

Terminal and Junction Boxes Ex e / Ex i with Return Flange, Stainless Steel

FXLS*.T

- Stainless Steel enclosure
- Installation in Zone 1, Zone 2, Zone 21 and Zone 22
- Installation in Class I, II, Division 2
- Installation in Class I Zone 1 and Class II Zone 22
- Ex eb, Ex ia and Ex tb certified
- 16 enclosure size options
- Return Flange Sealing provides Drain Channel
- Customizable configuration of terminals, cable entries and cable gland types as per specification
- Up to 3 gland plates
- Wide range of accessories available

Terminal and Junction Boxes Ex e / Ex i with Return Flange, Stainless Steel



Function

The FXLS series is a range of terminal boxes that can be equipped with various types and quantities of terminals and cable glands. The enclosures are manufactured from electropolished AISI 316L stainless steel as standard to provide excellent tarnish and corrosion resistance. This surface finish is ideally suited to meet hygienic requirements valid in pharmaceutical and food processing plants. All FXLS enclosures feature a return flange sealing method which prevents accumulated dirt, dust and moisture from entering the enclosure when the hinged lid is opened. Durable materials allows the terminal box to be used in ambient temperatures between -50 °C and +120 °C. For terminal and cable gland configuration options please see overleaf. Further configurations can be confirmed by your local Pepperl+Fuchs office.

Type Code

Enclosure type

FXL metal enclosure with return flange

Material

S stainless steel

Enclosure size

1 ... 11 see dimensions data table

Type of explosion protection

- 1** Ex e, Ex tb
- 2** U component approved
- 3** Ex ia, Ex tb
- 5** Ex ia / Ex e, Ex tb

Gland plate at face(s)

- 0** none
- 1** face B
- 3** faces B, C, D

Enclosure depth

standard depth, see dimensions data table

D increased depth

Type of solution

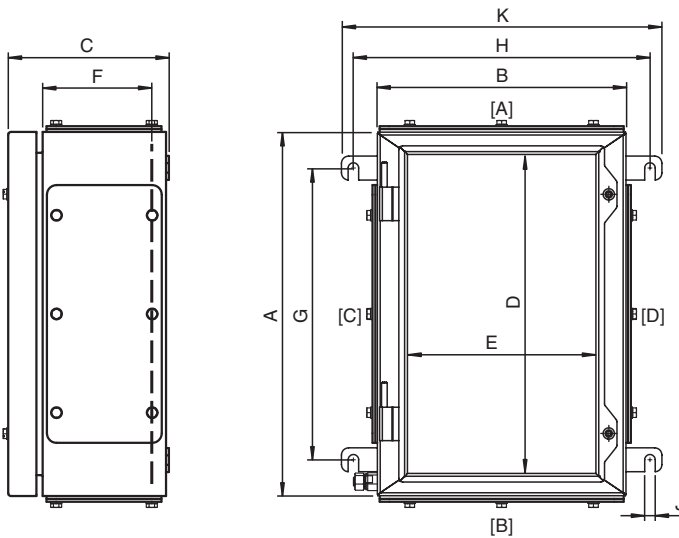
- T** terminal box
- U** empty enclosure

Variant number

Cxxxxxx - configured variants
Yxxxxxx - engineered variants

FXL	S	3	3	1	D	.T	-Yxxxxxx
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Example: Terminal box size 3 increased depth, for intrinsically safe circuits, gland plate at bottom face, in stainless steel



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Type Code

Dimension values see data table.

Image and drawing are generic for this device type and may deviate from the specific variant.

Legend	
A	Height
B	Width
C	Depth
D	Internal height
E	Internal width
F	Internal depth to surface mounting plate
G	Mounting holes distance, vertical
H	Mounting holes distance, horizontal
J	Mounting holes diameter
K	Maximum external dimension with mounting brackets
[A] ... [D]	Cable entry faces

Technical Data

Electrical specifications

Operating voltage 1100 V AC / DC max. , depending on size for ATEX / IECEx
600 V AC / DC max. for North American approvals

Operating current 350 A max. , depending on size and certification

Mechanical specifications

Enclosure cover fully detachable , concealed hinges

Cover fixing stainless steel A4 (V4A) hexagonal head screws , see data table

Cover seal one piece closed cell silicone

Degree of protection IP66 , Type 4X

Cable entry see data table

Terminal assembly

Number of rails see data table

Terminal type Standard see PDF datasheet, other terminal types optional

Number of terminals per rail see data table

Material

Enclosure 1.5 mm AISI 316L, (1.4404) stainless steel

Gland plate 3 mm AISI 316L, (1.4404) stainless steel

Finish electropolished

Mass see data table
valid for empty enclosure, will increase according to integrated components

Dimensions see data table

Grounding M10 internal/external brass grounding bolt
M6 internal stainless steel grounding bolt welded to lid
M6 internal stainless steel grounding bolt welded to enclosure body

Ambient conditions

Ambient temperature -40 ... 40 °C (-40 ... 104 °F) , optional -50 ... 120 °C (-58 ... 248 °F)

Data for application in connection with hazardous areas

EU-type examination certificate CML 16 ATEX 3008X

Marking
 Ⓢ II 2 GD
 Ex eb IIC T* Gb, Ex db eb IIC T* Gb, Ex tb IIIC T** Db or
 Ex ia IIC T* Gb, Ex tb IIIC T** Db or
 Ex eb IIC T* Gb, Ex ia IIC T* Gb, Ex tb IIIC T** Db
 T6/T80 °C @ Ta +40 °C
 T5/T95 °C @ Ta +55 °C
 T4/T125 °C @ Ta +85 °C
 T3/T160 °C @ Ta +120 °C

Maximum power dissipation see data table

International approvals

IECEx approval IECEx CML 16.0007X

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Technical Data

UKCA approval	CML 21 UKEX 41104X
ETL approval	
ETL certificate	Intertek 5003368
Approved for	Class I and II, Division 2 Class I, Zone 2, Class II, Zone 22
cETLus	according to UL 508A , UL 698A , UL 121201
Ambient temperature	-50 ... 60 °C (-58 ... 140 °F)
CCoE approval	PESO A/P/HQ/MH/104/4900 (P386871)
IA approval	MASC S/18-0004X
CCC approval	2020322303002519
Conformity	
Degree of protection	EN60529 and UL 50 / UL 50E
CE marking	0102
General information	
Ordering information	This terminal box will be delivered completely configured and assembled ready for use. For configuration details please contact customer service.
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com .
Accessories	
Optional accessories	Mounting plate M10 internal/external stainless steel grounding bolt M6 internal stainless steel grounding bolt welded to lid M6 internal stainless steel grounding bolt welded to bottom gland plate quarter-turn key locks engraved traffolyte tag label engraved AISI 316L stainless steel tag label color in-fill stainless steel tag label

Dimensions and Enclosure Details

Type	External dimensions [mm]				Internal dimensions [mm]			Mounting [mm]			Mass [kg]	Cover screws			Max. power dissipation [W]
	A	B	C	K	D	E	F	G	H	J		Mx	qty.	Torque [Nm]	
FXLS1*.T	229	152	145	227	182.5	85.5	109	154	202	11	4.2	M6	2	2	15.0
FXLS2*.T	260	260	165	335	213	193	129	185	310	11	5.8	M6	2	2	15.0
FXLS2*D.T	260	260	215	335	213	193	130	185	310	11	6.3	M6	2	2	15.0
FXLS3*.T	306	306	165	381	259	239	129	231	356	11	8.0	M6	2	2	21.0
FXLS3*D.T	306	306	215	381	259	239	179	231	356	11	8.8	M6	2	2	21.0
FXLS4*.T	380	260	165	335	333	193	129	305	310	11	8.3	M6	2	2	15.0
FXLS4*D.T	380	260	215	335	333	193	179	305	310	11	9.1	M6	2	2	15.0
FXLS5*.T	458	382	165	457	411	315	129	383	432	11	12.0	M6	2	2	29.0
FXLS5*D.T	458	382	215	457	411	315	179	383	432	11	13.0	M6	2	2	29.0
FXLS6*.T	480	480	165	555	433	413	129	405	530	11	14.0	M6	2	2	30.0
FXLS6*D.T	480	480	215	555	433	413	179	405	530	11	16.0	M6	2	2	30.0
FXLS7*.T	500	350	165	425	453	283	129	425	400	11	12.0	M6	3	2	21.0
FXLS7*D.T	500	350	215	425	453	283	179	425	400	11	13.0	M6	3	2	21.0
FXLS8*.T	620	450	165	525	573	383	129	545	500	11	16.0	M6	3	2	30.0
FXLS8*D.T	620	450	215	525	573	383	179	545	500	11	18.0	M6	3	2	30.0
FXLS9*.T	762	508	165	583	715	442	129	687	558	11	20.0	M6	3	2	41.7
FXLS9*D.T	762	508	215	583	715	442	179	687	558	11	22.0	M6	3	2	41.7
FXLS10*.T	914	610	215	685	867	543	179	839	660	11	30.0	M6	3	2	93.4
FXLS10*D.T	914	610	315	685	867	543	279	839	660	11	33.0	M6	3	2	93.4
FXLS11*.T	1177	777	225	852	1130	710	189	1102	827	11	45.0	M6	6	2	100.0
FXLS11*D.T	1177	777	315	852	1130	710	279	1102	827	11	49.0	M6	6	2	100.0

Mass is valid for empty enclosure, it will increase according to integrated components and cable glands

Terminal Configurations with Standard Terminals

Type	DIN-Rails vertical				DIN-Rails horizontal				Terminal type	Terminal capacity [mm ²]
	Number of rails	Usable length per rail [mm]	Terminals per rail	Terminals total	Number of rails	Usable length per rail [mm]	Terminals per rail	Terminals total		
FXLS1*.T	1	115	22	22	1	50	9	9	WDU	2.5
FXLS2*.T	2	170	32	64	2	165	31	62	WDU	2.5
FXLS2*D.T	2	170	32	64	2	165	31	62	WDU	2.5
FXLS3*.T	2	216	41	82	2	213	40	80	WDU	2.5
FXLS3*D.T	2	216	41	82	2	213	40	80	WDU	2.5
FXLS4*.T	2	290	55	110	2	167	32	64	WDU	2.5
FXLS4*D.T	2	290	55	110	2	167	32	64	WDU	2.5
FXLS5*.T	3	368	70	210	3	289	55	165	WDU	2.5
FXLS5*D.T	3	368	70	210	3	289	55	165	WDU	2.5
FXLS6*.T	4	390	75	300	4	387	74	296	WDU	2.5
FXLS6*D.T	4	390	75	300	4	387	74	296	WDU	2.5
FXLS7*.T	3	410	78	234	4	257	49	196	WDU	2.5
FXLS7*D.T	3	410	78	234	4	257	49	196	WDU	2.5
FXLS8*.T	3	530	101	303	5	357	68	340	WDU	2.5
FXLS8*D.T	3	530	101	303	5	357	68	340	WDU	2.5
FXLS9*.T	4	672	129	516	6	415	79	474	WDU	2.5
FXLS9*D.T	4	672	129	516	6	415	79	474	WDU	2.5

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Type	DIN-Rails vertical				DIN-Rails horizontal				Terminal type	Terminal capacity [mm ²]
	Number of rails	Usable length per rail [mm]	Terminals per rail	Terminals total	Number of rails	Usable length per rail [mm]	Terminals per rail	Terminals total		
FXLS10*.T	5	824	158	790	7	517	99	693	WDU	2.5
FXLS10*D.T	5	824	158	790	7	517	99	693	WDU	2.5
FXLS11*.T	6	1087	209	1254	9	684	131	1179	WDU	2.5
FXLS11*D.T	6	1087	209	1254	9	684	131	1179	WDU	2.5

For other terminal types and terminal capacities please contact Pepperl+Fuchs

Cable Entries max. Quantity per Size

Type	Cable entry area		Faces A and B					Faces C and D				
	Faces A and B	Faces C and D	M20	M25	M32	M40	M50	M20	M25	M32	M40	M50
FXLS1*.T	58 x 108	58 x 108	8	5	2	2	1	8	5	2	2	1
FXLS2*.T	80 x 215	80 x 146	23	14	10	4	3	15	8	6	3	2
FXLS2*D.T	130 x 215	130 x 146	37	24	15	8	6	27	16	9	5	4
FXLS3*.T	80 x 261	80 x 185	29	17	12	5	4	21	11	8	4	3
FXLS3*D.T	130 x 261	130 x 185	47	32	18	11	8	36	20	12	7	6
FXLS4*.T	80 x 215	80 x 229	23	14	10	4	3	24	14	10	5	4
FXLS4*D.T	130 x 215	130 x 229	37	24	15	8	6	40	28	15	9	6
FXLS5*.T	80 x 337	80 x 337	38	21	16	7	5	39	21	16	7	5
FXLS5*D.T	130 x 337	130 x 337	62	40	24	14	10	62	40	24	14	10
FXLS6*.T	80 x 435	80 x 359	48	27	20	9	7	39	23	18	7	6
FXLS6*D.T	130 x 435	130 x 359	80	52	30	18	14	65	44	27	15	12
FXLS7*.T	80 x 305	80 x 379	33	20	14	6	5	42	24	18	8	6
FXLS7*D.T	130 x 305	130 x 379	53	36	21	12	10	70	44	27	15	12
FXLS8*.T	80 x 407	80 x 464	45	26	20	8	7	51	30	22	10	8
FXLS8*D.T	130 x 407	130 x 464	73	48	30	17	12	85	56	33	20	14
FXLS9*.T	80 x 464	80 x 464	51	30	22	10	8	51	30	22	10	8
FXLS9*D.T	130 x 464	130 x 464	85	56	33	20	14	85	56	33	20	14
FXLS10*.T	130 x 564	130 x 700	105	70	42	24	18	130	88	51	30	22
FXLS10*D.T	230 x 564	230 x 700	210	119	74	43	30	260	147	100	55	44
FXLS11*.T	140 x 734	140 x 900	165	113	63	39	26	204	138	75	50	32
FXLS11*D.T	230 x 734	230 x 900	270	154	105	57	40	340	196	132	72	56

Cable gland standard type: polyamide Ex e cable glands

For other types of cable glands and combinations of different gland sizes please contact Pepperl+Fuchs