



SIL DECLARATION OF CONFORMITY

Manufacturer: ABB Automation Products GmbH
Address: Borsigstraße 2 – D-63755 Alzenau
Product name: Thermal Mass Flow Meter FMT500-iG, 4..20 mA HART

Functional safety according to IEC 61508 / IEC 61511

We as the manufacturer declare that the a.m. products are suitable for the use in a safety related application up to SIL 1 according to IEC 61511-1 and IEC 61508-2 Edition 2000 (Hardware assessment with FMEDA), provided that the attached safety instructions are observed.

The assessment of the safety critical and dangerous random errors results, in case of an annual yearly function test, in the following parameters:

Software revision: 1.86 and 1.87

Hardware revision: 1.00

HFT (Hardware failure tolerance): 0

SIL (Safety integrity level):

1 (see Table)

Type: B

Transmitter Type	Measuring Range	SIL-Level	SFF	PFDav	λ_{dd}	λ_{sd}
					λ_{du}	λ_{su}
FMT500-iG, 4..20mA, HART 24 V,Standard, Compactversion	acc. Datasheet	1	76 %	$4,20 \cdot 10^{-3}$	2563 FIT 963 FIT	0 FIT 611 FIT
FMT500-iG, 4..20mA, HART 230 V,Standard, Compactversion	acc. Datasheet	1	76 %	$4,20 \cdot 10^{-3}$	2558 FIT 963 FIT	0 FIT 606 FIT
FMT500-iG, 4..20mA, HART 24 V,Standard, Remoteversion	acc. Datasheet	1	76 %	$4,49 \cdot 10^{-3}$	2560 FIT 1029 FIT	0 FIT 724 FIT

Transmitter Type	Measuring Range	SIL-Level	SFF	PFDav	λ_{dd} λ_{du}	λ_{sd} λ_{su}
FMT500-iG, 4..20mA, HART 230 V,Standard, Remoteversion	acc. Datasheet	1	76 %	$4,49 * 10^{-3}$	2556 FIT 1029 FIT	0 FIT 720 FIT
FMT500-iG, 4..20mA, HART 24 V, Ex, Compactversion	acc. Datasheet	1	81 %	$3,57 * 10^{-3}$	2743 FIT 817 FIT	0 FIT 878 FIT
FMT500-iG, 4..20mA, HART 230 V,Ex Compactversion	acc. Datasheet	1	81 %	$3,57 * 10^{-3}$	2738 FIT 817 FIT	0 FIT 873 FIT
FMT500-iG, 4..20mA, HART 24 V,Ex, Remoteversion	acc. Datasheet	1	80 %	$3,85 * 10^{-3}$	2741 FIT 883 FIT	0 FIT 991 FIT
FMT500-iG, 4..20mA, HART 230 V,Ex, Remoteversion	acc. Datasheet	1	80 %	$3,85 * 10^{-4}$	2736 FIT 883 FIT	0 FIT 987 FIT

*) Remark 1 FIT = $1 * 10^{-9}$, Ex for ATEX, FM,CSA and GOST, ordering code CS

22.07.2009

Date

i.v. R. Laurinat
i.V. Reiner Laurinat
Head of Quality Management

i.A. H. Müller
i.A. Harald Müller
Head of Hardware Development