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SIL Declaration of Conformity Functional safety according to IEC 61508 and 61511

We _____
Mettler-Toledo GmbH, Process Analytics
Im Hackacker 15
8902 Urdorf
Switzerland Schweiz

declare under our sole responsibility that the product

Description _____ GPro 500 Gas Analyzers Series
Smart Key _____ GPRO500***** _/_A

We as manufacturer declare that the above gas analyzer series GPro500 are suitable for use in safety instrumented systems according to IEC 61508 and IEC 61511. The primary function of the GPro500 is the measurement of the concentration of the target gas for a safety instrumented function of Safety Integrity Level (SIL) 2. The appropriate safety instructions according to the operating instructions manual GPro500. The software Product revisions will be carried out by the manufacturer in accordance with IEC 61508.

The software version (V7.X) encodes with "X" special modifications for each gas type and mechanical construction which has no influence on the safety function and detection capability. The failure rate calculations were carried out by EXIDA and calculated via an FMEDA according to IEC 61508.

	Failure rates (in FIT)
Fail safe detected (λ_{SD})	0
Fail Safe Undetected (λ_{SU})	0
Fail Dangerous Detected (λ_{DD})	2820
Fail Dangerous Undetected (λ_{DU})	292
Total Failure Rate (safety function)	3112
Safe Failure Function (SFF)	90%
SIL AC	SIL2

Mettler-Toledo GmbH, Process Analytics



Jean-Nicolas Adami
SPG Gas Leader



Peter Rowing
Head of Quality Management

Place and Date of issue _____ Urdorf, 19.12.2022

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