

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-IS-18630-01-00 according to DIN EN ISO/IEC 17020:2012

Period of validity: 26.03.2015 to 19.03.2020

Date of issue: 26.03.2015

Holder of certificate:

ipw Ingenieurgesellschaft Prof. Dr.- Ing. Wiegand mbH & Co. KG
Inspektionsstelle
Breite Straße 25-26, 38100 Braunschweig

for its inspection body Type A

Inspections in the fields:

Signalling and safety systems for rail transport
and determination of compliance with specified requirements and – on the basis of expert
assessment – with general requirements

For the following technologies:

- Signalling and train safety systems
- Signal box technology
- Level crossing safety technology
- Train detection systems
- Automatic train control systems
- Train control systems / remote control systems
- Data transmission systems
- Operator station systems
- Train control and command equipment on vehicles

The following inspection areas are included in the scope of accreditation:

- Inspection of safety-related systems (hardware/software)
- Inspection of planning and project documents
- Inspection accompanying development
- Inspection of safety processes
- System inspection (acceptance testing)
- Inspection of safety certificates
- Inspection of design and execution plans

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Inspection methods:

ipw Process Description 202 (revision level: 2014-10)

ipw Work Instruction 01 (revision level 2014-10)

In conjunction with:

Technical field	Subject of inspection	Standard / in-house method / version	Title of standard or in-house method (specify deviations/modifications of standard methods if necessary)
Rail transport	Railway signalling and safety systems	DIN EN 50126 2000-03	Railway applications – The specification and demonstration of reliability, availability, maintainability, safety (RAMS)
	Railway signalling and safety systems	DIN EN 50128 03/2012-03	Railway applications – Communication, signalling and processing systems – Software for railway control and protection systems
	Railway signalling and safety systems	DIN EN 50129 12/2003	Railway applications – Communications, signalling and processing systems – Safety related electronic systems for signalling
	Railway signalling and safety systems	DIN EN 61508 02/2011	Functional safety of electrical/electronic/programmable electronic safety-related systems
	Signalling and safety systems for rail systems for light-rail transit within the meaning of § 4 PBefG (German Passenger Transportation Act)	BOStrab 12/1987	German Ordinance on the Construction and Operation of Rail Systems for Light-Rail Transit
	Signalling and safety systems for standard gauge railways	EBO 05/1967	German Ordinance on the Construction and Operation of Railways
	Signalling and safety systems for feeder lines	BOA 12/1955	German Ordinance on the Construction and Operation of Feeder Lines
	Signalling and safety systems for narrow gauge railways	ESBO 02/1972	German Ordinance on the Construction and Operation of Narrow Gauge Railways
	Railway signalling and safety systems (rail systems for light-rail transit)	VDV-Schrift 331 07/2008	Safety Integrity Requirements for Signalling and Train Control and Protection Systems in accordance with BOStrab

Technical field	Subject of inspection	Standard / in-house method / version	Title of standard or in-house method (specify deviations/modifications of standard methods if necessary)
	Railway signalling and safety systems (non-federal railways)	VDV-Schrift 332 07/2008	Safety Integrity Requirements For Railway Signalling Systems for Non-Federal Railways
	Railway signalling and safety systems (non-federal railways)	VDV-Schrift 334 11/2007	SIG RZA-NE Guideline for the Approval And Acceptance of Railway Signalling Systems for Non-Federal Railways (NE)

Abbreviations for the railway-specific terms used:

BOA	Verordnung über den Bau und Betrieb von Anschlussbahnen (German Ordinance on the Construction and Operation of Feeder Lines)
BOStrab	Straßenbahn- Bau- und Betriebsordnung (German Ordinance on the Construction and Operation of Rail Systems for Light-Rail Transit)
EBO	Eisenbahn- Bau- und Betriebsordnung (German Ordinance on the Construction and Operation of Railways)
ESBO	Eisenbahn- Bau- und Betriebsordnung für Schmalspurbahnen (German Ordinance on the Construction and Operation of Narrow Gauge Railways)
NE	Nichtbundeseigene Eisenbahnen (Non-Federal Railways)
PBefG	Personenbeförderungsgesetz (German Passenger Transportation Act)
VDV	Verband Deutscher Verkehrsunternehmen (Association of German Transport Companies)
DIN	Deutsches Institut für Normung (German Institute for Standardization)