

Manufacturer's Declaration



Company **Endress+Hauser Conducta GmbH+Co. KG**
Dieselstrasse 24, 70839 Gerlingen, Germany

declares as manufacturer of analytical products that the

Product **CYK10-Gxx*** **xx = 90, 91**

Regulations has been evaluated under requirements of functional safety according to IEC 61508 Edition 2.
IEC 61508-1:2010
IEC 61508-2:2010
IEC 61508-3:2010
IEC 61508-4:2010
IEC 61010-1:2010
EN 60529:2010

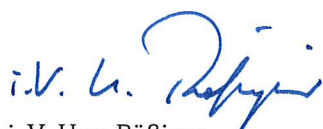
The initial certification process has been done by TÜV SÜD according to IEC 61508 Edition 1 and is documented in test report EG83498T and certified on April 29th, 2011.

Parameters

Safety function	Safe transmission of data
Hardware SIL	2
Systematic Software SIL	3
HFT	0
Device type	B
Mode of operation	Low demand mode
Safe failure fraction SFF	90.4 %
MTTR	8 h
Proof test interval T1	1 year, strongly dependent on application!
$\lambda_{SD} / \lambda_{SU}$	0 FIT / 47 FIT
$\lambda_{DD} / \lambda_{DU}$	147 FIT / 20 FIT
$PFD_{avg} \quad T1 = 1 \text{ years}$	0.9×10^{-4}
MTBF	531 years (reciprocal of λ_{total} , assuming constant failure rate)
$MTBF_{DU}$	5564 years (reciprocal of λ_{DU} , assuming constant failure rate)

The device was assessed independently in a complete Functional Safety Assessment. All values shown above have been calculated at an electronics temperature of 60 °C. In the event of device modifications, a modification process compliant with IEC 61508 is applied.

Gerlingen, 03.12.2018


i. V. Uwe Rößiger
Manager Certifications and Approvals


i. A. Florian Fetz
Manager Functional Safety