



## STS Directory

Accreditation number: STS 0655

International standard: ISO/IEC 17025:2017  
Swiss standard: SN EN ISO/IEC 17025:2018

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Initial accreditation: 13.08.2018  
Current accreditation: 13.08.2023 to 12.08.2028  
Scope of accreditation see: [www.sas.admin.ch](http://www.sas.admin.ch)  
(Accredited bodies)

### Scope of accreditation as of 13.08.2023

#### Testing laboratory for Electromagnetic compatibility

| Group of products or materials, field of activity                            | Principle of measurement <sup>2)</sup> (characteristics, measuring ranges, type of test)            | Test methods, remarks (national, international standards, in-house test methods) |
|--|---|--|
| <b>Electromagnetic Compatibility</b><br><b>Susceptibility Basic Standard</b> | Testing and measurement techniques – Electrostatic discharge immunity test                          | 2014/30/EU und SR 734.5<br>EN 61000-4-2, IEC 61000-4-2                           |
|  | Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test | EN 61000-4-3, IEC 61000-4-3<br>80MHz - 1GHz: 15V/m<br>1GHz - 6GHz: 10V/m         |
|  | Testing and measurement techniques - Electrical fast transient/burst immunity test                  | EN 61000-4-4, IEC 61000-4-4  |
|  | Testing and measurement techniques - Surge immunity test  | EN 61000-4-5, IEC 61000-4-5  |



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|--|---|---|
| <b>Generic Standard</b>  | Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields                          | EN 61000-4-6, IEC 61000-4-6   |
|  | Testing and measurement techniques – Power frequency magnetic field immunity test   | EN 61000-4-8, IEC 61000-4-8<br>max. EUT volume: $\varnothing < 0.57\text{m}$<br>max. 150A/m continuous<br>max. 1000A/m for 5s |
|  | Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests                        | EN 61000-4-11, IEC 61000-4-11   |
|  | Testing and measurement techniques – Test for immunity to conducted, common mode disturbances in the frequency range 0 Hz to 150kHz | EN 61000-4-16, IEC 61000-4-16<br>Limited frequency range: 15Hz – 150kHz   |
|  | Testing and measurement techniques – Ripple on d.c. power port immunity tests   | EN 61000-4-17, IEC 61000-4-17<br>EUT limited to 3.5A nominal current  |
|  | Voltage dips, short interruptions and voltage variations on d.c. power port immunity tests  | EN 61000-4-29, IEC 61000-4-29<br>EUT limited to 3.5A nominal current  |
|  | Immunity for residential, commercial and light-industrial environments  | EN 61000-6-1, IEC 61000-6-1   |
|  | Immunity for industrial environments  | EN 61000-6-2, IEC 61000-6-2   |
|  | Emission standard for residential, commercial and light-industrial environments   | EN 61000-6-3, IEC 61000-6-3<br>without IEC 61000-3-X  |
| Emission standard for industrial environments  | EN 61000-6-4, IEC 61000-6-4<br>without IEC 61000-3-X  |   |
| Immunity requirements for equipment intended to perform functions in a safety-related system (functional safety) in industrial locations | EN 61000-6-7, IEC 61000-6-7   |   |



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|---|--|--|
| <b>Electrical equipment for measurement, control and laboratory use</b> | <p>General requirements</p> <p>Test configurations, operational conditions and performance criteria for sensitive test and measurement equipment for EMC unprotected applications</p> <p>Test configuration, operational conditions and performance criteria for transducers with integrated or remote signal conditioning</p> <p>Test configurations, operational conditions and performance criteria for field devices with interfaces according to IEC 61784-1</p> <p>Immunity requirements for safety-related systems and for equipment intended to perform safety-related functions (functional safety) – General industrial applications</p> <p>Immunity requirements for safety-related systems and for equipment intended to perform safety-related functions (functional safety) – Industrial applications with specified electromagnetic environment</p> | <p>EN 61326-1, IEC 61326-1 without IEC 61000-3-X</p> <p>EN 61326-2-1, IEC 61326-2-1</p> <p>EN 61326-2-3, IEC 61326-2-3</p> <p>EN 61326-2-5, IEC 61326-2-5</p> <p>EN 61326-3-1, IEC 61326-3-1 <sup>K3)</sup></p> <p>EN 61326-3-2, IEC 61326-3-2</p> |
| <b>Product Standard</b>   | <p>Elektromagnetische Verträglichkeit von Betriebsmitteln der Prozess- und Labortechnik</p> <p>General requirements for measuring instruments - Environmental conditions</p> <p>Water meters for cold potable water and hot water, Part 2: Test methods</p> <p>Heat meters - Part 2: Type approvals tests and initial verification tests</p>   | <p>NAMUR NE21 without IEC 61000-3-X<br/>Extended frequency range IEC 61000-4-6: 10kHz - 80MHz</p> <p>OIML D11 <sup>K1)</sup></p> <p>OIML R49-2 <sup>K1)</sup></p> <p>OIML R75-2 <sup>K1)</sup></p>   |



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|---|--|---|
|   | <p>Dynamic measuring systems for liquids other than water Part 2: Metrological controls and performance tests</p> <p>Gas meters - Part 1: Metrological and technical requirements<br/>Part 2: Metrological controls and performance tests</p> <p>Compressed gaseous fuel measuring systems for vehicles. Part 2: Metrological controls and performance tests</p> <p>Heat meters - Part 4: Pattern approval tests</p> <p>Programmable controllers - Part 2: Equipment requirements and tests</p> <p>Information technology equipment- Immunity characteristics - Limits and methods of measurement</p> <p>Environmental test specification for electrical, electronic and programmable equipment and systems</p> <p>Maritime navigation and radio-communication equipment and systems. General requirements</p> <p>Test Specification applicable, but not confined, to electrical, electronic and programmable equipment intended for control, monitoring, alarm and protection Systems for use in ships.</p> <p>Electrical Installations in Ships - Part 504: Special features - Control and Instrumentation</p> <p>Electrical and electronic installations in ships - electromagnetic compatibility</p> | <p>OIML R117-2 <sup>K1)</sup></p> <p>OIML R137-1&amp;2 <sup>K1)</sup></p> <p>OIML R139-2 <sup>K1)</sup></p> <p>EN 1434-4 <sup>K1)</sup></p> <p>EN 61131-2, IEC 61131-2</p> <p>EN 55024<br/>without 10/700 Telecom Surge</p> <p>DNVGL-CG-0339 <sup>K1)</sup></p> <p>EN 60945; IEC 60945 <sup>K1)</sup></p> <p>IACS UR E 10<br/>Test No: 3, 4, 9, 10, 13, 14, 15, 16, 17, 18, 19, 20</p> <p>IEC 60092-504 only EMC Tests</p> <p>IEC 60533</p> |



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| <p><b>Electromagnetic compatibility and Radio spectrum Matters</b></p> | <p>Electro Magnetic Compatibility standard for radio equipment and services</p> <p>Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering the essential requirements of article 3.2 of the R&amp;TTE Directive</p> <p>Long Term Evolution; Evolved Universal Terrestrial Radio Access (E-UTRA); Electromagnetic compatibility requirements for mobile terminals and ancillary equipment (3GPP TS 36.124 version 15.2.0 Release 15)</p> <p>Universal Mobile Telecommunications System; Electromagnetic compatibility requirements for mobile terminals and ancillary equipment (3GPP TS 34.124 version 15.0.0 Release 15)</p> <p>Part 1: Common technical requirements</p> <p>Part 17: Specific conditions for Broadband Data Transmission Systems</p> <p>Part 52: Specific conditions for Cellular Communication Mobile and portable (UE) radio and ancillary equipment (Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU)</p> <p>Requirements for equipment intended to be used in residential, commercial and light industry locations. (Harmonised Standard covering the essential requirements of article 3.1(b) of the Directive 2014/53/EU)</p> | <p>ETSI EN 300 328 <sup>K4)</sup><br/>Limited to: 5.4.8 Transmitter unwanted emissions in the out-of-band domain and 5.4.9 Transmitter unwanted emissions in the spurious domain</p> <p>ETSI TS 136 124 <sup>K4)</sup></p> <p>ETSI TS 134 124 <sup>K4)</sup></p> <p>ETSI, EN301 489-1 <sup>K1)</sup></p> <p>ETSI, EN301 489-17 <sup>K1)</sup></p> <p>ETSI, EN301 489-52 <sup>K1)</sup></p> <p>ETSI, EN 303 446-1 <sup>K1)</sup></p> |



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|--|--|--|
| <b>Emission</b>  | Specific conditions for equipment intended to be used in industrial locations. (Harmonised Standard covering the essential requirements of article 3.1(b) of the Directive 2014/53/EU) | ETSI, EN 303 446-2 <sup>K1)</sup>  |
|  | Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics- Limits and methods of measurement  | CISPR 11, EN 55011 <sup>K2)</sup>  |
| <b>Safety requirements for electrical equipment for measurement, control, and laboratory use</b> | Information technology equipment - Radio disturbance characteristics Limits and methods of measurement   | CISPR 22, EN 55022 <sup>K2)</sup> without 10/700 telecommunication surge         |
|  | Electromagnetic compatibility of multimedia equipment – Emission requirements  | CISPR 32, EN 55032 <sup>K2)</sup>  |
|  | High Voltage Test  | EN 61010-1, IEC61010-1 Chapter 6.8. Voltage tests                                |
|  | Protective Bonding Impedance   | EN 61010-1, IEC61010-1 Chapter 6.5.2   |

### Restriction and Remarks:

- K1) Restriction: EMC only
- K2) Restriction: Single phase only
- K3) Restriction: common mode disturbances EN 61000-4-16 only frequency 15Hz – 150kHz
- K4) Restriction: measurement of unwanted radiated emission up to 18GHz; no measurement of RF output or Occupied Bandwidth.

| Abbreviation | Signification   |
|--------------|---|
| EMC          | Electro Magnetic Compatibility                        |
| ETSI         | European Telecommunications Standards Institute       |
| CISPR        | International Special Committee on Radio Interference |
| OIML         | International Organization of Legal Metrology         |

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