



**Absolute encoders  
ARS60 SSI/Parallel**

ARS60-FAK04096



**Model Name** > [ARS60-FAK04096](#)  
**Part No.** > [1031607](#)



*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:	4,096
Max. number of revolutions:	1
Resolution power:	4,096 x 1
Error limits:	0.035 ° (binary number of steps) 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 <sup>1)</sup>

<sup>1)</sup> Valid positional data can be read once this time has elapsed

**Mechanical data**

Mechanical interface: Blind hollow shaft

Shaft diameter:	6 mm 8 mm 10 mm 12 mm 14 mm 15 mm 1/4 " 3/8 " <sup>1)</sup> 1/2 " <sup>1)</sup>
Start up torque:	0.6 Ncm
Operating torque:	0.4 Ncm
Maximum operating speed:	3,000 /min
Bearing lifetime:	3.6 x 10 <sup>9</sup> revolutions
Max. angular acceleration:	500,000 rad/s <sup>2</sup>
Permissible movement axial static/dynamic:	± 0.5 mm, ± 0.2 mm
Permissible movement radial static/dynamic:	± 0.3 mm, ± 0.1 mm
Operation of zero-set:	≥ 100 ms <sup>2)</sup>

<sup>1)</sup> Collets for 6, 8, 10, 12, 14 mm and 1/4 ", 3/8 " and 1/2 " as accessories, separate order item. For 15 mm shaft diameter collet is not needed. <sup>2)</sup> Only with shaft stationary (note initialisation time)

### Electrical data

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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) <sup>1)</sup>

<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.

### Interfaces

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Electrical interface:	Cable, 22-pin, radial, 1.5 m
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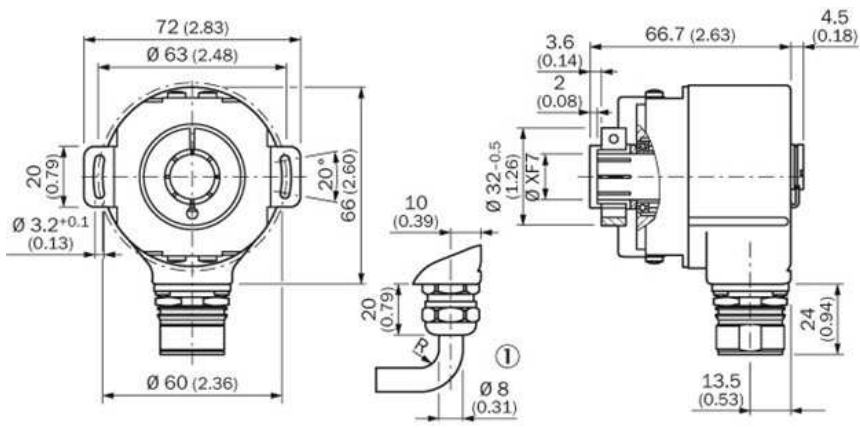
### Ambient data

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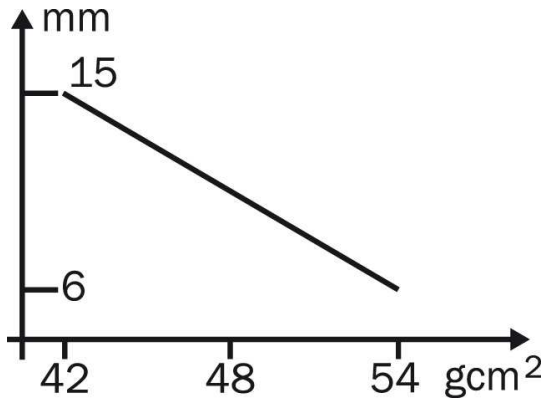
EMC:	(according to EN 61000-6-2 and EN 61000-6-3) <sup>1)</sup>
Enclosure rating:	IP 66 (according to IEC 60529)
Permissible relative humidity:	90 % (condensation of the optical scanning not permitted)
Working temperature range:	-20 °C ... 85 °C
Storage temperature range:	-40 °C ... 100 °C
Resistance 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)

<sup>1)</sup>

**Dimensional drawing**



**Drehzahlbetrachtung**



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