

# **Data Sheet**



Safety-Rated AG7W Encoder **Functional Safety for AC Motors** DR.71-225, 315

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### **Data Sheet**

Characteristic safety values for AG7W encoders

## 1 Data Sheet



#### **INFORMATION**

This data sheet does not replace the following applicable documents:

- "DR.71-225, 315 AC Motors" operating instructions
- "Safety-Rated Encoders Functional Safety for AC Motors DR.71-225, 315" addendum to the operating instructions

## 1.1 Characteristic safety values for AG7W encoders

The following table shows the characteristic safety values of the safety-rated AG7W encoders:

Characteristic safety values for AG7W	
	Sine/cosine interface
Safety class / standard	SIL 2 according to IEC 61508 PL d / cat. 3 according to EN ISO 13849-1
Probability of dangerous failure (PFH <sub>d</sub> ) <sup>1) 2)</sup>	6.4 × 10 <sup>-9</sup> 1/h
Service life / proof test interval (PT)	20 years
Safety functions that can be implemented	SS1, SS2, SOS, SLA, SAR, SLS, SLI, SDI according to 61800-5-2

- 1) For a mean maximum ambient temperature of 40 °C.
- 2) The specified value is based on a diagnostic coverage of 90% that must be achieved with an external encoder evaluation unit. For corresponding error presumptions, refer to the EN 61800-5-2 standard. The encoder evaluation unit must meet at least the requirements for SIL 2.

