

USER MANUAL: PROBITSITE



ProbitSite The DALI Multimeter

PART I: GENERAL BASICS & SAFETY

1. Introduction and Product Overview

- 1.1 What is ProbitSite?
The ProbitSite Multimeter diagnoses the DALI installation in terms of signal quality, device inventory, and certification status. It is used for troubleshooting and quality assurance of DALI systems.

- 1.2 Package contents:
 - ProbitSite Multimeter
 - Carrying case
 - USB-C charging cable
 - 2x connection cables for DALI-Bus (incl. terminals)
 - Quick start guide

2. Safety instructions and warranty

- 2.1 **General safety regulations:**
 - ⚠ Caution: High voltage protocol! Although the DALI bus operates at low voltage (typically 16V), the DALI cable must be treated as a mains voltage cable (230V) in accordance with the installation regulations.
 - The ProbitSite Multimeter may only be connected and disconnected by trained personnel.

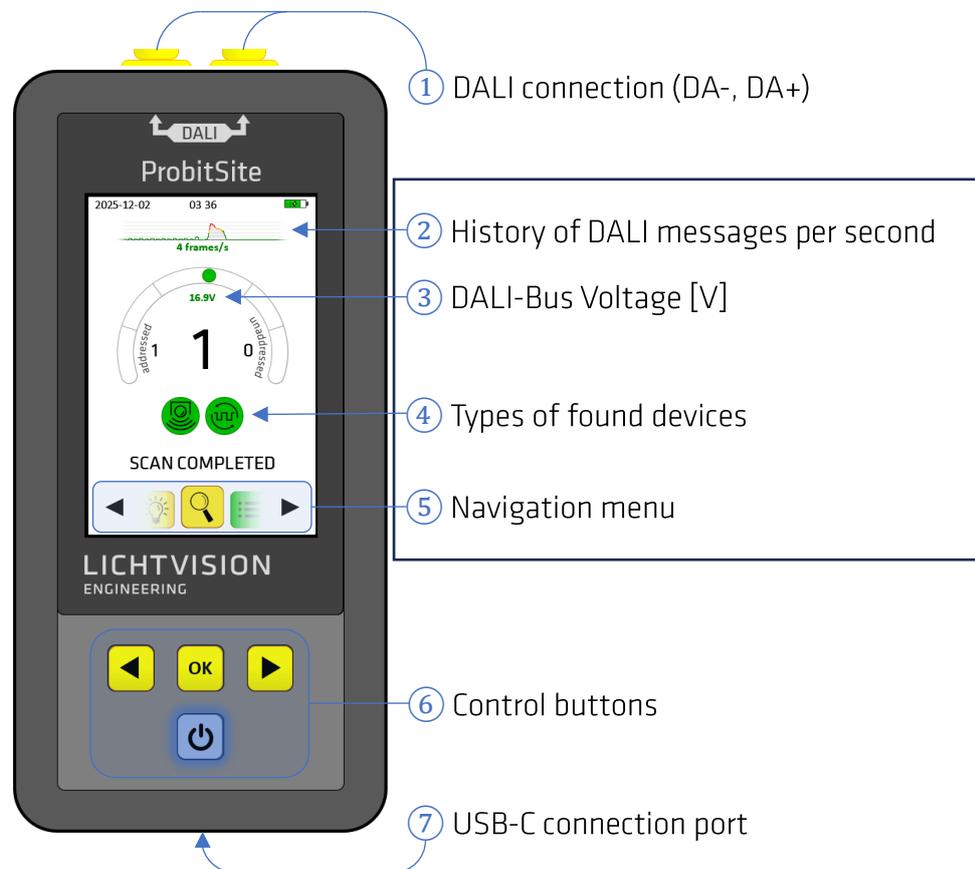
- 2.2 **Care instructions:** Clean the housing and connections exclusively with a dry, lint-free cloth.

- 2.3 **Warranty:** The device is covered by a one-year manufacturer's warranty and a two-year statutory warranty period

- 2.4 **Disposal:** This device contains a rechargeable battery. Dispose of the device separately from household waste via the appropriate state-designated facilities. Proper disposal of old devices and batteries prevents potential negative consequences for humans and the environment.

PART II: PROBITSITE MULTIMETER (THE HARDWARE)

3. Device overview



4. Menu functions

-  **Identify:** Make all or individual devices recognizable.
-  **Perform scans:** An overview of the devices currently connected to the bu.
-  **Inspect devices:** GTIN, address, device type, DALI-Version etc.
-  **Short addresses:** change and assign (Expert-Mode .
-  **Create reports:** With the companion app „[ProbitSite App](#)“ (Windows).

5. Initial setup and placement of the multimeter

- 5.1 **Battery and commissioning:** Charge the device via USB-C before using it for the first time. Switch on the device using the main switch.
- 5.2 **Placement guide:** The multimeter can be positioned anywhere on the DALI bus as an analysis tool.

PART III: Technical Specifications

- Screen TFT 420 x 480 px with 600cd/m²
 - Integrated memory 64GB (for 365 days of DALI recording*)
 - Battery 14,8Wh LiPo (for approx. 8 hours of runtime)
 - Weight 300g
 - Operating specifications IP20, +10°C to +35°C
 - GTIN 4262466940009
-
- USB connection USB-C socket
 - Charging specifications 5V / max. 500mA
-
- DALI connection 4mm safety sockets
 - Supply current nominal 16V
 - Supply current min. 190mA / max. 250mA
 - Dielectric strength 250Vac
 - Short-circuit resistance Yes, permanent
 - DALI standards IEC62386

The product falls under Directive 2012/19/EU (battery disposal) and must not be disposed of with household waste.

*With an average of 15 telegrams per second

🔍 PART IV: Performing the DALI bus analysis (DALI Scan)

6. Requirements for a measurement

- Connected DALI masters should support the DALI 2 standard.
- DALI 1 masters must be disconnected, as they can interfere with the communication traffic.

7. Measurement instructions

- Connect the ProbitSite multimeter directly to the DALI sockets (DA+/DA-) using the two cables provided.

⚠️ **WARNING: RISK OF ELECTRIC SHOCK!** The DALI line must be treated as a 240V mains voltage line.

- If no bus voltage is detected, the ProbitSite activates the integrated bus power supply.
- Depending on the number of participants, the scan can take between 30 seconds and 5 minutes. Do not disconnect the connection during a scan.
- After the scan, the system will be in its initial state. No existing configuration is being changes.

8. Elements of the scan display

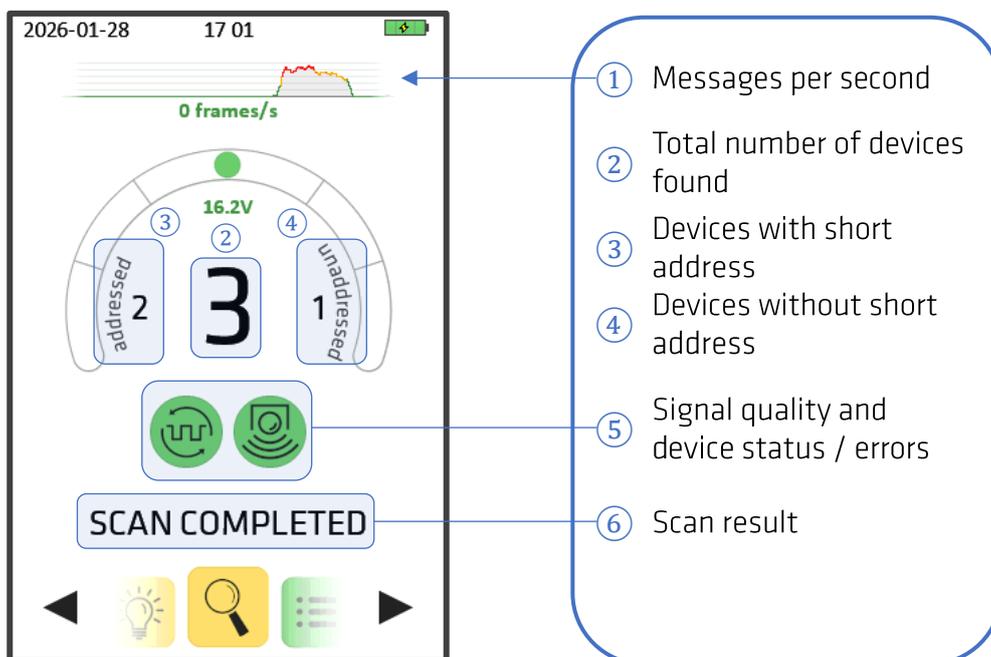


Figure 1

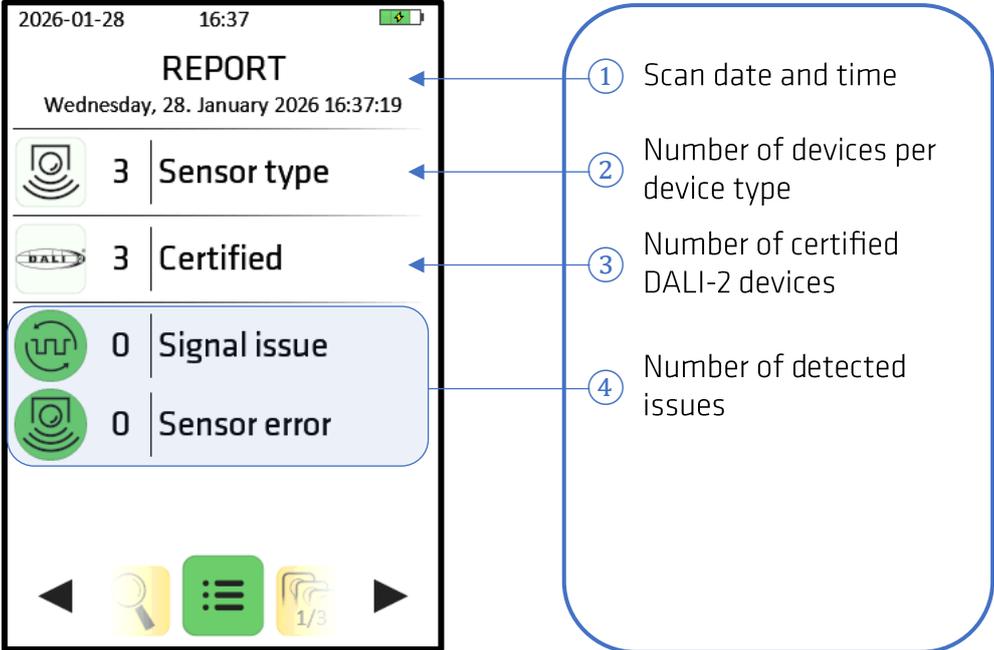


Figure 2

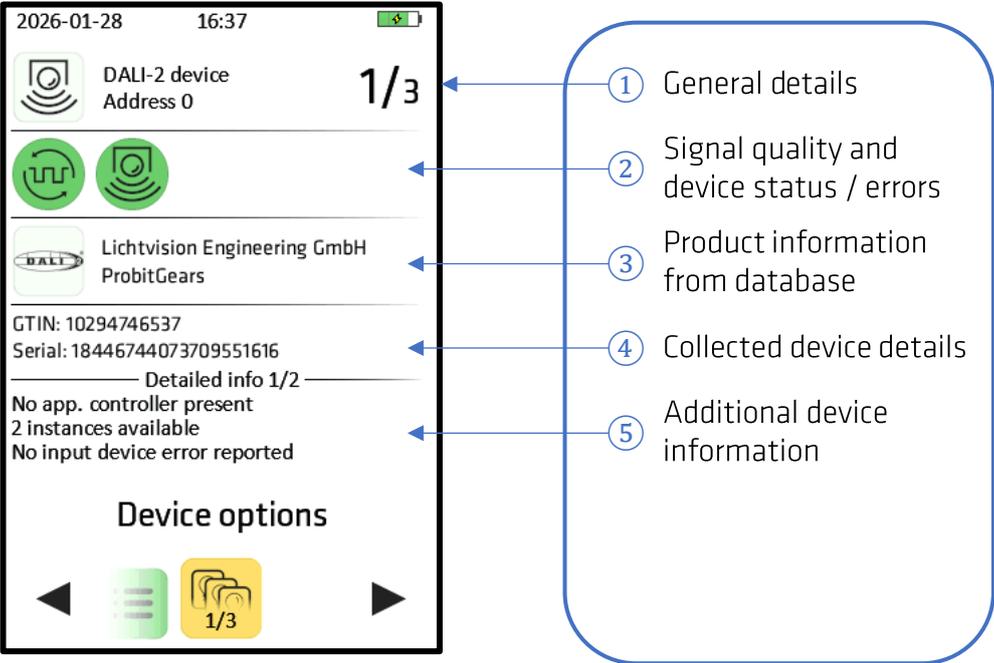


Figure 3

9. Evaluation of results

- 9.1 DALI version. See Figure 3: ①, ③

Symbol	Detected device	Description
-	„DALI-1 device“	Device complies with DALI protocol version 1.
-	„DALI-2 device“	Device complies with DALI protocol version 2. DALI-2 certification status is not confirmed.
	„DALI-2 device“	DALI-2 certified according to the local product database.

- 9.2 Device type.

Symbol	Description	Symbol	Description
	Luminaire (102)		Button/Switch (301/302)
	Colour luminaire (209)		Sensor (303/304)
	Emergency luminaire (202)		Control device (103)
	Unknown luminaire type		Unknown control device

- 9.3 Device errors.

Symbol	Description
	Lamp error – Light source not present, defective or electrical interruption detected
	Battery failure – Emergency light battery not present, defective or empty
	Button failure – Fault in the control element, e.g. short circuit or invalid state
	Address conflict – Multiple devices share the same short address.
	Missing function – Some answers were not received that should have been answered according to the DALI specification.

- 9.4 Signal quality: Evaluates the bit-times of the answer frames.

Symbol	Description
	The device always responds within the expected range.
	„Transmitter Violation“ – the messages should not be sent in this way, but every receiver should still understand them.
	„Receiver Violation“ – There is no guarantee that the messages will be interpreted correctly. Values are outside of the DALI specification.

PART V: Additional features

10. Identify function

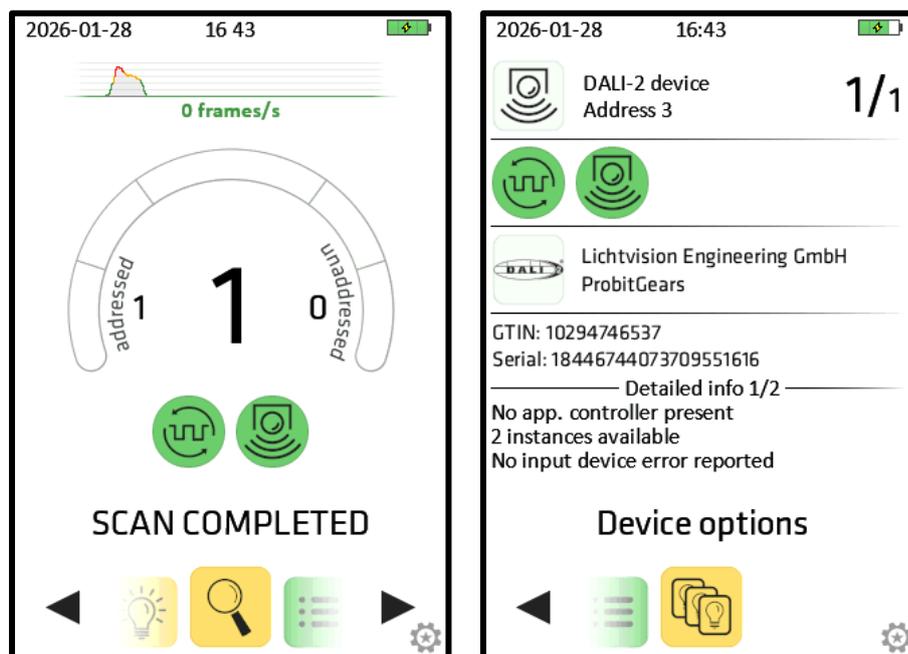
- 10.1 **Function:** Identify individual participants, usually by flashing an LED or an acoustic signal
 - Can be set to all devices simultaneously (Blink all) 
 - Individual devices, after a [Scan](#) 

11. Creation of a **DALI-Logs** (also called „DALI-Sniffer“)

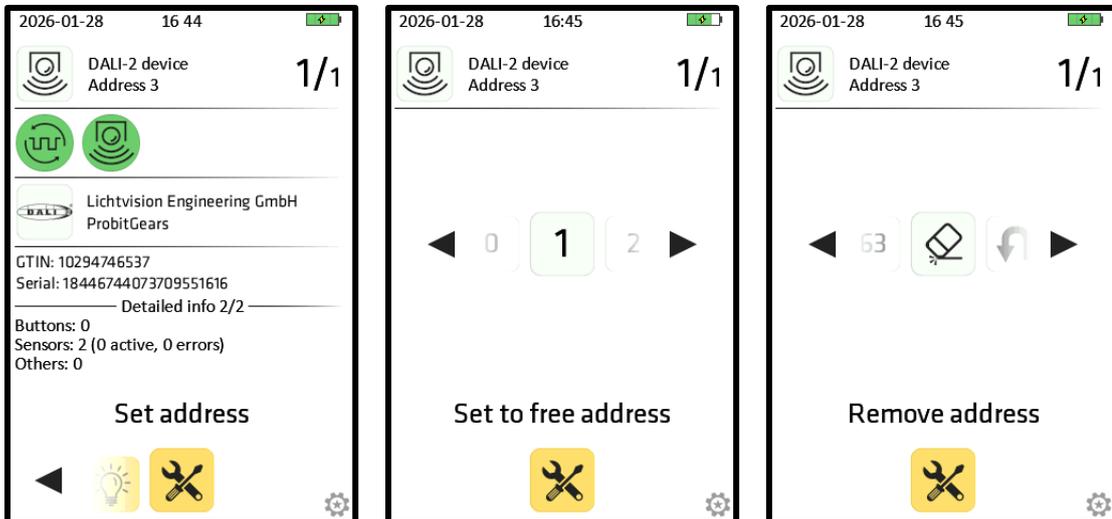
- 11.1 As long as ProbitSite is switched on, it "listens" to all DALI messages. No scan needs to be started for this; recording runs in the background. These messages can be displayed using the „[ProbitSite App](#)“ in the log tab  of a project.

12. Short address change

- 12.1 **Function:** Assign, change or remove short addresses
 - Up to 64 addresses for Control-Gears
 - 64 addresses for Control-Devices (DALI-2 only)
 - Only accessible in Expert-Mode  (can be activated using the [ProbitSite App](#))
- 12.2 **Instructions:**
 - Perform a scan and select the desired device



- Navigate to „Device options“-submenu and select „Set address“. Here, you can set a free address or remove the assigned one.



- Once the address has been successfully changed, a confirmation message will be displayed. We recommend another scan after making any changes for documentary purposes.



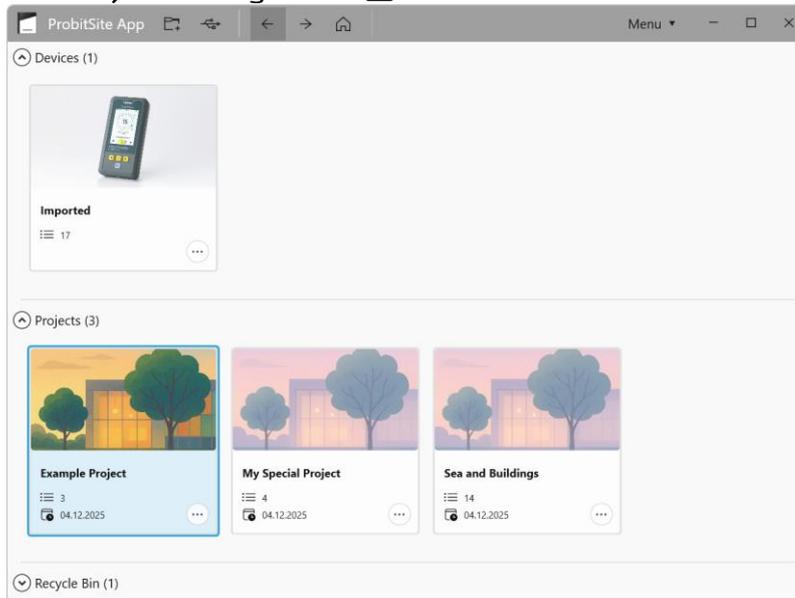
PART VI: PROBITSITE APP (THE COMPANION APP)

13. App installation and system requirements

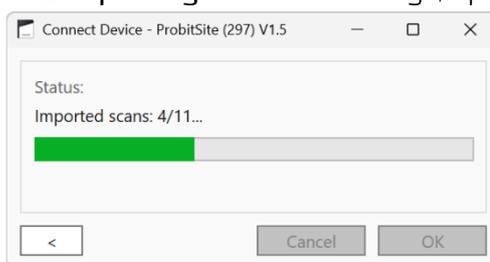
- 13.1 **Download source:** Download the ProbitSite App via the [link provided](#).
- 13.2 **System requirements:** The app requires Windows 10 (64-bit) or newer and a USB interface.

14. Usage of the ProbitSite App

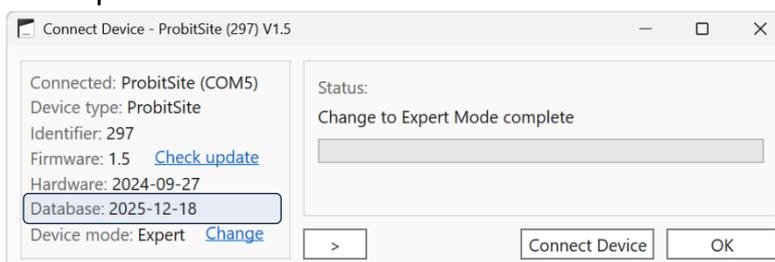
- 14.1 **Project management** 



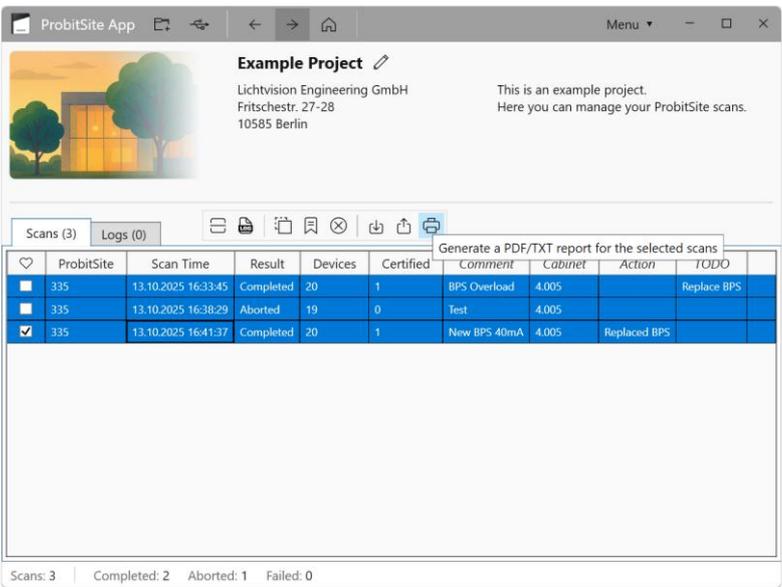
- 14.2 **Importing**  scans and logs, updating the firmware



- 14.3 **Expert-Mode**  activation



- 14.4 Generating PDF reports 



Example Project
Lichtvision Engineering GmbH
Fritschestr. 27-28
10585 Berlin

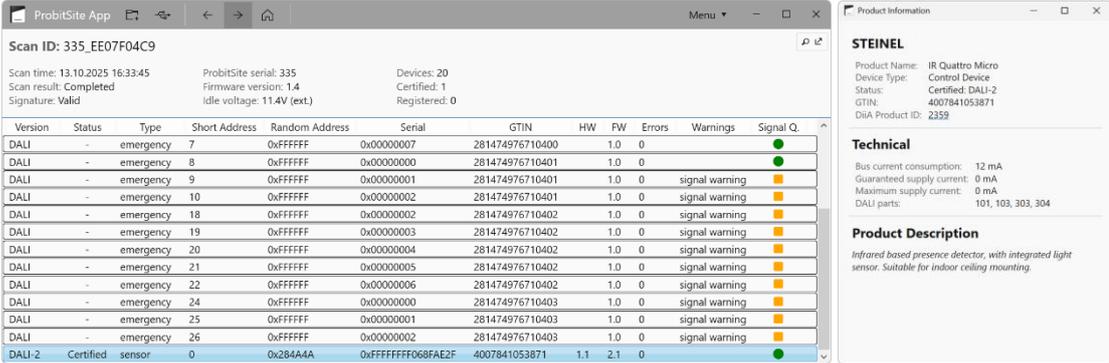
This is an example project.
Here you can manage your ProbitSite scans.

Scans (3) | Logs (0)

ProbitSite	Scan Time	Result	Devices	Certified	Comment	Cabinet	Action	TODO
335	13.10.2025 16:33:45	Completed	20	1	BPS Overload	4.005		Replace BPS
335	13.10.2025 16:38:29	Aborted	19	0	Test	4.005		
335	13.10.2025 16:41:37	Completed	20	1	New BPS 40mA	4.005	Replaced BPS	

Scans: 3 | Completed: 2 | Aborted: 1 | Failed: 0

- 14.5 Viewing the Scans 



Scan ID: 335_EE07F04C9

Scan time: 13.10.2025 16:33:45
Scan result: Completed
Signature: Valid

ProbitSite serial: 335
Firmware version: 1.4
Idle voltage: 11.4V (ext.)

Devices: 20
Certified: 1
Registered: 0

Version	Status	Type	Short Address	Random Address	Serial	GTIN	HW	FW	Errors	Warnings	Signal Q.
DALI	-	emergency	7	0xFFFFF	0x00000007	281474976710400	1.0	0			●
DALI	-	emergency	8	0xFFFFF	0x00000000	281474976710401	1.0	0			●
DALI	-	emergency	9	0xFFFFF	0x00000001	281474976710401	1.0	0		signal warning	●
DALI	-	emergency	10	0xFFFFF	0x00000002	281474976710401	1.0	0		signal warning	●
DALI	-	emergency	18	0xFFFFF	0x00000002	281474976710402	1.0	0		signal warning	●
DALI	-	emergency	19	0xFFFFF	0x00000003	281474976710402	1.0	0		signal warning	●
DALI	-	emergency	20	0xFFFFF	0x00000004	281474976710402	1.0	0		signal warning	●
DALI	-	emergency	21	0xFFFFF	0x00000005	281474976710402	1.0	0		signal warning	●
DALI	-	emergency	22	0xFFFFF	0x00000006	281474976710402	1.0	0		signal warning	●
DALI	-	emergency	24	0xFFFFF	0x00000000	281474976710403	1.0	0		signal warning	●
DALI	-	emergency	25	0xFFFFF	0x00000001	281474976710403	1.0	0		signal warning	●
DALI	-	emergency	26	0xFFFFF	0x00000002	281474976710403	1.0	0		signal warning	●
DALI-2	Certified	sensor	0	0x284A4A	0xFFFFFFF068FAE2F	4007841053871	1.1	2.1	0		●

Product Information

STEINEL

Product Name: IR Quattro Micro
Device Type: Control Device
Status: Certified-DALI-2
GTIN: 4007841053871
DiiA Product ID: 2359

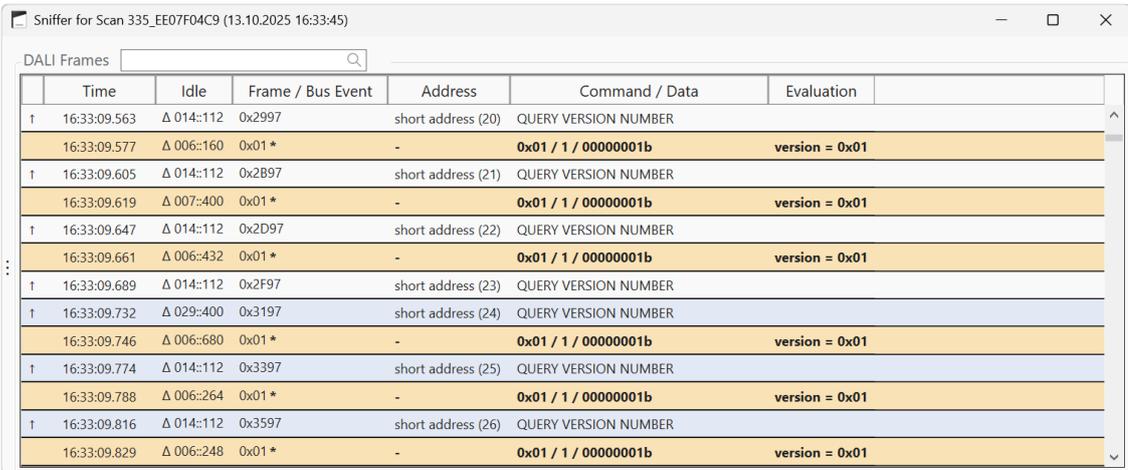
Technical

Bus current consumption: 12 mA
Guaranteed supply current: 0 mA
Maximum supply current: 0 mA
DALI parts: 101, 103, 303, 304

Product Description

Infrared based presence detector, with integrated light sensor. Suitable for indoor ceiling mounting.

- 14.6 Individual listing of the recorded DALI commands (DALI-Log) 



Sniffer for Scan 335_EE07F04C9 (13.10.2025 16:33:45)

Time	Idle	Frame / Bus Event	Address	Command / Data	Evaluation
16:33:09.563	Δ 014:112	0x2997	short address (20)	QUERY VERSION NUMBER	
16:33:09.577	Δ 006:160	0x01 *	-	0x01 / 1 / 00000001b	version = 0x01
16:33:09.605	Δ 014:112	0x2B97	short address (21)	QUERY VERSION NUMBER	
16:33:09.619	Δ 007:400	0x01 *	-	0x01 / 1 / 00000001b	version = 0x01
16:33:09.647	Δ 014:112	0x2D97	short address (22)	QUERY VERSION NUMBER	
16:33:09.661	Δ 006:432	0x01 *	-	0x01 / 1 / 00000001b	version = 0x01
16:33:09.689	Δ 014:112	0x2F97	short address (23)	QUERY VERSION NUMBER	
16:33:09.732	Δ 029:400	0x3197	short address (24)	QUERY VERSION NUMBER	
16:33:09.746	Δ 006:680	0x01 *	-	0x01 / 1 / 00000001b	version = 0x01
16:33:09.774	Δ 014:112	0x3397	short address (25)	QUERY VERSION NUMBER	
16:33:09.788	Δ 006:264	0x01 *	-	0x01 / 1 / 00000001b	version = 0x01
16:33:09.816	Δ 014:112	0x3597	short address (26)	QUERY VERSION NUMBER	
16:33:09.829	Δ 006:248	0x01 *	-	0x01 / 1 / 00000001b	version = 0x01

PART VII: TROUBLESHOOTING AND SUPPORT

15. Troubleshooting

Problem	Possible cause	Solution
No DALI devices detected	ProbitSite not correctly connected to the bus.	Check the electrical connection (Chapter 3).
High error rate	Interference from DALI-1 master or cable problems.	Disconnect DALI-1 master (Chapter 6). Check Bus-topology.
Poor signal quality for participants	Total DALI line too long (>300m).	Restart the scan at another point in the system.
„Bus overload“	Too many DALI participants. Voltage drops.	Check the DALI power consumption of the participants
„Bus traffic“	Interference from DALI-1 master or uncertified devices.	Disconnect DALI-1 master.

16. Support and contact information

If you have any technical questions about DALI diagnostics, please contact Lichtvision Engineering support.

Web: www.lichtvision-engineering.com

E-Mail: support@lichtvision-engineering.com

PART VIII: APPENDIX

17. FAQ

- What criteria are used to evaluate the devices?
 - Devices that respond outside the specified DALI bit timings are rated lower in terms of signal quality.
 - Failure to respond or responses outside the permitted time window will be documented and can be viewed in the logs.
- How does ProbitSite know that the device is from a specific manufacturer?
 - The ProbitSite contains a copy of the DiiA database. This is updated with every firmware update.
- What do the colours “green, yellow, red” mean in the signal evaluation?
 - Green: The device transmits and responds within the permissible specification.
 - Yellow: The messages should not be sent in this way, but are interpreted correctly by all participants.
 - Red: It is not guaranteed that the messages will be understood.
- Which devices are supported?
 - All DALI-1 and DALI-2 devices are supported during a scan, except DALI-1 master application controllers, as those do not respond to QUIESTENT-MODE and can interfere with the scan.
 - To create a DALI log (which messages are sent on the line), the DALI-1 master can remain connected.
- How does ProbitSite identify itself on the DALI line?
 - The ProbitSite is a single-master application controller. It does not respond to QUERY frames.
- When does the ProbitSite send messages to the DALI line?
 - When the individual functions are called up and started. The ProbitSite sends a PING message every 10 minutes.
- How does the „Identify“ function work?
 - Identifying (LED flashing) of all devices is triggered via broadcast. Identifying of individual, addressed devices is done via their short address. Unaddressed devices are temporarily assigned a free short address (usually 63) before the identify function is started. After the identify function has ended, this temporary short address is removed again.
- Are short addresses changed during the scan?
 - Existing short addresses are retained. However, in order to receive information from unaddressed devices, they are temporarily assigned a free short address (typically 63). This is released again after the scan to restore the original state.

KONFORMITÄTSERKLÄRUNG – CE & UKCA
DECLARATION OF CONFORMITY – CE & UKCA
DÉCLARATION DE CONFORMITÉ – CE & UKCA
DICHIARAZIONE DI CONFORMITÀ – CE & UKCA
DECLARACIÓN DE CONFORMIDAD – CE & UKCA



Wir / We / Nous / Noi / Nosotros

Lichtvision Engineering GmbH
Fritschestr. 27/28
D-10585 Berlin

erklären in alleiniger Verantwortung, dass das unten genannte Produkt mit den folgenden EU-Richtlinien übereinstimmt. Bei einer mit uns nicht abgestimmten Änderung des Produktes verliert diese Erklärung ihre Gültigkeit.

hereby declare with sole responsibility, that the product mentioned below coincides with the following EU directives. Any unauthorized changes to the product will void the validity of this declaration.

déclarons sous notre seule responsabilité, que le produit sur lequel porte cette déclaration correspond aux directives européennes suivantes. Cette déclaration n'est plus valable dans le cas où le produit subirait une modification sans notre accord.

dichiariamo sotto nostra esclusiva responsabilità che il prodotto riferito a questa dichiarazione corrisponde alle seguenti direttive UE. In caso di modifica del prodotto non concordata con noi questa dichiarazione perde validità.

declara que, bajo responsabilidad exclusiva, el producto abajo nombrado está de acuerdo con las siguientes directivas UE. Mediante la modificación del producto sin nuestro consentimiento, esta declaración perderá su validez.

Bezeichnung des Produktes	DALI Prüfgerät
<i>Product Description:</i>	<i>DALI test device</i>
<i>Famille du produit:</i>	<i>Appareil de contrôle DALI</i>
<i>Denominazione del prodotto:</i>	<i>Dispositivo di test DALI</i>
<i>Denominación del producto:</i>	Dispositivo de prueba DALI

Typenbezeichnung:	ProbitSite
Type:	
Désignation:	
Denominazione tipologia:	
Tipo de producto:	

Zutreffende EU-Richtlinien: EU-Funkrichtlinie (2014/53/EU)
Applicable EU directives: *EU Radio Equipment Directive (2014/53/EU)*
Directives UE concernées: *UE Directive d'Équipements Radioélectriques (2014/53/UE)*
Direttive UE applicabili: *UE Direttiva Apparecchiature Radio (2014/53/UE)*
Directivas UE aplicables: *UE Directiva de Equipos Radioeléctricos (2014/53/UE)*

EU-Richtlinie RoHS (2011/65/EU)
EU Directive RoHS (2011/65/EU)
UE Directive RoHS (2011/65/UE)
UE Direttiva RoHS (2011/65/UE)
UE Directiva RoHS (2011/65/UE)

EG-Richtlinie ErP (2009/125/EG)
EC Directive ErP (2009/125/EC)
CE Directive ErP (2009/125/CE)
CE Direttiva ErP (2009/125/CE)
CE Directiva ErP (2009/125/CE)

Angewandte Normen: EN 301489-17 V3.2.4
Applied Standards: EN 300328 V2.2.2
Normes appliquées: EN 62368-1:2014
Norme applicate: EN 62493:2010
Normas aplicadas: EN 55032:2015
EN 61000-3-2:2014
EN 61000-3-3:2013
EN 61547:2009
EN IEC 63000:2018

Name / Unterschrift:
Name / Signature:
Nom / Signature:
Nome / Firma:
Nombre / Firma:



Karsten Heinrich
Geschäftsführer / *Managing Director / Directeur général*
/Direttore generale / Director General

Berlin, 2026-02-12