



Absolute encoders ARS60 SSI/Parallel

ARS60-J4B00100



Model Name > ARS60-J4B00100
Part No. > 1030139



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:	100
Max. number of revolutions:	1
Resolution power:	100 x 1
Error limits:	0.035 ° (binary number of steps) 0.046 ° (non-binary number of steps)
Repeat accuracy:	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
Mass:	0.3 kg
Start up torque:	0.4 Ncm
Operating torque:	0.3 Ncm

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 gcm ²
Bearing lifetime:	3.6 x 10 ⁹ revolutions
Max. angular acceleration:	500,000 rad/s ²
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

Interfaces

Electrical interface:	Connector M23, 21-pin, axial
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Ambient data

EMC:	According to EN 61000-6-2 and EN 61000-6-3 ¹⁾
Enclosure rating:	IP 65, according to IEC 60529, with mating connector fitted
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⁾

P/N	Farbe der Adern bei Leitungsabgang	Blinder	Gray	BCD	Erklärung
1	Violett	2 ^{er}	G ₈	2 ^{er} x 10 ^{er}	
2	Weiß/braun	2 ^{er}	G ₉	2 ^{er} x 10 ^{er}	
3	Weiß/grün	2 ^{er}	G ₆	2 ^{er} x 10 ^{er}	
4	Weiß/gelb	2 ^{er}	G ₅	2 ^{er} x 10 ^{er}	
5	Weiß/grau	2 ^{er}	G ₄	2 ^{er} x 10 ^{er}	
6	Weiß/rosa	2 ^{er}	G ₃	2 ^{er} x 10 ^{er}	
7	Weiß/blau	2 ^{er}	G ₂	2 ^{er} x 10 ^{er}	
8	Weiß/rot	2 ^{er}	G ₁	2 ^{er} x 10 ^{er}	
9	Weiß/schwarz	2 ^{er}	G ₀	2 ^{er} x 10 ^{er}	
10	Braun/grün	2 ^{er}	G ₈	2 ^{er} x 10 ^{er}	
11	Braun/gelb	2 ^{er}	G ₉	2 ^{er} x 10 ^{er}	
12	Braun/grau	2 ^{er}	G ₆	2 ^{er} x 10 ^{er}	Datenleitungen, Ausgänge
13	Braun/rosa	2 ^{er}	G ₅	2 ^{er} x 10 ^{er}	
14	Braun/blau	2 ^{er}	G ₄	2 ^{er} x 10 ^{er}	
15	Braun/rot	2 ^{er}	G ₃	2 ^{er} x 10 ^{er}	
16	Grün	Parity	Parity	Parity	
17	Rosa	Stone	Stone	Stone	
18	Gelb	Enable	Enable	Enable	
19	Braun	V/R	V/R	V/R	
20	Grau	SET	SET	SET	
21	Blau	GND	GND	GND	
22	Rot	U ₁	U ₁	U ₁	
Gehäuse		Schirm	Schirm	Schirm	



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