Series AWI 90 Redundant

- Incremental rotary-encoder with a solid shaft diameter of 12 mm
- Housing diameter 90 mm, robust design and high degree of protection
- Maximum 5,000 pulses / revolution
- For highest industrial requirements
- Redundant version (two completely separate, optical and electronic systems in one housing)
- Also available in stainless steel for aggressive environmental conditions
- Accessories from page 78

**Electrical specifications**

- Max. step frequency: 100 kHz
- Perm. temperature range: -30°...+70° C
- Power supply: 10 V...30 V DC
- Max. current consumption: 80 mA (without load)
- Max. output load: 30 mA (per channel)
- Residual ripple: max. ± 5% UB
- Power supply: 5 V DC ± 5%
- Max. current consumption: 80 mA

150 mA for Line Driver 75114 or sim.

**Mechanical specifications**

- Flange: Aluminium
- Housing: Powder-coated sheet steel
- Shaft: Stainless steel
- Shaft seal: Oil/salt-water resistant
- Bearing: Deep groove ball bearing
- Weight: approx 1.2 kg
- Protection type: IP 65
- Max. speed: 6,000 U/min
- Torque: approx 5 Ncm
- Max. shaft load:
  - Axial: 30 N
  - Radial: 50 N

**Mechanical dimensions**

* Tolerance = h 6

All specification in millimeters
Incremental Rotary Encoder Series AWI 90 Redundant

Output circuits

Signal outputs

A Two square pulse trains offset by 90° el, with channel A lagging in clockwise rotation.
B Reference pulse 0 once per revolution, RS 422 position and length optional, linked for RS 422.

All channels can also be executed inversely.

Pin configuration

Order reference

AWI 90

Order ref.: 0 1 2 3 6

AWI 90 – 1 2 – –

Housing Shaft Signal output Connection position/Connection type Output circuit Output circuit

S = Standard 12 = 12 mm 1 = A Standard 0 = NPN
E = Stainless steel 3 = A, 0 2 = Push-pull 30 mA
V = Variabel 4 = A, A 3 = TTL Line Driver 75114 o.Ä.
R = Redundant 5 = A, B / A- , B- 4 = RS 422

Number of pulses on request Number of pulses on request

0 = NPN 1 = Push-pull 30 mA
1 = TTL Line Driver 75114 o.Ä. 2 = TTL
3 = TTL 6 = RS 422
6 = A, B, 0 / A- , B- , 0- 7 = UB 24 V DC-Ausg. 5 V TTL
7 = UB 24 V DC-Ausg. RS 422
8 = UB 24 V DC-Ausg. RS 422
9 = A, B, 0, 0-