

ARS60-FAM16384







# Absolute encoders ARS60 SSI/Parallel

Model Name > ARS60-FAM16384

Part No. > 1035360





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: 16,384
Max. number of revolutions: 1

Resolution power: 16,384 x 1

Error limits: 0.035  $^{\circ}$  (binary number of steps) 0.046  $^{\circ}$  (non-binary number of steps)

Repeatability (Ta not constant): 0.005 °

Measuring step deviation:  $0.005\,^{\circ},\,0.016\,^{\circ}$  Measuring step:  $360\,^{\circ}$  /number of lines

Initialization time: 80 ms

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

|     | _    |       | _    |
|-----|------|-------|------|
| Med | :han | nical | data |

Mechanical interface: Blind hollow shaft

Shaft diameter: 6 mm

8 mm 10 mm 12 mm 14 mm 15 mm 1/4 " 3/8 " 1)

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/s²
Permissible movement axial static/dynamic:  $\pm$  0.5 mm,  $\pm$  0.2 mm
Permissible movement radial static/dynamic:  $\pm$  0.3 mm,  $\pm$  0.1 mm

Operation of zero-set: ≥ 100 ms<sup>2)</sup>

#### **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)

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, radial, 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)

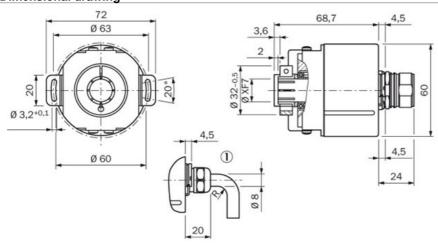
Resistance to vibration: 20 g, 10 Hz ... 2,000 Hz (according to EN 60068-2-6)

1)

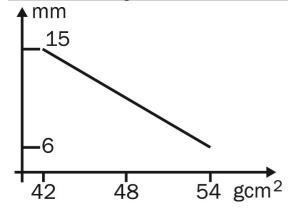
<sup>1)</sup> Collets for 6, 8, 10, 12, 14 mm and 1/4 ", 3/8 " and 1/2 " as accessories, separate order item. For 15 mm shaft diameter collet is not needed. 2) Only with shaft stationary (note initialisation time)

<sup>1)</sup> This product is a standard product and does not constitute a

## **Dimensional drawing**



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