Installation and Maintenance Instruction Manual

Level Switch Model LS

for explosion risk areas pursuant to Directive 2014/34/EU (ATEX)

In the versions:

- LS###ATEX

Table of Contents:

1 General remarks

The level switch described in these operating instructions is designed using the latest standards, guidelines and findings. During the manufacturing processes, all components are subject to our high quality and environmental criteria. For this purpose, we maintain certified management systems according to ISO 9001 and ISO 14001. For the special requirements of devices for intended use in potentially explosive atmospheres, we maintain a management system according to ISO 80079-34.

1.1 Purpose of this manual

These operating instructions contain basic instructions that must be followed for the installation, operation and maintenance of the device. It must be read by the installer, the operator and the specialist personnel responsible for the device before the device is installed and commissioned. These operating instructions must always be available at the place of use.

The following sections on general safety instructions 2 as well as the following special instructions on intended use 2.2 to disposal 0 contain important safety instructions, the non-observance of which may cause health and safety hazards to people, in particular to workers, and possibly to domestic and farm animals, as well as property.

1.2 Symbols

Warning.

...indicates a potentially hazardous situation, the non-observance of which may cause hazards to the health and safety of people, especially workers, and possibly to domestic and farm animals, as well as property.

Information.
... highlights important information for efficient and trouble-free operation.

1.3 Limitation of liability

Improper use of the equipment, failure to observe the operating instructions, use of unqualified personnel for installation and maintenance work, or unauthorized modifications to this equipment will inevitably result in the loss of liability claims against the equipment manufacturer.

1.4 Copyright

Subject to technical changes.

1.5 Warranty

For the product described here we grant warranty according to § 6 warranty for defects, in our General Terms and conditions of delivery and payment.

1.6 Manufacturer address, customer service

Ashcroft Instruments GmbH
Max Planck Street 1
D-52499 Baesweiler

Tel.: +49 (0) 2401/808-888
Fax.: +49 (0) 2401/808-999
Mail: customer.service@ashcroft.com
Web: www.ashcroft.eu

2 Safety

2.1 General sources of danger

Level switches can be part of oleodynamic equipment or fluid reservoirs, in case of damage or leakage of the fluid tank it can result in hazardous situations. The selection of switches should be made in accordance with the applicable standards, regulations and engineering practice.

The devices are only to be used for the intended purpose as described by the manufacturer.

2.2 Intended use

The devices may only be used for the purpose intended by the manufacturer.
The intended use of the devices, determined by the manufacturer, is to control the presence of liquid contained in a tank, supplying electrical signal to a control panel when its level changes. The fluid storage, which can be low pressurized, can be part of a potentially explosive atmospheres.

According to the Pressure Equipment Directive 2014/68/EU, the device is classified as pressure-maintaining equipment without a safety function in accordance with Article 4(3) of the Directive.

When operating the device, care must be taken to ensure that the medium used is harmless to the selected device material. Process media that exhibit changes in the state of aggregation within a range of application can influence the functionality. Negative influences must be avoided for this reason. The process condition of these media must be within the technical limits of the device.

Further technical data on the intended use are summarized in the product data sheet, see section 12.1 these instructions.

2.3 Operator’s responsibility

Instructions for the proper operation of the device must be observed. They are to be provided by the operator, the respective qualified personnel for installation, maintenance and operation. Risks from electrical energy and from the released energy of the medium, from escaping media and from improper connection of the device must be eliminated. The details for this are to be found in the corresponding applicable set of regulations, such as DIN EN, UVV (accident prevention regulations) and in sector-specific instances of use (DVWG, Ex-. GL, etc.), the VDE guidelines and the regulations supplied by local utilities companies. The device must be included in the equipotential grounding within the system.

The device must be taken out of operation and secured against unintentional operation if it must be assumed that safe operation is no longer possible (see chapter 10, Faults).

Opening the device when energized and performing technical modifications by the customer violate the explosion protection approval and are not permitted.

The operational safety of the device and the manufacturer's warranty are only guaranteed if the device is used as intended. The device design must be adapted to the medium and potentially explosive atmosphere used in the plant. The limit values specified in the technical data must not be exceeded.

The safety instructions listed in this operating manual, existing national regulations for accident prevention and internal work, operating and safety regulations must be observed by the operator. Furthermore, he is responsible for ensuring that all prescribed maintenance, inspection and assembly work is carried out by authorized and qualified personnel.

The device may be regarded as a pressure-maintaining part of a plant in a potentially explosive atmosphere. The operator of this plant is obliged to carry out an ignition hazard analysis and a zone classification.

2.4 Personnel qualification

The device may only be installed and commissioned by trained specialist personnel.

Specialized personnel are persons who are able to perform the work assigned to them due to their specialized training, experience and knowledge of the country-specific regulations, applicable standards and guidelines. For explosion-protected devices, the personnel must be trained or instructed or authorized to work on explosion-protected devices in hazardous areas.

2.5 Signs/safety marking

The device is provided with a label. The label shows the type designation, serial number, year of manufacture, certificate of approval number, Ex marking (including X for special conditions of use) and manufacturer.

With agency approval Ex d the device is provided with two warning label:

- DO NOT OPEN WHEN ENERGIZED OR EXPLOSIVE ATMOSPHERE IS PRESENT

The operator must check the label, which is important for the use in potentially explosive atmospheres, at regular intervals to ensure that it remains legible.

The outer packaging is labelled with the type designation, order number, item number and manufacturer's data.

2.6 Environmental protection

This device contain electrical components. The provisions of the Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) 2006/1907/EC must be observed, the corresponding safety data sheets of the manufacturers of the chemicals, are available for download on our website. At the end of the product life cycle, we recommend to recycle the devices, as they are mostly made of stainless steel. Instructions for disassembly, material separation and disposal can be found in chapters 11.1 and 0

3 Use in potentially explosive atmospheres according to Directive 2014/34/EU ATEX

3.1 Range of use:

Potentially explosive atmospheres Zone 0, 1 and 2, as well as 21, hazard due to gases and dry dusts.

The permissible environment has the usual oxygen content (21%), ambient pressure 80 kPa (0.8 bar) to 110 kPa (1.1 bar).

The requirements of the applicable standards EN IEC 60079-0, EN ISO 60079-1, EN 60079-31 or EN ISO 60079-11, EN ISO 60079-26 were considered by an ignition hazard assessment. The applicable requirements of these standards have been met.

The documentation has been filed with TÜV-Italia Gruppo TÜV Süd NB 0948 (see Declaration of Conformity).

Fluid Temperatures:

Permissible max. medium temperature in the measuring system
≤ 70 °C

The medium temperature depends on the ignition temperature of the surrounding gas, vapours or dust, on the design of the device, the surface, as well as the ambient temperature and other external heat sources. The device itself does not have its own heat source.

3.2 Intrinsic safe execution Ex ia

Ambient temperatures for intrinsic safety series:

Execution	Min. / Max. permissible ambient temperature	Temperature class
Enclosure with wire terminals (LS)	- 60°C to +80°C	T6

To avoid additional temperature increase, the devices should not be exposed to direct exposure to sunlight when in operation!

When process temperatures for Ex ia are elevated, see below maximum temperature reachable on LS stem/slide bar

Model	EPL	Ambient Temperature	MAX. Process Temperature	Temperature Class
Level Switch (LS)	ia	-60°C +80°C	80°C	T6
	ia	-60°C +70°C	150°C	T6

3.2.1 Labeling

Ex marking according to 2014/34/EU				Ex marking according to EN 60079-0				
CE	Ex	II	1G	Ex ia	IIC IIB	T6	Ga	X

CE	CE marking
Ex	Marking for explosion protection
II	Group II equipment is intended for use in places with explosive gas atmospheres, excluding mine gas and/or dust from hazardous mining operations.
1G	Equipment group for gases and vapors in which an explosive atmosphere may occur continuously during normal operation.
Ex ia	Marking according to the equipment protection level for electrical equipment in potentially explosive atmospheres (intrinsic safety)
IIB	Suitable for gas atmosphere IIB
IIC	Suitable for gas atmosphere IIC
T6	Maximum surface temperatures which are mainly dependent on the operating conditions
Ga	Equipment for explosive gas atmospheres, having a “very high” level of protection, which is not a source of ignition in normal operations, during expected malfunctions or during rare malfunctions.
X	Special conditions of use must be observed

3.2.2 Intrinsic ATEX ia wiring

For any ASHCROFT® Level Switch with intrinsic safety certification (Ex ia) the following electrical parameters have to be considered:

$$L_i = 4\ \mu H \text{ and } C_i = 20\ pF$$

Power supply parameters:

$$U_i \leq 30\ V \text{ and } I_i \leq 160\ mA$$

3.3 Flameproof enclosure execution Ex d

When process temperatures for Ex d are elevated, see below maximum temperature reachable on LS stem/slide bar

Model	EPL	Ambient Temperature	MAX. Process Temperature	Temperature Class
Level Switch (LS)	d	-60°C +80°C	80°C	T6
	d	-60°C +70°C	150°C	T6

3.3.1 Labeling

Ex marking according to 2014/34/EU				Ex marking according to EN 60079-0				
CE	Ex	II	2G 2D	Ex db Ex tb	IIB IIC IIIC	T6 T80°C	Gb Db	X

CE	CE marking
Ex	Marking for explosion protection
II	Group II equipment is intended for use in places with explosive gas atmospheres, excluding mine gas and/or dust from hazardous mining operations.
2G	Equipment group for gases and vapors in which an explosive atmosphere may occasionally occur during normal operation.
2D	Equipment group for dusts in which an explosive atmosphere may occur during normal operation or for a short time.
Ex db	Marking according to the equipment protection level for electrical equipment in potentially explosive atmospheres (flameproof enclosure)
Ex tb	Marking according to the equipment protection level for electrical equipment in potentially explosive atmospheres (protection through the enclosure)
IIB	Suitable for gas atmosphere IIB
IIC	Suitable for gas atmosphere IIC
IIIC	Suitable for flammable suspended solids, non-conductive and conductive dust
T6 T80°C	Maximum surface temperatures which are mainly dependent on the operating conditions
Gb	Equipment protection level for gases containing all potential ignition sources that are effective, which may occur during normal operation, in expected malfunctions.
Db	Equipment protection level for dusts containing all potential ignition sources that are effective, which can occur during normal operation, in expected malfunctions.
X	Special conditions of use must be observed

3.4 Special operating conditions for safe use in potentially explosive atmospheres

- Maintenance work to be carried out, from chap. 9 by unauthorized personnel may result in damage and lead to loss of approval.
- To avoid possible spark generation due to static charge, the device should always be cleaned with a damp cloth.
- The legibility of the nameplates must be checked at regular intervals. It must remain legible throughout the entire period of use of the device. If a reliable reading is no longer given, please contact the manufacturer.
- Impacts on the device must be avoided at all costs. Impacts or shocks can produce sparks.
- It is the responsibility of the operator to evaluate attached process components or accessories together with the delivered device by means of an ignition hazard analysis. The operator must recognize the ignition hazards and prevent them by using appropriate protective measures.
- The operator must comply with the points from chapter 2.3 "Responsibility of the operator".

4 Technical data

For detailed technical data, please refer to the documents in the appendix chapter 12.

4.1 Reed contacts

Maximum current table for Reed contacts					
	Number of contacts				
	1	2	3	5	7
Maximum power load	**SPST 40 W [VA]**	**SPST 60 W [VA]**	**SPST 120 W [VA]**	**SPST 60 W [VA]**	**SPST 5 W [VA]**
Max charge in Voltage [V]	**Max current load in Ampere [A]**				
6	2	3	3	1	0,25
12	2	3	3	1	0,25
24	1,5	2,5	3	1	0,2
48	0,8	1,25	2,5	1	0,1
110	0,3	0,5	1	0,5	0,05
230	0,15	0,25	0,5	0,25	-

Note 1: The electric charge to the level switch should not exceed the electric tension and current load values indicated on the table.

Note 2: In case of power charge piloting, it is necessary to use auxiliary relays or snubbers/suppressors.

4.2 Electrical Wiring

The wiring of the ASHCROFT® Level Switches is available in various configurations:

- Two, three or four wires sealed cable
- Box with terminal blocks weatherproof “S” or explosion proof “A” version; the housing have two electrical entries located a side.

4.2.1 Head type A, AX, B, IAC, IAX, IB

4.2.1.1 Separate wiring

Each contact has its own supply

Separate wiring / Single contact (SPST)	
	Cable colour
L5 — 10 — 9	Black Black
L4 — 8 — 7	White White
L3 — 6 — 5	Red Red
L2 — 4 — 3	Blue Blue
L1 — 2 — 1	Yellow Yellow

Separate wiring / Double contact(SPDT)	
	Cable colour
L3 — 9 — 8 — 7	White Orange Brown
L2 — 6 — 5 — 4	White Black Blue
L1 — 3 — 2 — 1	White Red Yellow

For separate wiring in SPDT form, exceeding one switch point, the white colour wire is always the common wire.

4.2.1.2 Common wiring

Each contact is fed by one wire common for all contacts

Common wiring / Single contact (SPST)	
	Cable colour
L6 — 7 L5 — 6 L4 — 5 L3 — 4 L2 — 3 L1 — 2 — 1	White (COM) Brown Orange Black Red Blue Yellow

Common wiring / Double Contact(SPDT)	
	Cable colour
L4 — 9 L3 — 8 — 7 L2 — 6 — 5 L1 — 4 — 3 — 2 — 1	White (COM) Grey Green Orange Brown Black Blue Red Yellow

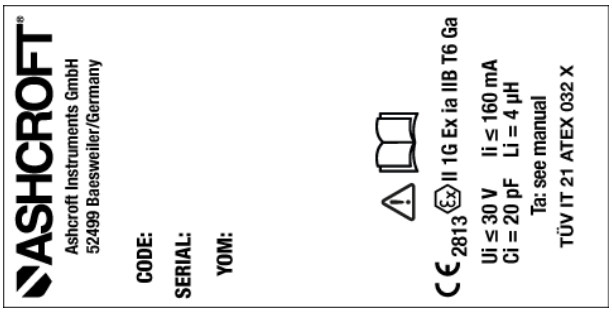
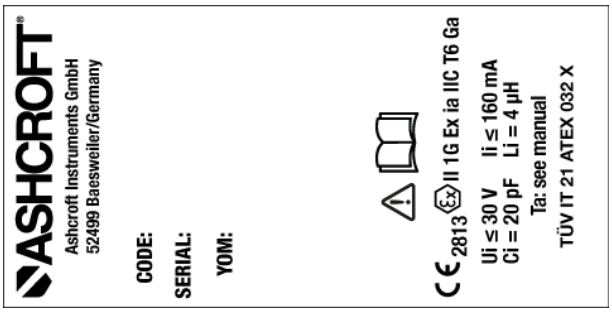
For common wiring, higher wire number (normally in white colour), will be always the common wire to connect to voltage supply.

5 Marking of the device

The device is provided with marking on a label or with laser tagging on process connection. The label shows the type designation, serial number, year of manufacture, certificate of approval number, and manufacturer, alternative with limited space type designation, order number and item number. The marking for the hazardous areas, in the form of the description of the type of protection, the permissible ambient temperature and the deposit number, are located in the lower area of the nameplate.

5.1 Labeling

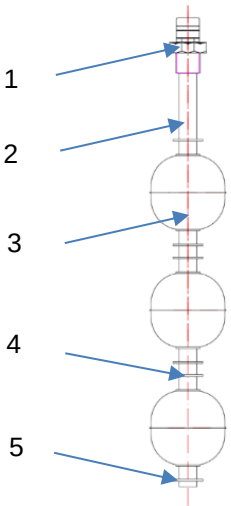
Execution	Label
Standard housing (Non ATEX) LS=S	
LS=B	
LS=A	
LS=IB	

LS=IA	
Cable Standard (Non ATEX) LS=C or LS=P	
LS=IBC (cable) LS=IBP (cable gland) LS=IBN (DIN connector)	
LS=IAC (cable) LS=IAP (cable gland) LS=IAN (DIN connector)	

6 Structure and function

6.1 Overview

1 Process connection
2 Stem / Slide bar
3 Float
4 Top level ring stop (Seeger ring)
5 Low level ring stop (Seeger ring)



6.2 Functional description

ASHCROFT® “ON-OFF“ level switches use reed switches magnetic sensors. This type of contact, hermetically sealed, inert gas filled, are placed inside the slide bar and switched-on when the magnetic float reaches the commutating area.

The stroke of each float is limited to the height of the controlled level by suitable ring stops.

The “reed switch“ contact is made of two low-reluctance magnetic foils, placed inside of a glass bulb in order to be protected by the dust, corrosion and oxidation. The inert gas inside the glass bulb is an additional protection against the oxidation of the contact.

The “reed switch” contacts can be operated up to one million operations at full resistive load, providing its electrical limits are respected. Auxiliary relays would be necessary for power circuits, as well as current snubbers / suppressors, to safeguard the efficiency of the contacts.

The “reed switch” contacts may be, single contact type, “SPST”, or changeover type, “SPDT”.

The “SPST” contact can be selected either as “normally closed (NC)” or “normally open (NO)“ form.

6.3 Description of the components

6.3.1 Reed contact

The Reed contact is hermetically sealed and filled with an inert gas. See table maximum current (see chap.4.1)

The standard condition (if normally open or normally closed) of the Reed contact is specified by the customer.

6.3.2 Float

The floats are swimming on top of the fluid and contain a magnet which allows to open or close the Reed contact circuit.

6.3.3 Stem / Slide bar

Inside the slide bar, the reed contacts are wired and secured against slipping by casting the tube with a 2k epoxy resin.

6.3.4 Top/low lever stop ring (Seeger ring)

The top or low lever stop ring are SEEGER® Locking Rings. The rings are limiting the heights of the controlled level.

7 Transportation

The device must be protected against impact and bending. The device shall only be transported in a cleaned condition (free of residual media).

7.1 Delivery

The delivery is to be checked for completeness and transport damage. In case of transport damage, the delivery is not to be accepted or only with reservation, the extent of damage is to be noted and, if necessary, a complaint is to be initiated. In these cases, please contact our service department.

7.2 Storage

The storage of the devices should exclude external influences as far as possible to avoid damage to the devices. Vibrations or impact effects must be avoided, and the limit values of the storage temperatures must be taken into account.

Permissible storage temperature: -60 to +80°C

8 Assembly/Installation

The instruments may be installed from the inside or from the outside of the tank, in according to the selected process connection. The process connection can be threaded or flanged. The level switches are always supplied completed with gasket to be always placed between the tank wall surface and the instrument connection.

The correct installation of our level switches must be in vertical position, with 30° maximum angle.

Use of suitable tools for the assembly and the disassembly of the instrument are recommended. For instruments with threaded connection, the wrench must be used on hexagon of the fitting.

8.1 Preparation

To ensure safe working during installation and maintenance, the system has to be

- Depressurized within the relevant plant for the purpose of repair or inspection,
- Functional checked on site.

During assembly/installation work, the system must be secured against being switched on again.

It is recommended to perform the assembly / installation without an existing explosive atmosphere (e.g. ventilated room).

8.2 Requirements for the installation site

- Check the suitability of the device for the process media to be controlled,
- Protection against any kind of mechanical vibration,
- The level switch must be mounted in a top vertical position,
- The floats must be able to swim freely on the fluid surface.

8.3 Process connection

The process connections comply with the general technical standards for threads or flanges. Thread types and materials of the process connections may vary depending on the application.

- Assembly of the device only by authorized and qualified personnel.
- The device must be integrated into the equipotential bonding of the process installation (e.g. by using an electrically conductive seal).
- When connecting the device, the tank must be depressurized.

Only use the appropriate open-end wrench to tighten the sealant on the intended wrench flat. The tightening torque depends on the sealant used.

8.4 Electrical connection

Take note of the electrical data in the EU design type test certification and the locally applicable regulations and guidelines for installing and operating electrical plant in explosion risk areas (e.g. EN 60079-14, etc.).

- Connection to be undertaken by authorized and qualified specialist staff only.
- The electrical connection of the device is to be undertaken in accordance with the relevant regulations of the VDE and the regulations supplied by the local utilities company.
- Disconnect the plant from the mains supply before wiring electrical connections.
- Before operating the switch all conduit entries and/or junction boxes need to be closed according to the required safety and electrical codes.
    a. Standard product has two 1/2 NPT conduit holes with one permanent plug. 1/2 NPT conduit holes can be modified or reduced with ATEX approved adapters.
    b. Available ATEX approved cable glands can be used.
- It is recommended that Teflon tape or other sealant be used on conduit, bushing, gland or plug threads to ensure integrity of the enclosure.
- Cable couplers, glands and conduit connectors must have the correct electrical approvals.
- Always follow safety and electrical regulations when connecting these devices.
- The system ground of the device is marked with a green coloured screw and/or by the ground symbol.
- ATEX approved switches have an external ground screw that must be connected.

8.5 Starting up

A prerequisite for starting up is the proper installation of all measuring and control lines. All connection must be laid in such a way that no mechanical forces can act on the device.

Before starting up, the tightness of the pressure connection must be checked.

8.6 Subsequent relocation of the level switch

Do not disassemble the device from the measuring point in order to mount it at another measuring point without cleaning it first. There is a risk of mixing media with unpredictable chemical reactions.

9 Maintenance

The devices are low maintenance. To ensure reliable operation and a long service life of the device, we nevertheless recommend that the device is checked regularly. When carrying out maintenance work on the device, the storage container must be depressurized, unintended starting up must be prevented.

The flameproof joints of the enclosures are not intended to be repaired.

9.1 Cleaning

- Deposits of liquid residues and dirt must be removed from the stem/slide bar
- Efficient sliding of the floats
- Top/low level ring stopp (SEEGER® ring) tightness on the stem/slide bar to prevent incorrect tank levels

Functional tests

The exact test cycles must be adapted to the operating and ambient conditions. When various device components interact, the operating instructions of all other devices must also be observed.

- Check float for free movement
- Check Reed contact by moving the float up and down

- Check on function, in conjunction with downstream components
- Check of pressure lines for damage and tightness

9.2 Cleaning and maintenance

Cleaning is carried out with a non-aggressive cleaning agent and a damp soft cloth to avoid electrostatic charging. In the same work process, care can be taken to detect possible damage to the device at an early stage. If any damage is detected, the unit should be handed over to the manufacturer's service department immediately.

10 Faults

All defective or faulty equipment must be taken out of service. Defective or faulty devices should be handed over to the manufacturer's service department immediately. Under no circumstances repair attempts should be made on site. Device safety can no longer be guaranteed.

Contact details see chap. 1.6

Fault	Possible causes	Possible measures
Switch function do not work	1) Damaged Reed contact 2) Jammed float 3) Wrong wiring 4) Missing or shifted SEEGER ring	1) Replacement of the level switch unit 2) Clean the slide bar/stem and floats with a soft cloth 3) Check wiring according to the manual 4) Send for repair to ASHCROFT®
Corrosion at slide bar/stem and float	Incompatible process media	Replace level switch with compatible materials
Bended slide bar/stem	Incorrect handling or mounting	Send for repair to ASHCROFT®
Damage to housing or wiring	Incorrect handling or mounting	Replace/repair level switch at ASHCROFT®

10.1 Behaviour after rectifying the fault

See chapter 8 Assembly/Installation

11 Dismantling & disposal

11.1 Disassembly

- During maintenance work on the unit, the lines must be depressurized and emptied and the system must be secured against being switched on again.
- Unplug or remove electrical wiring
- Dismantle the measuring device using a suitable tool

Residual media in and on dismantled measuring instruments can endanger people, the environment and equipment. Sufficient precautionary measures must be taken. If necessary, the devices must be cleaned thoroughly (see notes in the safety data sheets).

11.2 Disposal

At the end of the product life cycle, do not dispose of this product with normal household waste. Take this product to a collection point or a specialist disposal company for recycling of the components.

With the help of the product coding and our data sheet (see Appendix 12.1 available on our website) you will receive the necessary information to be able to carry out a material separation yourself. Our devices described in this manual are mostly made of stainless steels that can be recycled.

Materials to be recycled:

- Stainless steel (process connection, floats)
- Aluminium (housing)
- Copper (cables)
- Plastic or rubber (floats, plugs)

Please help to protect our environment!

Some of the product materials can be reused if you take the product to a collection point or to a waste management company. By reusing some parts or raw materials from used products, you make an important contribution to protecting the environment.

Our products are delivered in optimized packaging. This essentially means that materials are used which can be recycled as secondary raw materials at the local disposal service. For more information on the disposal of packaging, please contact your local administration.

12 Appendix

12.1 Data Sheet Level Switch

Detailed data sheets are available directly from the manufacturer (see 1.6 Manufacturer address, customer service).

Model	Designation	Document
LS	Level Switch odel LS	DS LS

12.2 Declaration of conformity for Level Switch for Ex ia

ASHCROFT®
Trust the shield.®

EU-Konformitätserklärung
EU-Declaration of Conformity
DIN EN ISO IEC 17050-1:2010

TÜVRheinland ZERTIFIZIERT
Management System ISO 9001:2015
www.tuv.com ID 9105011538

Ashcroft Instruments GmbH
Max-Planck-Straße 1
52499 Baesweiler

erklärt in alleiniger Verantwortung, dass die mit CE gekennzeichneten Produkte
declares in sole responsibility that the products marked with CE

Gerät: Niveauschalter „Serie LS“ und Niveaumessumformer „Serie TL“
Equipment: Level Switch “LS Series“ - Level Transducer “TL” Series“

Kennzeichnung:
Marking:

CE 2813 Ex II 1G Ex ia IIC T6...T3 Ga Stain steel float

CE 2813 Ex II 1G Ex ia IIB T6...T3 Ga NBR float

(Ta = see Manual)

Herstellungsdatum: ab 09.04.2021
Date of manufacture: from 09.04.2021

die grundlegenden Sicherheits- und Schutzanforderungen erfüllen, in Übereinstimmung mit den unten genannten Richtlinien und harmonisierten Normen. Die Konformitätsaussage bezieht sich auf die Konzeption und Fertigung der oben genannten Produkte.
the fundamental safety and protection requirements passed in accordance with the guidelines and harmonized *standards listed below. This declaration of conformity refers to the design and manufacture of the above products.*

Richtlinie *Directive*	2014/34/EU „Geräte und Schutzsysteme zur bestimmungs-gemäßen Verwendung in explosionsgefährdeten Bereichen“ *“equipment and protective systems intended for use in potentially explosive atmospheres”*
Angewendete harmonisierte Normen *Used harmonized Standards*	EN IEC 60079-0:2018, EN 60079-11:2012, EN 60079-26:2015
EU-Baumusterprüfbescheinigung *EU-TYPE Examination Certificate*	TÜV IT 21 ATEX 032 X
Benannte Stellen *Notification Bodys*	EC-Type Examination Notified Body No 0948 TÜV Italia Gruppo TÜV SÜD, Via Carducci 125 Pal. 23, 20099 San Giovanni (MI)
	QAN CSA SIRA 02 ATEX M145 Notified Body No 2813 CSA Group Netherlands B.V., Utrechtseweg 310, 6812 AR, Arnhem, Netherlands
Richtlinie *Directive*	2011/65/EU „Richtlinie zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten“ *“Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment”* 2015/863/EU „Änderung von Anhang II der Richtlinie 2011/65/EU“

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EU-Konformitätserklärung
EU-Declaration of Conformity
DIN EN ISO IEC 17050-1:2010

Management System ISO 9001:2015

	"Amending Annex II to Directive 2011/65/EU"
Einstufung *Classification*	Einstufung des Produktes nach Anhang II Punkt 9 der Richtlinie „Überwachungs- und Kontrollinstrumente einschließlich Überwachungs- und Kontrollinstrumente in der Industrie“ *Classificationof the product according to Annex II, point 9 of the Directive "Monitoring and control instruments, including industrial monitoring and control instruments".*
Stoffbeschränkungen *Substance restrictions*	Beschränkungen und Höchstkonzentrationen in homogenen Werkstoffen in Gewichtsprozent: *Limitations and maximum concentrations in homogeneous materials in percent by weight:* Blei (0,1 %) *Lead (0,1 %)* Quecksilber (0,1 %) *Mercury (0,1 %)* Cadmium (0,01 %) *Cadmium (0,01 %)* Sechswertiges Chrom (0,1 %) *Hexavalent chromium (0,1 %)* Polybromierte Biphenyle (PBB) (0,1 %) *Polybrominated biphenyls (PBB) (0,1 %)* Polybromierte Diphenylether (PBDE) (0,1 %) *Polybrominated diphenyl ethers (PBDE) (0,1 %)* Di(2-ethylhexyl)phthalat (DEHP) (0,1 %) *Bis(2-ethylhexyl) phthalate (DEHP) (0,1 %)* Butylbenzylphthalat (BBP) (0,1 %) *Butyl benzyl phthalate (BBP) (0,1 %)* Dibutylphthalat (DBP) (0,1 %) *Dibutyl phthalate (DBP) (0,1 %)* Diisobutylphthalat (DIBP) (0,1 %) *Diisobutyl phthalate (DIBP) (0,1 %)*
Das oben benannte Produkt erfüllt die derzeit gültigen Vorschriften der Richtlinie 2011/65/EU des Europäischen Parlaments und des Rates vom 8. Juni 2011 sowie der Delegierten Richtlinie 2015/863/EU der Kommission vom 31.03.2015. *The above-mentioned product comply with the currently valid provisions of Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 and the Commission Delegate Directive 2015/863/EU of 31 March 2015.*	

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Baesweiler, den 09.04.2021

Ort und Datum
Place and date

ATEX Verantwortlicher
ATEX Manager

12.3 Declaration of conformity for Level Switch for Ex d

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EU-Konformitätserklärung
EU-Declaration of Conformity
DIN EN ISO IEC 17050-1:2010

TÜV Rheinland ZERTIFIZIERT
Management System ISO 9001:2015

Ashcroft Instruments GmbH
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erklärt in alleiniger Verantwortung, dass die mit CE gekennzeichneten Produkte
declares in sole responsibility that the products marked with CE

Gerät: Niveauschalter „Serie LS“ und Niveaumessumformer „Serie TL“
Equipment: Level Switch “LS Series“ - Level Transducer “TL” Series“

Kennzeichnung:
Marking:

CE 2813 Ex
II 2G Ex db IIC T6...T4 Gb **or** II 2G Ex db IIB T6...T4 Gb
II 2D Ex tb IIIC T80°C...T115°C Db
(Ta = see Manual)

Herstellungsdatum: ab 09.04.2021
Date of manufacture: from 09.04.2021

die grundlegenden Sicherheits- und Schutzanforderungen erfüllen, in Übereinstimmung mit den unten genannten Richtlinien und harmonisierten Normen. Die Konformitätsaussage bezieht sich auf die Konzeption und Fertigung der oben genannten Produkte.
the fundamental safety and protection requirements passed in accordance with the guidelines and harmonized *standards listed below. This declaration of conformity refers to the design and manufacture of the above products.*

Richtlinie *Directive*	2014/34/EU „Geräte und Schutzsysteme zur bestimmungs-gemäßen Verwendung in explosionsgefährdeten Bereichen“ *“equipment and protective systems intended for use in potentially explosive atmospheres”*
Angewendete harmonisierte Normen *Used harmonized Standards*	EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-31:2014
EU-Baumusterprüfbescheinigung *EU-TYPE Examination Certificate*	TÜV IT 21 ATEX 031 X
Benannte Stellen *Notification Bodys*	EC-Type Examination Notified Body No 0948 TÜV Italia Gruppo TÜV SÜD, Via Carducci 125 Pal. 23, 20099 San Giovanni (MI)
	QAN CSA SIRA 02 ATEX M145 Notified Body No 2813 CSA Group Netherlands B.V., Utrechtseweg 310, 6812 AR, Arnhem, Netherlands
Richtlinie *Directive*	2011/65/EU „Richtlinie zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten“ *“Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment”* 2015/863/EU „Änderung von Anhang II der Richtlinie 2011/65/EU“

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