

# Certificate



**No.: 968/FSP 1298.01/21**

<b>Product tested</b>	Electronic Vibration Monitoring Sensor	<b>Certificate holder</b>	Holthausen Elektronik GmbH Wevelinghoven 38 41334 Nettetal Germany
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<b>Type designation</b>	ESW®-small-Transmitter 10-**-SIL, ESW®-small-Transmitter M 10-**-SIL, ESW®-small-Transmitter Ex-d M 10-**-SIL, ESW®-small-Transmitter Ex-i M 10-**-SIL, ESW®-small-Transmitter Ex-d 10-**-SIL, ESW®-small-Transmitter Ex-i 10-**-SIL
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<b>Codes and standards</b>	EN 61508 Parts 1-2 and 4-7:2010
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<b>Intended application</b>	The ESW Small Transmitter is used to monitor vibrations of rotating components. The sensor converts mechanical oscillations into a proportional output current signal of 4 to 20mA. In combination with a suitable external safety controller it can be used in a safety-related system in HFT=0 configuration up to SIL 2.
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<b>Specific requirements</b>	The safety manual, user manual and the datasheets shall be considered.  Output currents <3.8mA and >22mA have to be considered by the safety controller as a failure condition and the safe state has to be issued. It is highly recommended to treat a 4mA output signal within the external safety controller during normal operation of the machine as a failure condition and to initiate the safe state. During normal operation of the machine it can be expected, that mechanical vibration exists and an output signal >4mA can be expected.
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Valid until 2026-09-22

The issue of this certificate is based upon an examination, whose results are documented in Report No. 968/FSP 1298.01/21 dated 2021-09-21.

This certificate is valid only for products which are identical with the product tested.

**TÜV Rheinland Industrie Service GmbH**  
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Köln, 2021-09-22

Certification Body Safety & Security for Automation & Grid

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