



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX ULD 25.0002X** Page 1 of 4 [Certificate history:](#)
Issue 0 (2025-03-12)

Status: **Current** Issue No: 1

Date of Issue: 2025-07-28

Applicant: **Longvale Ltd.,**
Lancaster Park
Needwood
Burton-on-Trent
Staffordshire
DE13 9PD
United Kingdom

Equipment: **Limit Switch Boxes, SB-XP1 and SB-XP2 Series**

Optional accessory:

Type of Protection: **Flameproof "db", Dust Ignition Protection by Enclosure "tb"**

Marking: SB-XP1 Series:
Ex db IIB + H₂ T6...T4 Gb
Ex tb IIIC T85°C...T135°C Db

SB-XP2 Series:
Ex db IIC T6...T4 Gb
Ex tb IIIC T85°C...T135°C Db
-65°C to +120°C or -40°C to 75°C
See Annex for additional temperature information.

Approved for issue on behalf of the IECEx
Certification Body:

Katy A. Holdredge

Position:

Senior Staff Engineer

Signature:
(for printed version)

Date:
(for printed version)

2025-07-28

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
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Certificate issued by:

UL Solutions (Demko)
Borupvang 5A
Ballerup DK-2750
Denmark





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Manufacturer: **Longvale Ltd.,**
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Manufacturing
locations: **Longvale Ltd.,**
Lancaster Park
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This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-1:2014](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

[IEC 60079-31:2022](#) Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
Edition:3.0

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[DK/ULD/ExTR25.0002/00](#)

[DK/ULD/ExTR25.0002/01](#)

Quality Assessment Report:

[GB/SIR/QAR07.0013/16](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Limit Switchbox, SB-XP1 Series, are flameproof / dust-ignition proof enclosures containing up to four Ferro switches, up to six Reed switches, up to six mechanical switches or up to six Proximity sensors/switches, with or without optional electronic transmitter module and/or potentiometer, with terminals to connect remote mount Ex equipment. Limit switch box, SB-XP1 Series might be additionally provided with LED Indicator.

Limit switch box, SB-XP2 Series, are flameproof / dust-ignition proof enclosures containing up to four Ferro switches, up to four Reed switches, up to four mechanical switches or up to four Proximity sensors/switches, with or without optional electronic transmitter module and/or potentiometer, with terminals to connect remote mount equipment.

They are used to indicate the position of a linear or rotary valves and actuators, by means of electrical signal with optional visual indicator. They can be directly or via suitable bracketry mounted to powered / manual rotary or linear actuators or valves. The metallic enclosure of the equipment may be provided with up to four cable entries M20x1.5, M25x1.5 or 1/2" NPT, 3/4" NPT to accommodate suitable Ex certified cable entry devices.

Silicone seals provided:
IP66/IP67/IP68 (50m, 168h) in accordance with IEC 60079-0.

Nitrile seals provided:
IP66/IP67 in accordance with IEC 60079-0.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Flameproof joints are not intended to be repaired.
- Ambient temperature and Surface temperature – See installation instructions.
- Take care to prevent accumulation of electrostatic charges. See installation instructions.
- Use reduced shank fasteners with property A4 Class 80, M8x1.25p, stainless steel 316, 316L, 317L or Duplex Steel UNS S31803 or Super Duplex 254-SM0, UNS S31254.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1: Revision of product nomenclature and correction of typo errors within scheduled drawings. Update of standard edition from IEC 60079-31, Ed. 2 to IEC 60079-31, Ed. 3.

Annex:

[Annex to IECEx ULD 25.0002X Issue 1.pdf](#)



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TYPE DESIGNATION

Nomenclature for type SB-XP1:

SB	-	XP1	-	A	3B	T1	-	MS1	2	-	9	N	G	-	M22	-	***	X000001
I	-	II	-	III	IV	V	-	VI	VII	-	VIII	IX	X	-	XI	-	XII	XIII

I- Product Series:

SB – Switch Boxes

II- Product range:

XP1 – Limit switch

III- Material:

A – Aluminum Alloy A360 / ADC3

S – 316/316L Stainless Steel

T – 317/317L Stainless Steel

D – Duplex Steel

E – Super Duplex Steel

IV- Certification:

3B – ATEX/IECEX/UKCA Ex db, tb

B2 – Dual Marking ATEX/IECEX and cULus

D* – * Alphanumeric or numeric character signifies Dual certification with other global approvals

V- Transmitter:

00 – No Transmitter fitted

T*, H*, P*, F*, X* – Transmitter type

A*, B*, C*, D*, L* – Electronic circuit

*P – Potentiometer fitted

L or L – LED electronic module fitted

Where * = Alphanumeric or numeric character

VI- Switch Type:

Switch Designation	Max. Quantity (per model)	Description	Electrical rating
FS*, FSE*	4	Ferro switch SPDT (Optional LFM)	3A@24V dc, 4A@110/120V ac, 2A@230/240V ac
FD*, FDE*	4	Ferro switch DPDT (Optional LFM)	1A@24V dc, 3A@110/120V ac, 1.5@230/240V ac
MS*, ME*, MK*	6	Mechanical switch SPDT	10A@36V dc, 16A@110/120V ac, 16A@230/240V ac
MSZ*, MEZ*	6	Mechanical switch SPDT (Class 2 / LVLC)	24V ac, 60V dc, 100VA max
MD*, MF*	4	Mechanical switch DPDT	10A@36V dc, 16A@110/120V ac, 16A@230/240V ac
MDZ*, MFZ*	4	Mechanical switch DPDT (Class 2 / LVLC)	24V ac, 60V dc, 100VA max
R1*, RD*	6	Reed switch Rhodium SPDT (Optional LFM)	240V ac/dc max, 1A, 25W max



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Switch Designation	Max. Quantity (per model)	Description	Electrical rating
RA*, RF*	6	Reed switch Rhodium SPDT (Optional LFM)	<30V ac/dc max, 1A, 25W max
RB*, RF*	6	Reed switch Tungsten SPDT (Optional LFM)	<60V ac/dc max, 1A, 100W max
R3*, RE*	6	Reed switch Tungsten SPDT (Optional LFM)	240V ac/dc max, 3.5A, 100W max
E**	6	Inductive Sensor	<30V dc, 0.5A max
F**	6	Inductive Sensor	<60V dc, 0.5A max
N**	6	Prox sensor <30V options	30V dc max, 500mA max
	6	Prox sensor <60V options	60V dc max, 250mA max
NH*	6	Proximity sensor	250V ac/dc, 0.5A max

Where * or ** may be alphanumeric or number and signifies switch type used.

VII- Switch Quantity:

1 to 6

VIII- Temperature range:

* – Alphanumeric or numeric character signifies ambient temperature range between -65°C to +120°C
N – Only for Nitrile seals -40°C to +75°C max

IX- Drive Type:

* – may be one alphanumeric or numeric character to signify external drive form

X- Indicator:

* – may be one alphanumeric or numeric character to signify indicator colour / type

XI- Conduit entry and quantity:

N1* – 1/2" NPT

N3* – 3/4" NPT

N4* – 3/4" NPT and 1/2" NPT

M2* – M20

M5* – M25

M6* – M25 and M20

where * one numeric character between 1 and 4 to show conduit type quantity.

XII- Additional options (optional, not safety relevant):

Up to three optional alphanumeric or numeric characters.

Prefix: H*, V* = Terminal up to +95°C

Prefix: W*, Z* = Terminal up to +120°C

XIII- Custom number (optional, not safety relevant):

#***** – #one optional alphanumeric character followed by up to six optional numeric characters for non-standard product register.



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Nomenclature for type SB-XP2:

SB	-	XP2	-	A	3A	T1	-	MS1	2	-	9	N	G	-	M22	-	***	X000001
I	-	II	-	III	IV	V	-	VI	VII	-	VIII	IX	X	-	XI	-	XII	XIII

I- Product Series:

SB – Switch Boxes

II- Product range:

XP2 – Limit switch

III- Material:

A – Aluminum Alloy A360 / ADC3

S – 316/316L Stainless Steel

T – 317/317L Stainless Steel

D – Duplex Steel

E – Super Duplex Steel

IV- Certification:

3A – ATEX/IECEX/UKCA Ex db, tb

B1 – Dual Marking ATEX/IECEX and cULus

D* – * Alphanumeric or numeric character signifies Dual certification with other global approvals

V- Transmitter:

00 – No Transmitter fitted

T*, H*, P*, F*, X* = Transmitter type

A*, B*, C*, D*, L* = Electronic circuit, except LED electronic module

*P – Potentiometer fitted

Where * = Alphanumeric or numeric character.

VI- Switch Type:

Switch Designation	Max. Quantity (per model)	Description	Electrical rating
FS*, FSE*	4	Ferro switch SPDT (Optional LFM)	3A@24V dc, 4A@110/120V ac, 2A@230/240V ac
FD*, FDE*	4	Ferro switch DPDT (Optional LFM)	1A@24V dc, 3A@110/120V ac, 1.5@230/240V ac
MS*, ME*, MK*	4	Mechanical switch SPDT	10A@36V dc, 16A@110/120V ac, 16A@230/240V ac
MSZ*, MEZ*	4	Mechanical switch SPDT (Class 2 / LVLC)	24V ac, 60V dc, 100VA max
MD*, MF*	4	Mechanical switch DPDT	10A@36V dc, 16A@110/120V ac, 16A@230/240V ac
MDZ*, MFZ*	4	Mechanical switch DPDT (Class 2 / LVLC)	24V ac, 60V dc, 100VA max
R1*, RD*	4	Reed switch Rhodium SPDT (Optional LFM)	240V ac/dc max, 1A, 25W max
RA*, RF*	4	Reed switch Rhodium SPDT (Optional LFM)	<30V ac/dc max, 1A, 25W max
RB*, RF*	4	Reed switch Tungsten SPDT (Optional LFM)	<60V ac/dc max, 1A, 100W max



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Switch Designation	Max. Quantity (per model)	Description	Electrical rating
R3*, RE*	4	Reed switch Tungsten SPDT (Optional LFM)	240V ac/dc max, 3.5A, 100W max
E**	4	Inductive Sensor	<30V dc, 0.5A max
F**	4	Inductive Sensor	<60V dc, 0.5A max
N**	4	Prox sensor <30V options	30V dc max, 500mA max
	4	Prox sensor <60V options	60V dc max, 250mA max
NH*	4	Proximity sensor	250V ac/dc, 0.5A max

Where * or ** may be alphanumeric or number and signifies switch type reference number.

VII- Switch Quantity:

1 to 4

VIII- Temperature range:

* – Alphanumeric or numeric character signifies ambient temperature range between -65°C to +120°C
N – only for Nitrile seals -40°C to +75°C max

IX- Drive Type:

* – may be one alphanumeric or numeric character to signify external drive form

X- Indicator:

* – may be one alphanumeric or numeric character to signify indicator colour / type

XI- Conduit entry:

N1* – 1/2" NPT

N3* – 3/4" NPT

N4* – 3/4" NPT and 1/2" NPT

M2* – M20 x2

M5* – M25 x2

M6* – M25 x2 and M20 x2

X** – Any combination of the above (NPT and Metric entries).

where * one numeric character between 1 and 4 to show conduit type quantity.

XII- Additional options (optional, not safety relevant):

Up to three optional alphanumeric or numeric characters.

Prefix: H*, V* = Terminal up to +95°C

Prefix: W*, Z* = Terminal up to +120°C

XIII- Custom number (optional, not safety relevant):

#***** – #one optional alphanumeric character followed by up to six optional numeric characters for non-standard product register

PARAMETERS RELATING TO THE SAFETY

0-250V dc, 0.01-20A

0-250V ac, 0.01-20A



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Environmental Ratings:

The relationship between ambient temperature range, current rating and temperature class / Maximum surface temperature / T cable is as follows:

Model	Max. Current	Type of seal	Min. Ambient	Max. Ambient	T code / Max. Surface Temp.	T Cable
SB-XP1	10A	Silicone	-65°C	+79°C	T6 / T85°C	80°C
				+94°C	T5 / T100°C	95°C
				+120°C	T4 / T135°C	121°C
	15A			+79°C	T6 / T85°C	81°C
				+94°C	T5 / T100°C	96°C
				+120°C	T4 / T135°C	122°C
	20A			+76°C	T6 / T85°C	79°C
				+91°C	T5 / T100°C	94°C
				+120°C	T4 / T135°C	123°C
SB-XP2	10A	Silicone	-65°C	79°C	T6 / T85°C	79°C
				94°C	T5 / T100°C	94°C
				120°C	T4 / T135°C	120°C
	15A			79°C	T6 / T85°C	80°C
				94°C	T5 / T100°C	95°C
				120°C	T4 / T135°C	121°C
	20A			76°C	T6 / T85°C	81°C
				91°C	T5 / T100°C	96°C
				120°C	T4 / T135°C	125°C



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Model	Max. Current	Type of seal	Min. Ambient	Max. Ambient	T code / Max. Surface Temp.	T Cable	
SB-XP1	10A	Nitrile	-40°C	+75°C	T6 / T85°C	76°C	
				+75°C	T5 / T100°C	76°C	
				+75°C	T4 / T135°C	76°C	
	15A			+75°C	T6 / T85°C	77°C	
				+75°C	T5 / T100°C	77°C	
				+75°C	T4 / T135°C	77°C	
				20A	+75°C	T6 / T85°C	78°C
					+75°C	T5 / T100°C	78°C
					+75°C	T4 / T135°C	78°C
SB-XP2	10A	Nitrile	-40°C	+75°C	T6 / T85°C	75°C	
				+75°C	T5 / T100°C	75°C	
				+75°C	T4 / T135°C	75°C	
	15A			+75°C	T6 / T85°C	76°C	
				+75°C	T5 / T100°C	76°C	
				+75°C	T4 / T135°C	76°C	
	20A			+75°C	T6 / T85°C	80°C	
				+75°C	T5 / T100°C	80°C	
				+75°C	T4 / T135°C	80°C	

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MARKING

Marking has to be readable and indelible; it has to include the following indications:

Note: Part number SB-XP1-A3BT1-MS12-9NG-M22-X000001 and SB-XP2-A3AT1-MS12-9NG-M22-X000001 represents SB-XP1 and SB-XP2 series.

CE mark with NB number 2813 w/wo UKCA mark with NB number 0518 will be marked in the Approval / product logo areas highlighted on the label drawing where required.



Approval / Product	Longvale Ltd, England DE13 9PD	Approval / Product Logo
Part Number: SB-XP1-A3BT1-MS12-9NG-M22-X000001 UL 25 ATEX 3331X / IECEX ULD 25.0002X		S/N:*****/**/**
⚠ II 2G Ex db IIB+H2 T6/T5/T4 Gb; $-65^{\circ}\text{C} \leq T_a \leq +76^{\circ}\text{C}/+91^{\circ}\text{C}/+120^{\circ}\text{C}$ ⚠ II 2D Ex tb IIIC T85°C/T100°C/T135°C; $-65^{\circ}\text{C} \leq T_a \leq +76^{\circ}\text{C}/+91^{\circ}\text{C}/+120^{\circ}\text{C}$ Enclosure rating: 20A, 0-250VAC/DC Switch Rating 125/250Vac 15A; 36VDC 10A. Transmitter: 30Vdc, 1 Watt IP66/67/68; Conduit entries M20 WARNING - Do not open when an explosive atmosphere is present. Potential electrostatic charging hazard - see instructions.		

Typical Certification Label text position and logo position may vary.
 Marking to Stainless label is made by laser.
 Label maybe marked with any parameters within min and max limits.
 Conduit entry size maybe marked adjacent to entry, on certification label or in Instruction Manual.
 S/N: Denotes unique serial number

CE mark with NB number 2813 w/wo UKCA mark with NB number 0518 will be marked in the Approval / product logo areas highlighted on the label drawing where required.



Approval / Product Logo	Longvale Ltd, England DE13 9PD	Approval / Product Logo
Part Number: SB-XP2-A3AT1-MS12-9NG-M22-X000001 UL 25 ATEX 3331X / IECEX ULD 25.0002X		S/N:*****/**/**
⚠ II 2G Ex db IIC T6/T5/T4 Gb; $-65^{\circ}\text{C} \leq T_a \leq +76^{\circ}\text{C}/+91^{\circ}\text{C}/+120^{\circ}\text{C}$ ⚠ II 2D Ex tb IIIC T85°C/T100°C/T135°C; $-65^{\circ}\text{C} \leq T_a \leq +76^{\circ}\text{C}/+91^{\circ}\text{C}/+120^{\circ}\text{C}$ Enclosure rating 20A; 0-250Vac/dc Switch: 15A 125Vac/250Vac; 10A 30Vdc Transmitter: 30Vdc, 1 Watt IP66/67/68; Conduit entries M20 WARNING - Do not open when an explosive atmosphere is present. Potential electrostatic charging hazard - see instructions.		

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