Brief Instructions

Terminal Boxes (F)XL*.T / SL*.T

ENG

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PEPPERL+FUCHS

Validity

Specific processes and instructions in this instruction manual require special provisions to guarantee the safety of the operating personnel.

Target Group/Personnel

Responsibility for planning, assembly, commissioning, operation, maintenance, and dismounting lies with the plant operator.

Mounting, installation, commissioning, operation, maintenance and dismounting of the device may only be carried out by appropriate trained and qualified personnel. The instruction manual must be read and understood.

Reference to Further Documentation

Observe laws, standards, and directives applicable to the intended use and the operating location. Observe Directive 1999/92/EC in relation to hazardous areas.

The corresponding datasheets, declarations of conformity, EC-type-examination certificates, certificates and control drawings if applicable (see datasheet) are an integral part of this document. You can find this information under www.pepperl-fuchs.com.

Mounting/Installation/Maintenance

Observe IEC/EN 60079-17 for maintenance and inspection.

Before opening the enclosure make sure that the built-in components are de-energized.

When energized, the enclosure may only be opened for maintenance, if only intrinsically safe circuits are used inside the enclosure.

Safety-relevant markings are found on the type label supplied. Ensure that the type label is present and legible. Take the ambient conditions into account.

The permitted ambient temperatures of the built-in components must not be exceeded.

If there is a defect, the device must be repaired by Pepperl+Fuchs.

To ensure the degree of protection:

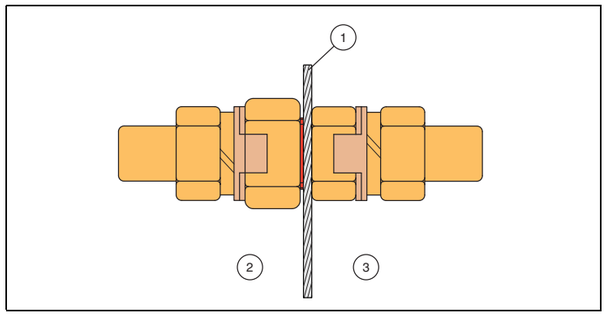
- The enclosure must not be damaged, distorted or corroded.
- All seals must be undamaged and correctly fitted.
- All screws of the enclosure/enclosure cover must be tightened with the appropriate torque.
- All cable glands must be suitably sized for the incoming cable diameters.
- All cable glands must be tightened with the appropriate torque.
- All unused cable glands must be sealed or plugged with corresponding sealing plugs, all unused cable entries have to be closed with appropriate stopping plugs.

If mounting the enclosure on concrete use expansion anchors. When mounting the enclosure to a steel framework use vibration resistant mounting material.

Ensure that external ground connections exist, are in good condition, and are not damaged or corroded.

In order to prevent condensation in the enclosure, use suitably certified breather drains.

When the internal/external ground bolt is supplied loose, the components should be fitted as shown in the figure below.



1	Enclosure wall
2	Enclosure exterior
3	Enclosure interior

If cable glands are needed for installation, the following points must be considered:

- The cable glands used must be suitably certified for the application.
- The temperature range of the cable glands must be chosen according to the application.
- The cable glands fitted must not reduce the degree of protection.

In order to guarantee the temperature classes, ensure that power dissipation is lower than the figure stated in the certificate and in below tables of max. connection capacity. Most of the power dissipation arises from current flowing in the cables.

Select suitable conductors in order to ensure that the maximum permitted temperature of the conductors fit to the maximum permitted ambient temperature of the terminal box.

Ensure that the terminals are in good condition, and are not damaged or corroded.

Use only one conductor per terminal.

Observe the tightening torque of the terminal screws.

Use the shortest possible cable lengths and avoid small core cross-sections.

Observe the minimum bending radius of the conductors.

Insulation must extend to within 1mm of the metalwork of the terminal.

When using stranded conductors, crimp wire end ferrules on the conductor ends.

Unused cables and connection lines must be either connected to terminals or securely tied down and isolated.

Insulation by tape alone is not permitted.

If cross connects are fitted, separation walls or protective barriers may be required to preserve clearance distances.

Modifications are permitted only if approved in this instruction manual.

When installing additional components, make sure that these components are listed in the EC-type-examination certificate of the terminal box.

Only use suitably certified terminals.

Do not install fuse terminals, relays, miniature circuit breakers, contactors etc. in the enclosure.

The installer is allowed to add terminals in accordance with the maximum permitted power dissipation shown in the connection capacity tables below.

Example:

Enclosure FXLS5* with 20 terminals WDU 2.5 (current load: 6 A) and 5 terminals WDU 10 (current load: 16 A).

Assumption:

Average conductor length: 0.5 m

Maximum permissible power loss:

29 W Pv = (0.242 W/m x 20 x 2 x 0.5 m) + (0.43 W/m x 5 x 2 x 0.5 m)
= 4.84 W + 2.15 W = 6.99 W Pv = 6.99 W

Special Conditions for Safe Use

Keep the separation distances between all non-intrinsically safe circuits and intrinsically safe circuits according to IEC/EN 60079-14.

Technical Specifications

Dissipation of copper cables in W/m

	Current (A)									
Cable CSA	**1**	**2**	**4**	**6**	**10**	**16**	**20**	**25**	**32**	**40**
1 mm²	0.0168	0.0672	0.269	0.605	1.68	4.3	-	-	-	-
2.5 mm²	0.00672	0.0269	0.108	0.242	0.672	1.72	2.69	4.2	-	-
4 mm²	0.0042	0.0168	0.067	0.151	0.42	1.08	1.68	2.63	4.3	-
6 mm²	0.0028	0.0112	0.045	0.101	0.28	0.717	1.12	1.75	2.87	4.48
10 mm²	0.00168	0.00672	0.027	0.061	0.168	0.43	0.67	1.05	1.72	2.69

Types	see type code table	
Hazardous Area		
ATEX certificate number	SIRA 99 ATEX 3199	
IECEx certificate number	IECEx SIR 06.0074	
CE number	CE 0102	
Certification coding for ATEX/IECEx		
*L*1*.T Increased safety terminal enclosure	Ex II 2 GD	Ex e IIC T* Gb Ex tb IIIC T** Db
*L*3*.T Intrinsic safety terminal enclosure	Ex II 2 GD	Ex ia IIC T* Gb Ex tb IIIC T** Db
*L*5*.T Increased safety and intrinsic safety terminal enclosure	Ex II 2 GD	Ex e IIC T* Gb Ex ia IIC T* Gb Ex tb IIIC T** Db
Ambient Conditions		
Gas/dust temperature class (T*/T**)	T6/T80 °C @ Ta+40 °C T5/T95 °C @ Ta+55 °C (terminal insulation must be suitable for 120 °C) T4/T130 °C @ Ta+85 °C (terminal insulation must be suitable for 145 °C) T3/T160 °C @ Ta+120 °C (terminal insulation must be suitable for 180 °C) **Note: the temperature which a terminal is suitable for is 20 °C higher than that for which it is certified**	
Ambient temperature	-40 ... 40 °C optional -50 ... 120 °C: ■ below -40 °C with appropriate cable glands ■ above 40 °C with ceramic terminals	
IP rating	IP66 (*L*11**, *L*11**D: IP54)	
Maximum internal power dissipation (MDP)	Dependent on enclosure size - see certification label	
Mechanical		
Material		
Stainless steel models	AISI 316L	
Mild steel models	AISI 1018 (CR4)	
Finish		
Stainless steel models	Electropolished	
Mild steel models	Powder coated	
Cover screw torque	2 Nm	
Electrical		
Maximum voltage	Dependent on terminals and equipment fitted, but maximum must not exceed 1100 V AC. See certification label.	
Maximum current	Dependent on terminals, cables and equipment fitted, but maximum must not exceed 350 A.	
Conformity	EN 60079-0:2012 EN 60079-7: 2007 EN 60079-11:2012 EN 60079-31: 2009 EN 60529 IEC 60079-0: Ed 5 IEC 60079-7: Ed 4 IEC 60079-11: Ed 5 IEC 60079-31: Ed 1	

Max. Connection Capacity

Max. Connection Capacity for (F)XL* Enclosures

Max. number of conductors in relation to the cross-section and the permissible continuous current, based on terminal type WDU.

Enclosure (F)XL*1 (P_{max} 15 W):

(F)XL*1 maximum permitted power dissipation to be built in: 15 W															
	CSA [mm²]														
Current [A]	0.5	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	150	240
3	56	56	56	56	56	46	36	28	0	0	0	0	0	0	N/A	N/A
6	56	56	56	56	56	46	36	28	0	0	0	0	0	0	N/A	N/A
10	N/A	N/A	54	56	56	46	36	28	0	0	0	0	0	0	N/A	N/A
16	N/A	N/A	N/A	31	52	46	36	28	0	0	0	0	0	0	N/A	N/A
20	N/A	N/A	N/A	N/A	33	46	36	28	0	0	0	0	0	0	N/A	N/A
25	N/A	N/A	N/A	N/A	N/A	34	36	28	0	0	0	0	0	0	N/A	N/A
35	N/A	N/A	N/A	N/A	N/A	N/A	26	28	0	0	0	0	0	0	N/A	N/A
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	21	0	0	0	0	0	0	N/A	N/A
63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	N/A	N/A
80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	N/A	N/A
100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	N/A
125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A
160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A
200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A
250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Enclosure (F)XL*2 (P_{max} 15 W)

(F)XL*2 maximum permitted power dissipation to be built in: 15 W															
	CSA [mm²]														
Current [A]	0.5	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	150	240
3	132	132	132	132	132	108	84	34	28	20	0	0	0	0	N/A	N/A
6	54	82	109	132	132	108	84	34	28	20	0	0	0	0	N/A	N/A
10	N/A	N/A	39	59	98	108	84	34	28	20	0	0	0	0	N/A	N/A
16	N/A	N/A	N/A	23	38	61	84	34	28	20	0	0	0	0	N/A	N/A
20	N/A	N/A	N/A	N/A	24	39	59	34	28	20	0	0	0	0	N/A	N/A
25	N/A	N/A	N/A	N/A	N/A	25	37	34	28	20	0	0	0	0	N/A	N/A
35	N/A	N/A	N/A	N/A	N/A	N/A	19	32	28	20	0	0	0	0	N/A	N/A
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15	25	20	0	0	0	0	N/A	N/A
63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15	20	0	0	0	0	N/A	N/A
80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15	0	0	0	0	N/A	N/A
100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	N/A
125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A
160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A
200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A
250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Enclosure (F)XL*3 (P_{max} 21 W)

(F)XL*3 maximum permitted power dissipation to be built in: 21 W															
	CSA [mm²]														
Current [A]	0.5	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	150	240
3	172	172	172	172	172	144	108	88	72	52	0	0	0	0	N/A	N/A
6	67	101	135	172	172	144	108	88	72	52	0	0	0	0	N/A	N/A
10	N/A	N/A	48	72	121	144	108	88	72	52	0	0	0	0	N/A	N/A
16	N/A	N/A	N/A	28	47	76	108	88	72	52	0	0	0	0	N/A	N/A
20	N/A	N/A	N/A	N/A	30	48	72	88	72	52	0	0	0	0	N/A	N/A
25	N/A	N/A	N/A	N/A	N/A	31	46	77	72	52	0	0	0	0	N/A	N/A
35	N/A	N/A	N/A	N/A	N/A	N/A	23	39	63	52	0	0	0	0	N/A	N/A
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19	31	48	0	0	0	0	N/A	N/A
63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19	30	0	0	0	0	N/A	N/A
80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19	0	0	0	0	N/A	N/A
100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	N/A
125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A
160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A
200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A
250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Enclosure (F)XL*4 (P_{max} 15 W)

(F)XL*4 maximum permitted power dissipation to be built in: 15 W																
	CSA [mm²]															
Current [A]	0.5	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150
3	183	228	228	228	228	192	148	58	48	36	0	0	0	0	0	0
6	45	68	91	137	228	192	148	58	48	36	0	0	0	0	0	0
10	N/A	N/A	33	49	82	132	148	58	48	36	0	0	0	0	0	0
16	N/A	N/A	N/A	19	32	51	77	58	48	36	0	0	0	0	0	0
20	N/A	N/A	N/A	N/A	20	33	49	58	48	36	0	0	0	0	0	0
25	N/A	N/A	N/A	N/A	N/A	21	31	52	48	36	0	0	0	0	0	0
35	N/A	N/A	N/A	N/A	N/A	N/A	16	26	43	36	0	0	0	0	0	0
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13	21	33	0	0	0	0	0	0
63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13	20	0	0	0	0	0	0
80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12	0	0	0	0	0	0
100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0
125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0
160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0
200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0
250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Enclosure (F)XL*7 (P_{max} 21 W)

(F)XL*7 maximum permitted power dissipation to be built in: 21 W																
	CSA [mm²]															
Current [A]	0.5	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	150	240
3	201	302	403	492	492	408	212	168	140	104	0	0	0	0	N/A	N/A
6	50	75	100	151	252	403	212	168	140	104	0	0	0	0	N/A	N/A
10	N/A	N/A	36	54	90	145	212	168	140	104	0	0	0	0	N/A	N/A
16	N/A	N/A	N/A	21	35	56	85	141	140	104	0	0	0	0	N/A	N/A
20	N/A	N/A	N/A	N/A	22	36	54	90	140	104	0	0	0	0	N/A	N/A
25	N/A	N/A	N/A	N/A	N/A	23	34	58	93	104	0	0	0	0	N/A	N/A
35	N/A	N/A	N/A	N/A	N/A	N/A	17	29	47	74	0	0	0	0	N/A	N/A
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14	23	36	0	0	0	0	N/A	N/A
63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14	22	0	0	0	0	N/A	N/A
80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14	0	0	0	0	N/A	N/A
100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	N/A
125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A
160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A
200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A
250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Enclosure (F)XL*10 (P_{max} 93.4 W)

(F)XL*10 maximum permitted power dissipation to be built in: 93.4 W																
	CSA [mm²]															
Current [A]	0.5	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	150	240
3	508	762	1016	1524	1650	1380	1060	680	426	312	312	180	164	124	N/A	N/A
6	127	190	254	381	635	1016	1060	680	426	312	312	180	164	124	N/A	N/A
10	N/A	N/A	91	137	228	365	548	680	426	312	312	180	164	124	N/A	N/A
16	N/A	N/A	N/A	53	89	142	214	357	426	312	312	180	164	124	N/A	N/A
20	N/A	N/A	N/A	N/A	57	91	137	228	365	312	312	180	164	124	N/A	N/A
25	N/A	N/A	N/A	N/A	N/A	58	87	146	234	312	312	180	164	124	N/A	N/A
35	N/A	N/A	N/A	N/A	N/A	N/A	44	74	119	186	261	180	164	124	N/A	N/A
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	36	58	91	128	180	164	124	N/A	N/A
63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	36	57	80	115	161	124	N/A	N/A
80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	35	50	71	100	124	N/A	N/A
100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	32	45	64	86	N/A	N/A
125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	29	40	55	N/A	N/A
160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25	33	N/A	N/A
200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	21	N/A	N/A
250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Enclosure SL*2 (P_{max} 9 W)

SL*2 maximum permitted power dissipation to be built in: 9 W																
	CSA [mm²]															
Current[A]	0.5	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	150	240
3	26	26	26	26	26	22	16	0	0	0	0	0	0	0	N/A	N/A
6	26	26	26	26	26	22	16	0	0	0	0	0	0	0	N/A	N/A
10	N/A	N/A	26	26	26	22	16	0	0	0	0	0	0	0	N/A	N/A
16	N/A	N/A	N/A	26	26	22	16	0	0	0	0	0	0	0	N/A	N/A
20	N/A	N/A	N/A	N/A	26	22	16	0	0	0	0	0	0	0	N/A	N/A
25	N/A	N/A	N/A	N/A	N/A	22	16	0	0	0	0	0	0	0	N/A	N/A
35	N/A	N/A	N/A	N/A	N/A	N/A	16	0	0	0	0	0	0	0	N/A	N/A
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	N/A	N/A
63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	N/A	N/A
80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	N/A	N/A
100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	N/A
125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A
160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A
200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A
250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Enclosure (F)XL*5 (P_{max} 29 W)

(F)XL*5 maximum permitted power dissipation to be built in: 29 W																
	CSA [mm²]															
Current [A]	0.5	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	150	240
3	284	288	288	288	288	240	184	148	124	92	0	0	0	0	N/A	N/A
6	71	106	142	213	288	240	184	148	124	92	0	0	0	0	N/A	N/A
10	N/A	N/A	51	76	128	204	184	148	124	92	0	0	0	0	N/A	N/A
16	N/A	N/A	N/A	30	50	80	120	148	124	92	0	0	0	0	N/A	N/A
20	N/A	N/A	N/A	N/A	32	51	76	128	124	92	0	0	0	0	N/A	N/A
25	N/A	N/A	N/A	N/A	N/A	32	49	81	124	92	0	0	0	0	N/A	N/A
35	N/A	N/A	N/A	N/A	N/A	N/A	25	41	66	92	0	0	0	0	N/A	N/A
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20	32	51	0	0	0	0	N/A	N/A
63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20	32	0	0	0	0	N/A	N/A
80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20	0	0	0	0	N/A	N/A
100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	N/A
125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A
160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A
200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A
250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Enclosure (F)XL*8 (P_{max} 30 W)

(F)XL*8 maximum permitted power dissipation to be built in: 30 W																
	CSA [mm²]															
Current [A]	0.5	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150
3	234	351	469	636	636	534	408	330	180	136	0	0	0	0	0	0
6	58	87	117	175	293	469	408	330	180	136	0	0	0	0	0	0
10	N/A	N/A	42	63	105	168	253	330	180	136	0	0	0	0	0	0
16	N/A	N/A	N/A	24	41	65	98	164	180	136	0	0	0	0	0	0
20	N/A	N/A	N/A	N/A	26	42	63	105	168	136	0	0	0	0	0	0
25	N/A	N/A	N/A	N/A	N/A	27	40	67	108	136	0	0	0	0	0	0
35	N/A	N/A	N/A	N/A	N/A	N/A	20	34	55	86	0	0	0	0	0	0
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	16	27	42	0	0	0	0	0	0
63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	17	26	0	0	0	0	0	0
80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	16	0	0	0	0	0	0
100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0
125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0
160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0
200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0
250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Enclosure (F)XL*11 (P_{max} 100 W)

(F)XL*11 maximum permitted power dissipation to be built in: 100 W																
	CSA [mm²]															
Current [A]	0.5	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	150	240
3	430	645	861	1291	2152	2148	1656	1100	920	680	408	236	212	160	N/A	N/A
6	107	161	215	322	538	861	1291	1100	920	680	408	236	212	160	N/A	N/A
10	N/A	N/A	77	116	193	309	464	774	920	680	408	236	212	160	N/A	N/A
16	N/A	N/A	N/A	45	75	121	181	302	484	680	408	236	212	160	N/A	N/A
20	N/A	N/A	N/A	N/A	48	77	116	193	309	484	408	236	212	160	N/A	N/A
25	N/A	N/A	N/A	N/A	N/A	49	74	123	198	309	408	236	212	160	N/A	N/A
35	N/A	N/A	N/A	N/A	N/A	N/A	37	63	101	158	221	236	212	160	N/A	N/A
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30	49	77	108	154	212	160	N/A	N/A
63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31	48	68	97	136	160	N/A	N/A
80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30	42	60	84	115	N/A	N/A
100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	27	38	54	73	N/A	N/A
125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24	34	47	N/A	N/A
160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	21	28	N/A	N/A
200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18	N/A	N/A
250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Enclosure SL*3 (P_{max} 9 W)

SL*3 maximum permitted power dissipation to be built in: 9 W																
	CSA [mm²]															
Current [A]	0.5	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	150	240
3	36	36	36	36	36	30	24	0	0	0	0	0	0	0	N/A	N/A
6	36	36	36	36	36	30	24	0	0	0	0	0	0	0	N/A	N/A
10	N/A	N/A	36	36	36	30	24	0	0	0	0	0	0	0	N/A	N/A
16	N/A	N/A	N/A	28	36	30	24	0	0	0	0	0	0	0	N/A	N/A
20	N/A	N/A	N/A	N/A	30	30	24	0	0	0	0	0	0	0	N/A	N/A
25	N/A	N/A	N/A	N/A	N/A	30	24	0	0	0	0	0	0	0	N/A	N/A
35	N/A	N/A	N/A	N/A	N/A	N/A	23	0	0	0	0	0	0	0	N/A	N/A
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	N/A	N/A
63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	N/A	N/A
80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	N/A	N/A
100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	N/A
125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A
160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A
200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A
250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Enclosure (F)XL*6 (P_{max} 30 W)

(F)XL*6 maximum permitted power dissipation to be built in: 30 W																
	CSA [mm²]															
Current [A]	0.5	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	150	240
3	262	393	462	462	462	384	300	234	198	144	0	0	0	0	N/A	N/A
6	65	98	131	196	327	384	300	234	198	144	0	0	0	0	N/A	N/A
10	N/A	N/A	47	70	117	188	283	234	198	144	0	0	0	0	N/A	N/A
16	N/A	N/A	N/A	27	46	73	110	184	198	144	0	0	0	0	N/A	N/A
20	N/A	N/A	N/A	N/A	29	47	70	117	188	144	0	0	0	0	N/A	N/A
25	N/A	N/A	N/A	N/A	N/A	30	45	75	120	144	0	0	0	0	N/A	N/A
35	N/A	N/A	N/A	N/A	N/A	N/A	23	38	61	96	0	0	0	0	N/A	N/A
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18	30	47	0	0	0	0	N/A	N/A
63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19	29	0	0	0	0	N/A	N/A
80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18	0	0	0	0	N/A	N/A
100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	N/A
125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A
160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A
200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A
250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Enclosure (F)XL*9 (P_{max} 41.7 W)

(F)XL*9 maximum permitted power dissipation to be built in: 41.7 W																
	CSA [mm²]															
Current [A]	0.5	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	150	240
3	275	413	551	827	1088	904	696	420	348	258	258	148	132	100	N/A	N/A
6	68	103	137	206	344	551	696	420	348	258	258	148	132	100	N/A	N/A
10	N/A	N/A	49	74	124	198	297	420	348	258	258	148	132	100	N/A	N/A
16	N/A	N/A	N/A	29	48	77	116	193	310	258	258	148	132	100	N/A	N/A
20	N/A	N/A	N/A	N/A	31	49	74	124	198	258	258	148	132	100	N/A	N/A
25	N/A	N/A	N/A	N/A	N/A	31	47	79	127	198	258	148	132	100	N/A	N/A
35	N/A	N/A	N/A	N/A	N/A	N/A	24	40	64	101	141	148	132	100	N/A	N/A
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19	31	49	69	99	132	100	N/A	N/A
63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20	31	43	62	87	100	N/A	N/A
80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19	27	38	54	73	N/A	N/A
100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	17	24	34	47	N/A	N/A
125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15	22	30	N/A	N/A
160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13	18	N/A	N/A
200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11	N/A	N/A
250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Max. Connection Capacity for SL* Enclosures

Max. number of conductors in relation to the cross-section and the permissible continuous current, based on terminal type WDU (SL1 based on terminal type AKZ).

Enclosure SL*1 (P_{max} 9 W)

SL*1 maximum permitted power dissipation to be built in: 9 W																
	CSA [mm²]															
Current [A]	0.5	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	150	240
3	16	16	16	16	16	0	0	0	0	0	0	0	0	0	N/A	N/A
6	16	16	16	16	16	0	0	0	0	0	0	0	0	0	N/A	N/A
10	N/A	N/A	16	16	16	0	0	0	0	0	0	0	0	0	N/A	N/A
16	N/A	N/A	N/A	16	16	0	0	0	0	0	0	0	0	0	N/A	N/A
20	N/A	N/A	N/A	N/A	16	0	0	0	0	0	0	0	0	0	N/A	N/A
25	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0	N/A	N/A
35	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	N/A	N/A
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	N/A	N/A
63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	N/A	N/A
80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	N/A	N/A
100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	N/A
125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A
160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A
200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A
250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Enclosure SL*4 (P_{max} 11 W)

SL*4 maximum permitted power dissipation to be built in: 11 W																
	CSA [mm²]															
Current [A]	0.5	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	150	240
3	36	36	36	36	36	30	24	18	14	10	0	0	0	0	N/A	N/A
6	36	36	36	36	36	30	24	18	14	10	0	0	0	0	N/A	N/A
10	N/A	N/A	36	36	36	30	24	18	14	10	0	0	0	0	N/A	N/A
16	N/A	N/A	N/A	31	36	30	24	18	14	10	0	0	0	0	N/A	N/A
20	N/A	N/A	N/A	N/A	33	30	24	18	14	10	0	0	0	0	N/A	N/A
25	N/A	N/A	N/A	N/A	N/A	30	24	18	14	10	0	0	0	0	N/A	N/A
35	N/A	N/A	N/A	N/A	N/A	N/A	24	18	14	10	0	0	0	0	N/A	N/A
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18	14	10	0	0	0	0	N/A	N/A
63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14	10	0	0	0	0	N/A	N/A
80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10	0	0	0	0	N/A	N/A
100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	N/A
125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A
160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A
200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A
250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Enclosure SL*5 (P_{max} 11 W)

SL*5 maximum permitted power dissipation to be built in: 11 W																
	CSA [mm²]															
Current [A]	0.5	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	150	240
3	46	46	46	46	46	38	30	0	0	0	0	0	0	0	N/A	N/A
6	46	46	46	46	46	38	30	0	0	0	0	0	0	0	N/A	N/A
10	N/A	N/A	46	46	46	38	30	0	0	0	0	0	0	0	N/A	N/A
16	N/A	N/A	N/A	27	46	38	30	0	0	0	0	0	0	0	N/A	N/A
20	N/A	N/A	N/A	N/A	29	38	30	0	0	0	0	0	0	0	N/A	N/A
25	N/A	N/A	N/A	N/A	N/A	30	30	0	0	0	0	0	0	0	N/A	N/A
35	N/A	N/A	N/A	N/A	N/A	N/A	23	0	0	0	0	0	0	0	N/A	N/A
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	N/A	N/A
63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	N/A	N/A
80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	N/A	N/A
100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	N/A
125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A
160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A
200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A
250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Enclosure SL*6 (P_{max} 13 W)

SL*6 maximum permitted power dissipation to be built in: 13 W																
	CSA [mm²]															
Curent [A]	0.5	0.75	1	1.5	2.5	4	6	10	16	25	35	50	70	95	150	240
3	46	46	46	46	46	38	30	0	0	0	0	0	0	0	N/A	N/A
6	46	46	46	46	46	38	30	0	0	0	0	0	0	0	N/A	N/A
10	N/A	N/A	46	46	46	38	30	0	0	0	0	0	0	0	N/A	N/A
16	N/A	N/A	N/A	29	46	38	30	0	0	0	0	0	0	0	N/A	N/A
20	N/A	N/A	N/A	N/A	31	38	30	0	0	0	0	0	0	0	N/A	N/A
25	N/A	N/A	N/A	N/A	N/A	32	30	0	0	0	0	0	0	0	N/A	N/A
35	N/A	N/A	N/A	N/A	N/A	N/A	24	0	0	0	0	0	0	0	N/A	N/A
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	N/A	N/A
63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	N/A	N/A
80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	N/A	N/A
100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	N/A
125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	N/A	N/A
160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	N/A	N/A
200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A
250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Type Code

Enclosure Type								
FXL	Metal enclosure with return flange							
XL	Metal enclosure							
SL	Metal enclosure							
	Material							
	M	Mild steel						
	S	Stainless steel						
		Enclosure Size						
		nn	Enclosure size from standard range					
			Type of Explosion Protection					
			0	non-Ex application				
			1	Ex e, Ex tb				
			3	Ex ia, Ex tb				
			5	Ex ia / Ex e, Ex tb				
				Gland Plate at Face(s)				
				0	None			
				1	Face B			
				2	Faces A, B			
				3	Faces B, C, D			
				4	Faces A, B, C, D			
					SL versions: no gland plates available			
					Enclosure Depth			
					nn	Enclosure depth from standard range		
						Type of Solution		
						T	Terminal box	
							Variant Number	
							Cxxxxxx	Configured variants
							Yxxxxxx	Engineered variants

Example:

FXL	S	2	1	1	D	.T	-C123456

Terminal box stainless steel with return flange, size 2, certified Ex e and Ex tb, gland plate on face B (bottom), enclosure depth D, configured variant