

Norm	Aktuell freigegebenen und anwendbaren Normausgabeständen	Methode	Prüfanweisung (falls vorhanden)	Datum der internen Freigabe:
Funktionale Sicherheit Anlage D-PL-17438-01-04 (akkreditiert sind die im folgenden genannten Prüfverfahren, die auf den weiter unten aufgelisteten Prüfverfahren basieren)				
		Verfahrensanweisung - Prüfung der funktionalen Sicherheit	Q-PB-25-FuSi Prüfung der funktionalen Sicherheit_Rev.01	16.11.2021
		FMEDA	Q-PB-25 Prüfung der funktionalen Sicherheit-FMEDA_Rev.00	22.11.2021
Die Prüfungen der aufgelisteten Prüfverfahren für die funktionale Sicherheit basieren auf den im Folgenden genannten Normen				
IEC 61508-1	2010	Functional safety of electrical/electronic/programmable electro-nic safety-related systems - Part 1: General requirements		
IEC 61508-2	2010	Functional safety of electrical/electronic/programmable electro-nic safety-related systems - Part 2: Requirements for electrical/electronic/programmable electronic safety-related systems		
IEC 61508-3	2010	Functional safety of electrical/electronic/programmable electro-nic safety-related systems - Part 3: Software requirements		
IEC 62061	2005 + A1:2012 + A2:2015	Safety of machinery - Functional safety of safety-related electrical, electronic and programmable electronic control systems		
IEC 61508-3-1	2010	Functional safety of electrical/electronic/programmable electronic safety-related systems - Software requirements – Reuse of pre-existing software elements to implement all or part of a safety function		
ISO 13849-1	2015	Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design		
ISO 13849-2	2012	Safety of machinery - Safety-related parts of control systems - Part 2: Validation		
ISO 22737	2021	Intelligent transport systems – Low-speed automated driving (LSAD) systems for predefined routes – Performance requirements, system requirements and performance test procedures		
ISO 25119-1	2010	Tractors and machinery for agriculture and forestry - Safety-related parts of control systems - Part 1: General principles for design and development		
ISO 25119-2	2010	Tractors and machinery for agriculture and forestry - Safety-related parts of control systems - Part 2: Concept phase		
ISO 25119-3	2010	Tractors and machinery for agriculture and forestry - Safety-related parts of control systems - Part 3: Series development, hardware and software		
ISO 25119-4	2010	Tractors and machinery for agriculture and forestry - Safety-related parts of control systems - Part 4: Production, operation, modification and supporting processes		
ISO 26262-1	2011	Road vehicles - Functional safety - Part 1: Vocabulary		
ISO 26262-2	2011	Road vehicles - Functional safety - Part 2: Management of functional safety		
ISO 26262-3	2011	Road vehicles - Functional safety - Part 3: Concept phase		
ISO 26262-4	2011	Road vehicles - Functional safety - Part 4: Product development at the system level		
ISO 26262-5	2011	Road vehicles - Functional safety - Part 5: Product development at the hardware level		
ISO 26262-6	2011	Road vehicles - Functional safety - Part 6: Product development at the software level		
ISO 26262-7	2011	Road vehicles - Functional safety - Part 7: Production and operation		
ISO 26262-8	2011	Road vehicles - Functional safety - Part 8: Supporting processes		
ISO 26262-9	2011	Road vehicles - Functional safety - Part 9: Automotive Safety Integrity Level (ASIL)-oriented and safety-oriented analyses		
ISO 26262-1	2018	Road vehicles - Functional safety - Part 1: Vocabulary		

ISO 26262-2	2018	Road vehicles - Functional safety - Part 2: Management of functional safety		
ISO 26262-3	2018	Road vehicles - Functional safety - Part 3: Concept phase		
ISO 26262-4	2018	Road vehicles - Functional safety - Part 4: Product development at the system level		
ISO 26262-5	2018	Road vehicles - Functional safety - Part 5: Product development at the hardware level		
ISO 26262-6	2018	Road vehicles - Functional safety - Part 6: Product development at the software level		
ISO 26262-7	2018	Road vehicles - Functional safety - Part 7: Production and operation		
ISO 26262-8	2018	Road vehicles - Functional safety - Part 8: Supporting processes		
ISO 26262-9	2018	Road vehicles - Functional safety - Part 9: Automotive Safety Integrity Level (ASIL)-oriented and safety-oriented analyses		
ISO 26262-11	2018	Road vehicles - Functional safety - Part 11: Guidelines on application of ISO 26262 to semiconductors		
ISO 26262-12	2018	Road vehicles - Functional safety - Part 12: Adaptation of ISO 26262 for motorcycles		
IEC 61784-3	2016	Industrial communication networks - Profiles - Part 3: Functional safety fieldbuses - General rules and profile definitions		
IEC 61784-3	2021	Industrial communication networks - Profiles - Part 3: Functional safety fieldbuses - General rules and profile definitions		
EN 50128	2011	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems		
EN 50129	2003-02 + COR 2010-05	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling		
EN 50159	2018	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling		
EN 50159	2010-09	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling		
IEC 61511-1	2016	Functional safety - Safety instrumented systems for the process industry sector - Part 1: Framework, definitions, system, hardware and application programming requirements		
IEC 61511-2	2016	Functional safety - Safety instrumented systems for the process industry sector - Part 2: Guidelines for the application of IEC 61511-1:2016		
IEC 61511-3	2016	Functional safety - Safety instrumented systems for the process industry sector - Part 3: Guidance for the determination of the required safety integrity levels		
ISO 19014-1	2018	Earth moving machinery – functional safety		
EN 12321	A1 2009-04	Underground mining machinery - Specification for the safety requirements of armoured face conveyors		
ISO 13850	2015	Safety of machinery - Emergency stop function - Principles for design		
ISO 10218-1	2011	Robots and robotic devices - Safety requirements for industrial robots - Part 1: Robots		
ISO 10218-2	2011	Robots and robotic devices - Safety requirements for industrial robots - Part 2: Robot systems and integration		
ISO 11161	2007 + A1:2010	Safety of machinery - Integrated manufacturing systems - Basic requirements		
ISO 11553-1	2005	Safety of machinery - Laser processing machines - Part 1: General safety requirements		
IEC 61496-1	2012 + Cor.:2015	Safety of machinery - Electro-sensitive protective equipment - Part 1: General requirements and tests		
IEC 61496-2	2013	Safety of machinery - Electro-sensitive protective equipment - Part 2: Particular requirements for equipment using active opto-electronic protective devices (AOPDs)		
IEC 60947-5-3	2013	Low-voltage switchgear and controlgear - Part 5-3: Control circuit devices and switching elements - Requirements for proximity devices with defined behaviour under fault conditions (PDDb)		
IEC 61131-6	2012	Programmable controllers - Part 6: Functional safety		
EN 50402	2005-08 + A1:2008-05	Electrical apparatus for the detection and measurement of combustible or toxic gases or vapours or of oxygen - Requirements on the functional safety of gas detection systems		

EN 50402	2017	Electrical apparatus for the detection and measurement of combustible or toxic gases or vapours or of oxygen - Requirements on the functional safety of gas detection systems		
IEC 61800-5-2	2016	Adjustable speed electrical power drive systems - Part 5-2: Safety requirements - Functional		
IEC 61800-5-3	2021	Adjustable speed electrical power drive systems – Part 5-3: Safety requirements – Functional, electrical and environmental requirements for encoders		
EN 50657	2017	Railways Applications - Rolling stock applications - Software on Board Rolling Stock		
ISO/PAS 21448	2019	Road vehicles — Safety of the intended functionality		
ISO/TR 4804		Road vehicles – Safety and cybersecurity for automated driving systems – Design, verification and validation		