

ONLINE DATA SHEET
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Absolute encoders
ARS60 SSI/Parallel

ARS60-A4L08192



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Absolute encoders
ARS60 SSI/Parallel

Model Name > ARS60-A4L08192
Part No. > 1031450





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

- Freely programmable resolution (up to 15 bits)
- Simple zero adjustment directly by press of a button on the encoder or via signal line (cable version)
- Suitable for all mounting methods thanks to individual mechanical interfaces
- A basic device for flexible use thanks to simple interchangeable collets for blind hollow shaft and through hollow shaft
- Versions with cable and M23 connector outlet available in axial and radial designs

Performance

Max. number of steps per revolution:	8,192
Max. number of revolutions:	1
Resolution power:	8,192 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 [1)]

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

Mechanical data

Mechanical interface:	Solid shaft, Face mount flange
Shaft diameter:	10 mm
Start up torque:	0.4 Ncm
Operating torque:	0.3 Ncm

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Permissible Load capacity of shaft:	20 N (radial) 10 N (axial)
Maximum operating speed:	10,000 /min (without shaft seal) 6,000 /min (with shaft seal) [1]
Moment of inertia of the rotor:	54 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):	60 mA

Interfaces

Electrical interface:	Cable, 11-pin, radial, 3 m

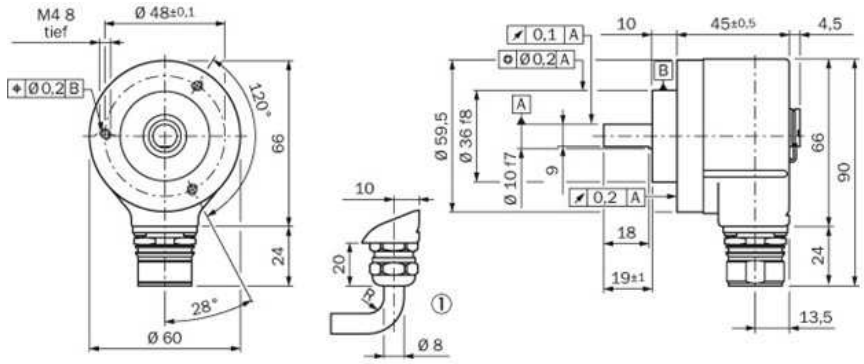
Ambient data

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)

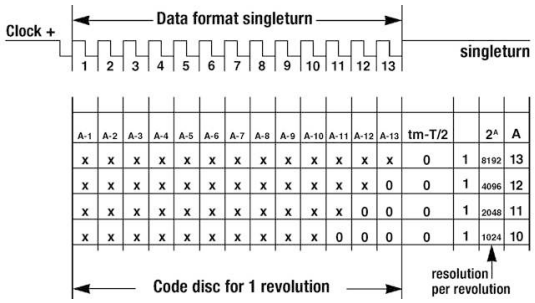
[1]

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Dimensional drawing



PSDI



A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10	A-11	A-12	A-13	tm-T/2		2^A	A
x	x	x	x	x	x	x	x	x	x	x	x	x	0	1	8192	13
x	x	x	x	x	x	x	x	x	x	x	x	0	0	1	4096	12
x	x	x	x	x	x	x	x	x	x	x	0	0	0	1	2048	11
x	x	x	x	x	x	x	x	x	x	0	0	0	0	1	1024	10

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