Performance

| | |
|---|---|
| Max. number of steps per revolution: | 32,767 |
| Max. number of revolutions: | 1 |
| Resolution power: | 32,767 x 1 |
| Error limits: | 0.035 ° (binary number of steps)<br>0.046 ° (non-binary number of steps) |
| Repeatability (Ta not constant): | 0.005 ° |
| Measuring step deviation: | 0.005 °, 0.016 ° |
| Measuring step: | 360 ° /number of lines |
| Initialization time: | 80 ms [1)] |

[1)] Valid positional data can be read once this time has elapsed

## Mechanical data

| | |
|---|---|
| Mechanical interface: | Solid shaft, Servo flange |
| Shaft diameter: | 6 mm |
| Start up torque: | 0.25 Ncm |


© SICK AG. Subject to change without notice.

| | |
|---|---|
| Operating torque: | 0.2 Ncm |
| Permissible Load capacity of shaft: | 10 N (axial), 20 N (radial) |
| Maximum operating speed: | 10,000 /min (without shaft seal), 6,000 /min (with shaft seal) [1] |
| Moment of inertia of the rotor: | 48 gcm² |
| Bearing lifetime: | 3.6 x 10^9 revolutions |
| Max. angular acceleration: | 500,000 rad/s² |
| Operation of zero-set: | ≥ 100 ms [2] |

[1] If the shaft seal has been removed by the customer [2] Only with shaft stationary (note initialisation time)

## Electrical data

| | |
|---|---|
| Operating voltage range: | 10 V DC ... 32 V DC |
| Operating power consumption (no load): | 90 mA |
| MTTFd: mean time to dangerous failure: | 300 a (EN ISO 13849-1) [1] |

[1] 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.

## Interfaces

| | |
|---|---|
| Electrical interface: | Cable, 22-pin, axial, 5 m |

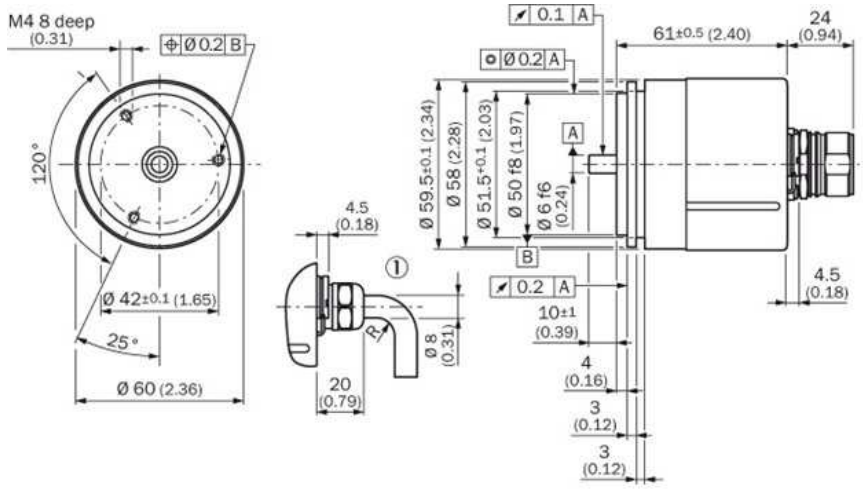
## Ambient data

| | |
|---|---|
| EMC: | (according to EN 61000-6-2 and EN 61000-6-3) [1] |
| Enclosure rating: | IP 66 (according to IEC 60529) |
| Permissible relative humidity: | 90 % (condensation of the optical scanning not permitted) |
| Working temperature range: | -20 °C ... 85 °C |
| Storage temperature range: | -40 °C ... 100 °C |
| Resistance to shocks: | 50 g (according to EN 60068-2-27) |
| Resistance to vibration: | 20 g, 10 Hz ... 2,000 Hz (according to EN 60068-2-6) |

[1]


© SICK AG. Subject to change without notice.

## Dimensional drawing





© SICK AG. Subject to change without notice.

A4 4c int43

**Australia**
Phone +61 3 9457 0600
1800 33 48 02 – 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 marketing@sick.com.br

**Canada**
Phone +1 905 771 14 44
E-Mail information@sick.com

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

**China**
Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
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 info@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 +972-4-6881000
E-Mail info@sick-sensors.com

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

**Japan**
Phone +81 (0)3 5309 2112
E-Mail support@sick.jp

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

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

**Norge**
Phone +47 67 81 50 00
E-Mail sick@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 sales.gsg@sick.com

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

**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

**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 (0) 4 88 65 878
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**



SICK
Sensor Intelligence.