

Features

- Aluminum or stainless steel enclosures Ex d
- Stainless steel enclosures Ex e
- Suitable for operation in Zones 1, 2, 21 and 22, gas groups IIB+H₂ and IIC
- Certified Ex de and Ex tb
- 13 enclosure size options Ex d IIB+H₂
4 enclosure size options Ex d IIC
- Integration of electrical components and control elements in Ex d enclosures as per customer specification
- Various viewing window options for Ex d enclosures
- Wide choice of freely configurable terminals and operating elements in Ex e enclosures

Assembly



Function

Ex d and Ex e control and distribution panels are combined in an efficient, flanged assembly that provides improved functionality. Normal industrial electrical components are installed in the Ex d part of the assembly, while certified Ex e components like LED indicators, pushbuttons, control switches, ammeters, and connection terminals are installed in the Ex e enclosure, which is easy to access. During field installation, cables are easily connected inside the Ex e enclosure with Ex e cable glands and the appropriate terminals. This avoids the need for field-installed Ex d cable glands, or even barrier glands, and enables safe operation and easy maintenance of the complete assembly.

Type code / model number

Type

FP flanged panel

:		Ex d enclosure type	
:	EJB*	EJB type in aluminum, Ex d IIB+H ₂ (* = enclosure size, see selection table)	
:	EJBX*	EJB type in stainless steel, Ex d IIB+H ₂ (* = enclosure size, see selection table)	
:	GUB	GUB type in aluminum, Ex d IIC	
:	GUBX	GUB type in stainless steel, Ex d IIC	
:		EJB, GUB enclosure variant	
:	:	standard variant	
:	:	W	variant with viewing window (see individual data sheets)
:	:	E	variant with extension (GUB only, see individual data sheets)
:	:	WE	variant with window and extension (GUB only, see individual data sheets)
:		GUB enclosure size (ASM, EJB sizes see enclosure type)	
:	:	:	* see selection table
:		Ex e enclosure type	
:	:	FS	stainless steel enclosure with return flange
:		Ex e enclosure size	
:	:	:	* see selection table
:		Ex e enclosure positioning	
:	:	:	below Ex d enclosure
:	:	T	on top of Ex d enclosure
:	:	L	left of Ex d enclosure
:		Variant number	
:	:	:	Yxxxxxx

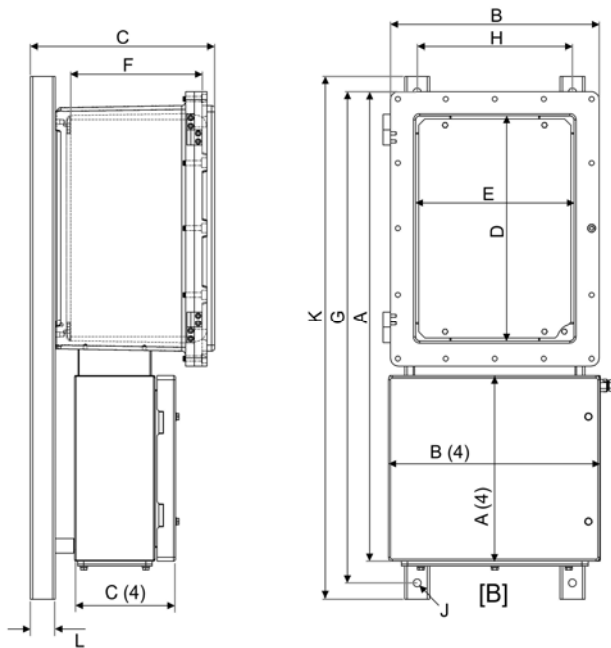
FP.			.	FS		-Yxxxxxx	Examples see overleaf
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Release date 2018-04-10 T1172061

Type Code Examples

FP.	EJBX20A	W3	.	FS	08B	T	-Y123456	Example
Example: Ex d enclosure type EJB in stainless steel, size 20A, with rectangular window size 3, combined with Ex e enclosure in stainless steel, size 08B, positioned on top of Ex d enclosure								
FP.	GUB	WE	3L	.	FS	04B	-Y123456	Example
Example: Ex d enclosure type GUB in aluminum, with window and extension, size 3L, combined with Ex e enclosure in stainless steel, size 04B, positioned below Ex d enclosure								

Dimensions for Control and Distribution Panel Selection Table

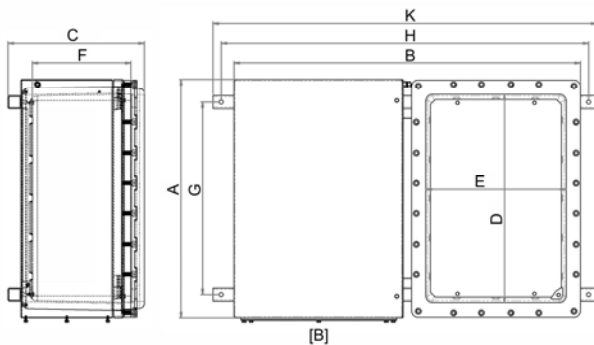


Legend

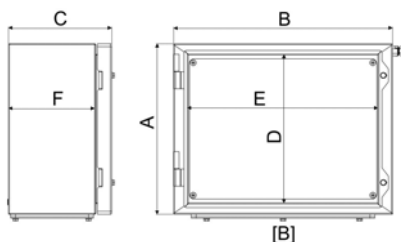
- A - Maximum external dimension, vertical
- B - Maximum external dimension, horizontal
- C - Maximum external dimension, depth including frame
- D - Internal dimension of Ex d enclosure, vertical
- E - Internal dimension of Ex d enclosure, horizontal
- F - Internal depth to surface of mounting plate
- A (4) ... F (4) - Dimensions of FS* Ex e enclosure
- G - Mounting holes center
- H - Mounting holes center
- J - Mounting holes diameter
- K - Maximum external dimension with mounting frame
- L - Depth of frame = 40 mm
- [B] - Cable entry face, Ex e enclosure

For details see selection table

Dimensions with Enclosures Side by Side: FP.EJB*.FS*L



Dimensions Ex e Enclosure FS* (4)



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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

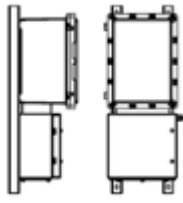
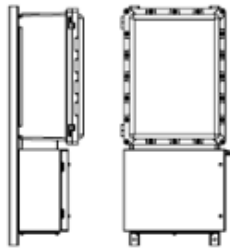
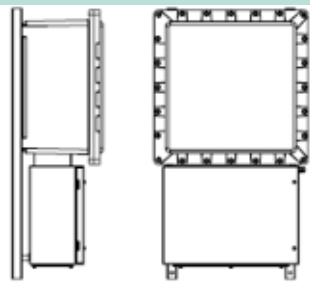
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Control and Distribution Panel Selection Table

Type	Dimensions overall (1) [mm]				Dimensions internal (2) [mm]				Mounting [mm]	Mass (3)	Sketch (1)	
	A	B	C	K	D	E	F	G				
FP. EJB8B*.FS02B	642	272	268	732	305	205	189	682	200	12,5	29,6	
EJBX8B*.FS02B					300	200	195					
Ex e: FS02B (4)	250	270	165	n.a.	203	209	145					
Max. power dissipation of Ex d enclosure at T4: 236 W Gas group Ex d: IIB+H ₂ Ambient temperature min.: -50 °C max.: 60 °C												
FP. EJB10B*.FS04B	761	336	297	846	372	262	217	796	250	12,5	39,8	
EJBX10B*.FS04B					370	260	225					
Ex e: FS04B (4)	300	340	165	n.a.	253	279	145					
Max. power dissipation of Ex d enclosure at T4: 353 W Gas group Ex d: IIB+H ₂ Ambient temperature min.: -50 °C max.: 60 °C												
FP. EJB15A*.FS05B	950	430	316	1050	500	350	221	1000	340	12,5	71,3	
EJBX15A*.FS05B							220					
Ex e: FS05B (4)	350	430	215	n.a.	303	369	195					
Max. power dissipation of Ex d enclosure at T4: 540 W Gas group Ex d: IIB+H ₂ Ambient temperature min.: -50 °C max.: 60 °C												
FP. EJB15A*.FS05C	1150	430	316	1250	500	350	221	1200	340	12,5	77	
EJBX15A*.FS05C							220					
Ex e: FS05C (4)	550	430	215	n.a.	503	369	195					
Max. power dissipation of Ex d enclosure at T4: 540 W Gas group Ex d: IIB+H ₂ Ambient temperature min.: -50 °C max.: 60 °C												
FP. EJB17Q*.FS07B	1037	630	372	1103	500	500	278	1053	483	12,5	110	
EJBX17Q*.FS07B							270					
Ex e: FS07B (4)	400	555	225	n.a.	353	494	205					
Max. power dissipation of Ex d enclosure at T4: 593 W Gas group Ex d: IIB+H ₂ Ambient temperature min.: -50 °C max.: 60 °C												

These devices will be delivered completely configured and assembled ready for use

For engineering and configuration details please contact Pepperl+Fuchs

Table continues overleaf, legend see at top of table

(*) Variants, see type code table and individual enclosure data

(1) Dimensions legend see overleaf with technical data

(2) Internal dimensions Ex d enclosures, bottom line Ex e enclosure. Small deviations possible due to manufacturing tolerances

(3) Weight shows empty enclosures, it will increase according to installed components

(4) Dimensions of Ex e enclosure FS* only

(4) For configuration of FS* with cable glands, control and operating elements please refer to data sheet FXLS***.CS

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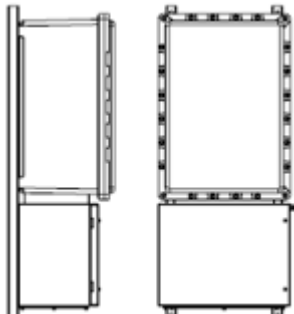
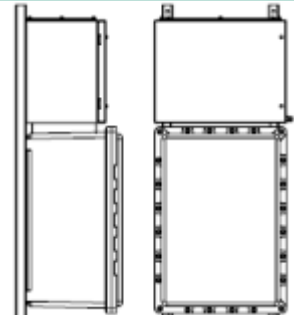
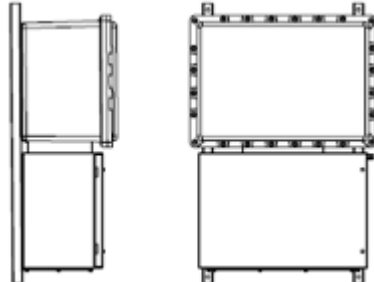
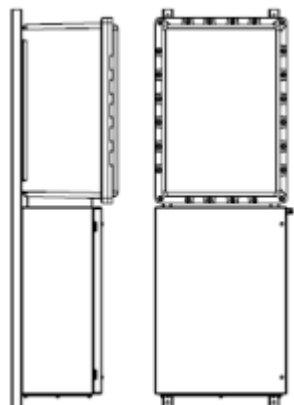
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Control and Distribution Panel Selection Table


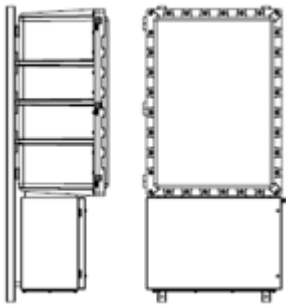
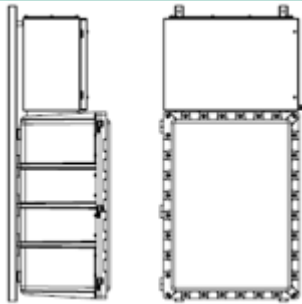
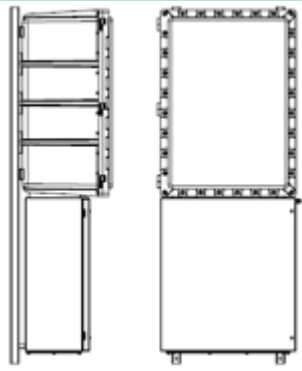
Type	Dimensions overall (1) [mm]				Dimensions internal (2) [mm]				Mounting [mm]	Diam. J	Mass (3) [kg]	Sketch (1)
	A	B	C	K	D	E	F	G				
FP. EJB18B*.FS06B	1143	515	416	1234.5	640	427	318	1184.5	415	12.5	126.4	
EJBX18B*.FS06B						430	320				193.4	
Ex e: FS06B (4)	400	515	315	n.a.	353	454	295					
Max. power dissipation of Ex d enclosure at T4: 864 W Gas group Ex d: IIB+H ₂ Ambient temperature min.: -50 °C max.: 60 °C												
FP. EJB18B*.FS06BT	1143	515	416	1234.5	640	427	318	1184.5	415	12.5	126.4	
EJBX18B*.FS06BT						430	320				193.4	
Ex e: FS06BT (4)	400	515	315	n.a.	353	454	295					
Max. power dissipation of Ex d enclosure at T4: 864 W Gas group Ex d: IIB+H ₂ Ambient temperature min.: -50 °C max.: 60 °C												
FP. EJB18BL*.FS08B	988	727	416	1095	427	640	318	1045	590	12.5	131	
EJBX18BL*.FS08B						430	320				198	
Ex e: FS08B (4)	450	660	315	n.a.	403	599	295					
Max. power dissipation of Ex d enclosure at T4: 864 W Gas group Ex d: IIB+H ₂ Ambient temperature min.: -50 °C max.: 60 °C												
FP. EJB18B*.FS06C	1473	515	416	1564.5	640	427	318	1514.5	415	12.5	137.6	
EJBX18B*.FS06C						430	320				204.6	
Ex e: FS06C (4)	730	515	315	n.a.	683	454	295					
Max. power dissipation of Ex d enclosure at T4: 864 W Gas group Ex d: IIB+H ₂ Ambient temperature min.: -50 °C max.: 60 °C												

These devices will be delivered completely configured and assembled ready for use
 For engineering and configuration details please contact Pepperl+Fuchs Table continues overleaf

- (*) Variants, see type code table and individual enclosure data
- (1) Dimensions legend see overleaf with technical data
- (2) Internal dimensions Ex d enclosures, bottom line Ex e enclosure. Small deviations possible due to manufacturing tolerances
- (3) Weight shows empty enclosures, it will increase according to installed components
- (4) Dimensions of Ex e enclosure FS* only
- (4) For configuration of FS* with cable glands, control and operating elements please refer to data sheet FXLS***.CS

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Control and Distribution Panel Selection Table

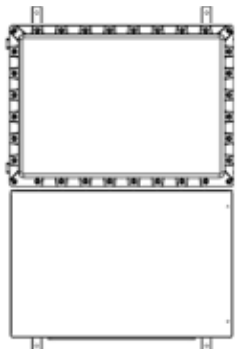

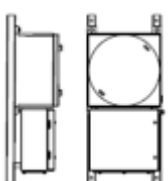

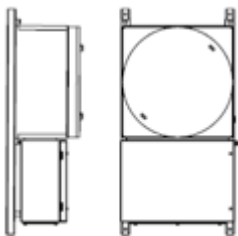
Type	Dimensions overall (1) [mm]				Dimensions internal (2) [mm]				Mounting [mm]	Diam. J	Mass (3) [kg]	Sketch (1)
	A	B	C	K	D	E	F	G				
FP. EJB18B*.FS06CL	730	515	416	1171	640	427	318	590	1121	12.5	136	
EJBX18B*.FS06CL						430	320				203	
Ex e: FS06CL (4)	730	515	315	n.a.	683	454	295					
Max. power dissipation of Ex d enclosure at T4: 864 W Gas group Ex d: IIB+H ₂ Ambient temperature min.: -50 °C max.: 60 °C												
FP. EJB20A*.FS08B	1370	662	497	1442,5	805	555	393	1392.5	510	12.5	228.6	
EJBX20A*.FS08B					800	550	380				353.6	
Ex e: FS08B (4)	450	660	315	n.a.	403	599	295					
Max. power dissipation of Ex d enclosure at T4: 1616 W Gas group Ex d: IIB+H ₂ Ambient temperature min.: -50 °C max.: 60 °C												
FP. EJB20A*.FS08BT	1370	662	497	1442,5	805	555	393	1392.5	510	12.5	228.6	
EJBX20A*.FS08BT					800	550	380				353.6	
Ex e: FS08BT (4)	450	660	315	n.a.	403	599	295					
Max. power dissipation of Ex d enclosure at T4: 1616 W Gas group Ex d: IIB+H ₂ Ambient temperature min.: -50 °C max.: 60 °C												
FP. EJB20A*.FS08C	1670	662	497	1742.5	805	555	393	1692.5	510	12.5	240.4	
EJBX20A*.FS08C					800	550	380				365.4	
Ex e: FS08C (4)	750	660	315	n.a.	703	599	295					
Max. power dissipation of Ex d enclosure at T4: 1616 W Gas group Ex d: IIB+H ₂ Ambient temperature min.: -50 °C max.: 60 °C												

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- (4) Dimensions of Ex e enclosure FS* only
- (4) For configuration of FS* with cable glands, control and operating elements please refer to data sheet FXLS***.CS

Release date 2018-04-10 T172061

Control and Distribution Panel Selection Table

Type	Dimensions overall (1) [mm]				Dimensions internal (2) [mm]				Mounting [mm]	Diam. J	Mass (3) [kg]	Sketch (1)
	A	B	C	K	D	E	F	G				
FP. EJB20AL*.FS09B EJBX20AL*.FS09B Ex e: FS09B (4)	1273	922	475.5	1387	555	805	393	1337	697	12.5	240.5 365.5	
	600	910	315	n.a.	553	849	295					
	Max. power dissipation of Ex d enclosure at 1616 Gas group Ex d: IIB+H ₂ Ambient temperature min.: -50 °C max.: 60 °C											
FP. GUB*1H.FS01B GUBX*1H.FS01B Ex e: FS01B (4)	443	203	214	580	170	170	150	530	178	12.5	15.7 35.1	
	230	200	145	n.a.	183	173	125					
	Max. power dissipation of Ex d enclosure at T4: 75 W Gas group Ex d: IIC Ambient temperature min.: -60 °C max.: 60 °C											
FP. GUB*3L.FS04B GUBX*3L.FS04B Ex e: FS04B (4)	670	360	291	817.5	325	325	183	767.5	318	12.5	34.4 104.4	
	300	340	165	n.a.	253	185	145					
	Max. power dissipation of Ex d enclosure at T4: 280 W Gas group Ex d: IIC Ambient temperature min.: -60 °C max.: 60 °C											
FP. GUB*4.FS05B GUBX*4.FS05B Ex e: FS05B (4)	810	450	310	958	410	410	227	908	410	12.5	61.6 168.1	
	350	430	215	n.a.	303	228	195					
	Max. power dissipation of Ex d enclosure at T4: 400 W Gas group Ex d: IIC Ambient temperature min.: -60 °C max.: 60 °C											
FP. GUB*5.FS07B GUBX*5.FS07B Ex e: FS07B (4)	960	550	354	1100	510	510	250	1050	511	12.5	85.6 241.1	
	400	555	225	n.a.	353	288	205					
	Max. power dissipation of Ex d enclosure at T4: 600 W Gas group Ex d: IIC Ambient temperature min.: -60 °C max.: 60 °C											

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- (4) For configuration of FS* with cable glands, control and operating elements please refer to data sheet FXLS***.CS

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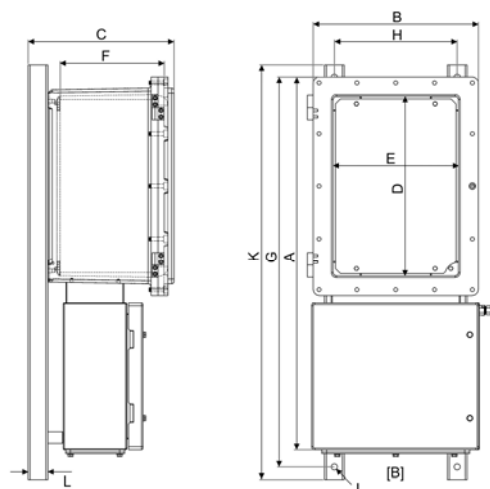
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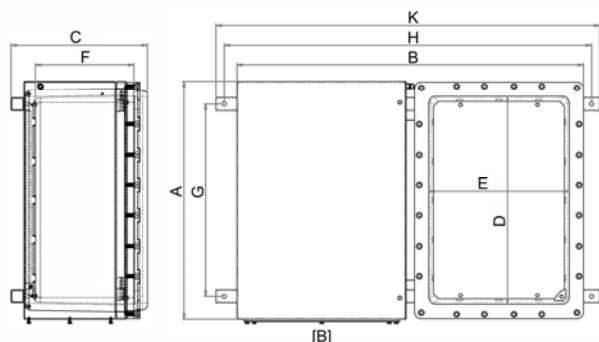
Dimensions FP.EJB*.FS*



Legend

- A - Maximum external dimension, vertical
- B - Maximum external dimension, horizontal
- C - Maximum external dimension, depth including frame
- D - Internal dimension of Ex d enclosure, vertical
- E - Internal dimension of Ex d enclosure, horizontal
- F - Internal depth to surface of mounting plate
- G - Mounting holes center
- H - Mounting holes center
- J - Mounting holes diameter
- K - Maximum external dimension with mounting frame
- L - Depth of frame = 40 mm
- [B] - Cable entry face, Ex e enclosure

Dimensions FP.EJB*.FS*L



For details see selection table
 For enclosure variant options see individual data sheets

Technical Data FP.EJB*.FS* Ex d IIB+H₂ in Aluminum and Stainless Steel

Electrical specifications

Operating voltage	660 V DC / 1000 V AC max.
Operating current	1600 A max.

Mechanical Specification FP*

Dimensions	see selection table
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Mechanical Specification EJB*

Dimensions	see selection table
Cover fixing	hinged, stainless steel hexagonal socket head cap screws
Protection degree	IP66 (optional variants IP66/67 with O-ring)
Cable entry	via FS* enclosure
Enclosure variants	windows and further options see individual datasheet

Mechanical Specification FS*

Dimensions	see selection table
Enclosure cover	fully detachable, concealed hinges, return flange
Cover fixing	M6 stainless steel hexagonal head bolts optional quarter-turn key locks
Protection degree	IP66
Cable entry	via gland plate, cable glands as per specification
Cable entry areas	bottom face [B]

Table continues overleaf

Release date 2018-04-10 T172061

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Technical Data FP.EJB*.FS* Ex d IIB+H₂ in Aluminum and Stainless Steel continued

Material EJB*

Enclosures	copper-free aluminum alloy or AISI 316L (1.4404) stainless steel
Finish	aluminum: epoxy coated grey RAL7005 stainless steel: surface shot-peened
Seal	none, optional O-ring for IP66/67
Weight	included in FP*, see selection table
Grounding	via FS* enclosure
Window	thermo-resistant tempered glass

Material FS*

Enclosures	1.5 mm AISI 316L (1.4404) stainless steel
Finish	electropolished
Gasket	silicone
Weight	included in FP*, see selection table
Grounding	M10 brass internal/external earth stud through enclosure body

Ambient conditions

Ambient temperature	-50 °C ... 60 °C (-58 °F ... 140 °F)
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Data for application in connection with Ex-areas EJB*

EC-Type Examination Certificate	INERIS 14ATEX0022X
Group, category, type of protection, temperature class	⊕ II 2 GD Ex d IIB+H ₂ T6, T5, T4, T3 Gb Ex tb IIIC T85 °C, T100 °C, T135 °C, T200 °C Db

International approvals

IECEx approval	IECEx INE 14.0029X
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Data for application in connection with Ex-areas FS*

EC-Type Examination Certificate	SIRA 13ATEX3059X
Group, category, type of protection, temperature class	⊕ II 2 GD Ex de IIC T6, T5, T4 Gb Ex ib IIC T6, T5, T4 Gb Ex de ib IIC T6, T5, T4 Gb Ex tb IIIC T80 °C, T95 °C, T130 °C Db

International approvals

IECEx approval	IECEx SIR 13.0021X
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Conformity

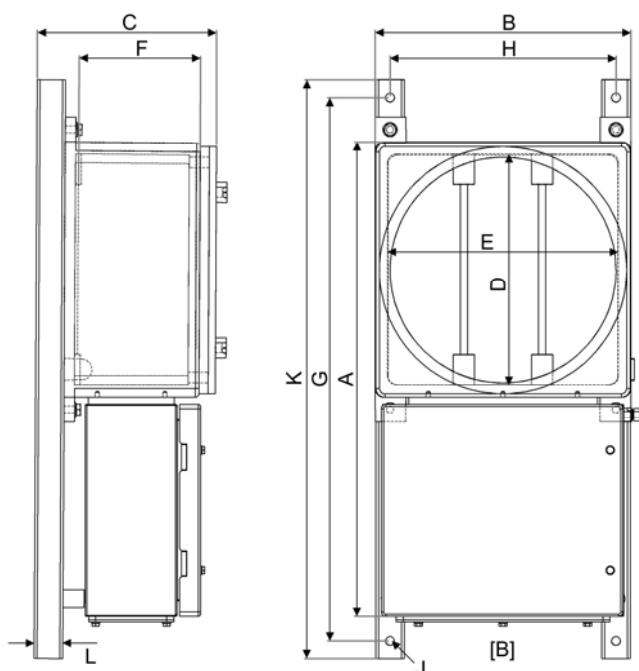
Protection degree	EN 60529
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General information

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 .
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Dimensions FP.GUB*.FS*



Legend

- A - Maximum external dimension, vertical
- B - Maximum external dimension, horizontal
- C - Maximum external dimension, depth including frame
- D - Internal dimension of Ex d enclosure, vertical
- E - Internal dimension of Ex d enclosure, horizontal
- F - Internal depth to surface of mounting plate
- G - Mounting holes center
- H - Mounting holes center
- J - Mounting holes diameter
- K - Maximum external dimension with mounting frame
- L - Depth of frame = 40 mm
- [B] - Cable entry face, Ex e enclosure

For details see selection table

For enclosure variant options see individual data sheets

Technical Data FP.GUB*.FS* Ex d IIC in Aluminum and Stainless Steel

Electrical specifications

Operating voltage	660 V DC / 1000 V AC max.
Operating current	1600 A max.

Mechanical Specification FP*

Dimensions	see selection table
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Mechanical Specification GUB*

Dimensions	see selection table
Cover fixing	threaded cover
Protection degree	IP66 (optional variants IP66/67 with O-ring)
Cable entry	via FS* enclosure
Enclosure variants	windows and further options see individual datasheet

Mechanical Specification FS*

Dimensions	see selection table
Enclosure cover	fully detachable, concealed hinges, return flange
Cover fixing	M6 stainless steel hexagonal head bolts optional quarter-turn key locks
Protection degree	IP66
Cable entry	via gland plate, cable glands as per specification
Cable entry areas	bottom face [B]

Table continues overleaf

Technical Data FP.GUB*.FS* Ex d IIC in Aluminum and Stainless Steel continued

Material GUB*

Enclosures	copper-free aluminum alloy or AISI 316L (1.4404) stainless steel
Finish	aluminum: epoxy coated grey RAL7005 stainless steel: surface shot-peened
Seal	none
Weight	included in FP*, see selection table
Grounding	via FS* enclosure
Window	thermo-resistant tempered glass

Material FS*

Enclosures	1.5 mm AISI 316L (1.4404) stainless steel
Finish	electropolished
Gasket	silicone
Weight	included in FP*, see selection table
Grounding	M10 brass internal/external earth stud through enclosure body

Ambient conditions

Ambient temperature	-60 °C ... 60 °C (-76 °F ... 140 °F)
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Data for application in connection with Ex-areas GUB*

EC-Type Examination Certificate	INERIS 14ATEX0035X
Group, category, type of protection, temperature class	⊕ II 2 GD Ex d IIC T6, T5, T4, T3 Gb Ex tb IIIC T85 °C, T100 °C, T135 °C, T200 °C Db

International approvals

IECEx approval	IECEx INE 14.0042X
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Data for application in connection with Ex-areas FS*

EC-Type Examination Certificate	SIRA 13ATEX3059X
Group, category, type of protection, temperature class	⊕ II 2 GD Ex de IIC T6, T5, T4 Gb Ex ib IIC T6, T5, T4 Gb Ex de ib IIC T6, T5, T4 Gb Ex tb IIIC T80 °C, T95 °C, T130 °C Db

International approvals

IECEx approval	IECEx SIR 13.0021X
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Conformity

Protection degree	EN 60529
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General information

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 .
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These devices will be delivered completely configured and assembled ready for use
For engineering and configuration details please contact Pepperl+Fuchs

Solution Examples



Release date 2018-04-10 T1172061

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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