

FIBOX_{EX}

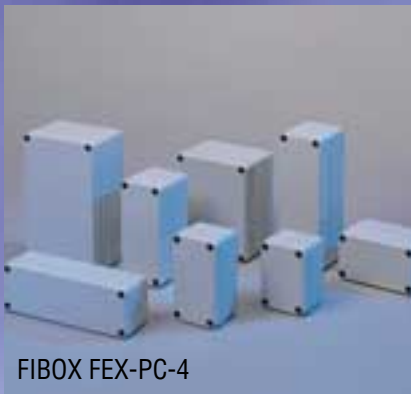
FIBOX EX

NEW aluminium enclosure series!

FIBOX ALX ENCLOSURES



KEMA
Kema No. Ex-99.E.1960 U



FIBOX FEX-PC-4



FIBOX FEX-PC-7





FIBOX PEX

Fibox EX enclosures are made for use in hazardous areas. They are designed, tested and manufactured to international standards. The certificates are issued by the manufacturer under licence from a test authority.

All certified products are labelled clearly in compliance with the certification.

An enclosure with Component Certification will achieve the specified degree of safety in use when selected, assembled and installed correctly. The Component Certification establishes the acceptability of the empty enclosure for use as a component part of equipment which is certified by a Certificate of Conformity. Only equipment with a Certificate of Conformity should be installed in hazardous areas.

FIBOX ALX ALUMINIUM ENCLOSURE At least IP 54, IK 08	Y mm	X mm	Including: Enclosure base, cover, cover screws, mounting screws, earth screws and earth terminal.				ACCESSORIES		
			ORDER SYMBOL	Z mm	C mm				
<p>NEW!</p>  <p>New FIBOX ALX aluminium enclosures for housing terminal blocks, electronic devices and other industrial components. These enclosures are made from high quality, non corrosive aluminium.</p>  <p>CERTIFICATES: KEMA</p> <ul style="list-style-type: none"> - Kema No. Ex-99.E.1960 U - Kema: EEx e II 	50	45	ALX 050503	32	20	Order symbol	Size mm		
	60	66	ALX 060605	46	35	<i>Mounting plate</i> AM 0808 69 x 64 AM 0813 69 x 114 AM 0818 69 x 164 AM 0825 69 x 240 AM 1212 107 x 110 AM 1222 107 x 207 AM 1236 107 x 347 AM 1616 146 x 146 AM 1626 146 x 244 AM 1636 146 x 346 AM 1656 146 x 545 AM 2320 215 x 184 AM 2328 215 x 264 AM 2333 215 x 315 AM 2340 215 x 385 AM 2360 215 x 586 AM 3140 294 x 387 AM 3160 293 x 585			
	100	66	ALX 061005	46	35				
	152	65	ALX 061505	46	35				
	82	77	ALX 080806	57	45				
	127	81	ALX 081306	57	45				
	177	81	ALX 081806	57	45				
	252	81	ALX 082506	57	45		<i>Mounting rail DIN 15</i>		
	125	124	ALX 121208	81	64		ARM 0610 15 x 88 ARM 0615 15 x 140 ARM 0808 15 x 65 ARM 0813 15 x 115 ARM 0818 15 x 165 ARM 0825 15 x 240		
	222	125	ALX 122208	81	64		<i>Mounting rail DIN 35</i>		
	362	125	ALX 123608	81	74		ARH 12 35 x 105 ARH 22 35 x 203 ARH 36 35 x 343 ARH 16 35 x 140 ARH 26 35 x 240 ARH 1636 35 x 340 ARH 1656 35 x 540 ARH 2320 35 x 180 ARH 2328 35 x 260 ARH 2333 35 x 310 ARH 40 35 x 383 ARH 60 35 x 580		
	163	162	ALX 161609	91	74		<i>Wall mounting lugs</i>		
	263	162	ALX 162609	91	74		MRS 28540 MRS 28541		
							More accessories and dimensions; see page 34.		



TECHNICAL INFORMATION

PROPERTY	AISI CAST ALUMINIUM	CONFORMITY TO STANDARDS
Ingress Protection (EN 60529)	IP 66/67	USA Enclosures for Electrical Equipment NEMA 1, 4, 4X, 6 12 and 13 (50/508)
Impact Resistance (EN 50102)	At least IP 54 IK 08	Europe Electrical apparatus for potentially explosive atmospheres EN 50014: 1997 + A1.....A5, General requirements EN 50019: 1997 + A1.....A5, Increased safety "e"
ALX 050503 to ALX 082506		
Temperature Range Celsius (short term)	-50°...140°C	
Temperature Range Fahrenheit (short term)	-60°...285°F	
Temperature Range Celsius (continuous)	-10°...80°C	
Temperature Range Fahrenheit (continuous)	14°...175°F	
Gasket	Silicone	
ALX 121208 to ALX 162609		
Temperature Range Celsius (short term)	-50°...140°C	
Temperature Range Fahrenheit (short term)	-60°...285°F	
Temperature Range Celsius (continuous)	-25°...80°C	
Temperature Range Fahrenheit (continuous)	-13°...175°F	
Gasket	PUR	
Polyester Powder Paint Colour	RAL 7001 grey	
Cover Screws	Stainless Steel	
Chemical Resistance *	Good	

Data subject to change without notice. *Consult separate raw material data for more detailed information.

Also bigger Ex sizes available.

External height **Y** External width **X** External depth **Z** Free internal mounting height **C**

FIBOX FEX-PC-7 POLYCARBONATE ENCLOSURE At least IP 54	Y mm	X mm	Including: Enclosure base, cover, cover screws, and mounting screws.			Z x C mm
			ORDER SYMBOL		ORDER SYMBOL	
			Grey cover	EAN-code	Transparent cover	
 <p>The FEX-PC-7 range is suitable for enclosing terminals and other equipment in harsh environmental conditions such as petrochemical sites or off-shore platforms.</p>  <p>CERTIFICATES:</p> <ul style="list-style-type: none"> - Kema No. Ex-97.D.3891 U - Kema: EEx e II EN 50014, EN 50019 - FIMKO: IP 67 to IEC 529, - Germanischer Lloyd - Lloyd's Register of Shipping 	190	190	FEX 1919 13 G		FEX 1919 13 T	130 x 115
	190	190	FEX 1919 18 G		FEX 1919 18 T	180 x 165
	280	190	FEX 2819 13 G		FEX 2819 13 T	130 x 115
	280	190	FEX 2819 18 G		FEX 2819 18 T	180 x 165
	380	190	FEX 3819 13 G		FEX 3819 13 T	130 x 115
	380	190	FEX 3819 18 G		FEX 3819 18 T	180 x 165
	280	280	FEX 2828 13 G		FEX 2828 13 T	130 x 115
	280	280	FEX 2828 18 G		FEX 2828 18 T	180 x 165
	380	280	FEX 3828 13 G		FEX 3828 13 T	130 x 115
	380	280	FEX 3828 18 G		FEX 3828 18 T	180 x 165
	560	280	FEX 5628 13 G		FEX 5628 13 T	130 x 115
	560	380	FEX 5638 18 G		FEX 5638 18 T	180 x 165
			Accessories, see pages 39-40.			



TECHNICAL INFORMATION

PROPERTY	POLYCARBONATE (PC)	CONFORMITY TO STANDARDS
Ingress Protectionat (EN 60529)	IP 66/67 At least IP 54	Europe Electrical apparatus for potentially explosive atmospheres EN 50014: 1977 + A1....A5, General requirements EN 50019: 1997 + A1....A5, Increased safety "e"
Impact Resistance (EN 50014)	4J	
Temperature Range Celsius (short term)	-40°...120°C	
Fahrenheit	-40°...250°F	
Temperature Range Celsius (continuous)	-10°...80°C	
Fahrenheit	14°...175°F	
Electrical Insulation	Totally insulated <input checked="" type="checkbox"/>	
Light Grey Parts Colour	RAL 7035	
Industry Grey		
Transparent Clear PC Cover	Clear Transparent	
Cover Screws	RAL 7035	
Cover Screws	Polyamide (PA)	
Gasket	Silicone	
Enclosure Flammability Rating	UL94-5V	UL 746 C 5 in. vertical flame test
Glow Wire Test	960°C	IEC 695-2-1, Self-extinguishing
Non-toxicity	Halogen Free	
UV resistance	UL 508, 720 hours in "Weatherometer"	
Chemical Resistance *	Good	

Data subject to change without notice. *Consult separate raw material data for more detailed information

External height **Y** External width **X** External depth **Z** Free internal mounting height **C**

FIBOX FEX-PC-4



FIBOX FEX-PC-4 POLYCARBONATE ENCLOSURE At least IP 54	Y mm	X mm	Including: Enclosure base, cover, 4 cover screws, and mounting screws.			Z mm	C mm	ACCESSORIES	
			ORDER SYMBOL	Grey cover					Order symbol
 <p>FEX-PC-4 range is suitable for enclosing terminals and other equipment in hostile environments such as oil and gas industries.</p>  <p>CERTIFICATES:</p> <ul style="list-style-type: none"> - Kema No. Ex-97.D.3891 U - Transparent covers on request 	110	80	FEX B65 G			65	52		
	110	80	FEX B85 G	85	72			<i>Mounting plate</i>	
								B-MP	80 x 54
								C-MP	110 x 54
								D-MP	140 x 54
								F-MP	200 x 54
								H-MP	125 x 94
								M-MP	185 x 94
								<i>Mounting rail DIN 35</i>	
								B-3	35 x 80
								CHM-3	35 x 110
								DH-3	35 x 140
								FM-3	35 x 200
								<i>Ventilation device</i>	
							MB 10631		
							<i>Hinges</i>		
							TH A		
							<i>Hinges</i>		
							PA 22039		
							<i>Wall mounting lugs</i>		
							FP 22040		
							FP 22046		
							More accessories and dimensions; see page 24.		

TECHNICAL INFORMATION

PROPERTY	POLYCARBONATE (PC)	CONFORMITY TO STANDARDS
Ingress Protection (EN 60529)	IP 66/67 At least IP 54	NEMA 1, 4, 4X, 6, 12 and 13
Impact Resistance (EN 50014)	4J	
Temperature Range (short term)	Celsius -40°...120°C Fahrenheit -40°...250°F	
Temperature Range (continuous)	Celsius -10°...80°C Fahrenheit 14°...175°F	
Electrical Insulation	Totally insulated <input type="checkbox"/>	Europe Safety of Information Technology Equipment EN 60950 Australia Enclosures for switch gear and control gear AS 3132-1991
Light Grey Parts Colour	RAL 7035	Europe Electrical apparatus for potentially explosive atmospheres EN 50014: 1977 + A1...A5, General requirements EN 50019: 1997 + A1...A5, Increased safety "e"
Transparent Clear PC Cover	Industry Grey Clear Transparent	
Cover Screws	RAL 7035	
Cover Screws	Polyamide (PA)	
Gasket	Silicone	
Enclosure Flammability Rating	UL94-5V	UL 746 C 5 in. vertical flame test
Glow Wire Test	960°C	IEC 695-2-1, Self-extinguishing
Non-toxicity	Halogen Free	DIN/VDE 0472, Part 815
UV resistance	UL 508, 720 hours in "Weatherometer"	
Chemical Resistance *	Good	

Data subject to change without notice. *Consult separate raw material data for more detailed information

External height **Y** External width **X** External depth **Z** Free internal mounting height **C**

FIBOX PEX POLYESTER ENCLOSURE At least IP 54	X mm	Y mm	Including: Enclosure base, cover, cover screws, and mounting screws.			Z mm	C mm	ACCESSORIES							
			ORDER SYMBOL		Grey cover			Order symbol	Size mm						
 <p>The FIBOX PEX product family is suitable for enclosing terminals and other electrical equipment in the most demanding environments such as mining or chemical industries.</p>  <p>CERTIFICATES: - PTB: EEx e II</p>	75	80	PEX 080806	55	47			Order symbol	Size mm						
	75	110	PEX 081106	55	47			<i>Mounting plate</i>	PM 0808 PM 0811 PM 0816 PM 0819 PM 1616 PM 1626 PM 2526 PM 2540 PM 4040	64 x 69 64 x 99 64 x 149 64 x 179 146 x 146 146 x 244 231 x 240 231 x 383 390 x 385					
	75	160	PEX 081606	55	47										
	75	190	PEX 081906	55	47										
	120	122	PEX 121209	90	75										
	120	220	PEX 122209	90	75			<i>Mounting rail DIN 15</i>	PRM 0811 PRM 0816 PRM 0819	15 x 99 15 x 149 15 x 179					
	160	160	PEX 161609	90	75										
	160	260	PEX 162609	90	75										
	160	360	PEX 163609	90	75			250	255	PEX 252612	120	105	<i>Mounting rail DIN 35</i>	PRH 2526	35 x 238
	250	400	PEX 254012	120	105										
	405	400	PEX 404012	120	105			<i>Hinge kit</i> 1 pair includes screws AH A/B PH A	<i>Mounting foot kit</i> MRS 28540 MRS 28541	11x42 15x50					
	More accessories and dimensions; see page 34.														

TECHNICAL INFORMATION

PROPERTY	POLYESTER	CONFORMITY TO STANDARDS
Ingress Protection (EN 60529)	IP 65 At least IP 54	USA Enclosures for Electrical Equipment NEMA 1, 4, 4X, 6 12 and 13
Impact Resistance (EN 50102)	IK 08	UL 746 C 5 in. vertical flame test IEC 695-2-1, Self-extinguishing
Temperature Range Celsius (short term)	-40° . . 120°C	
Temperature Range Fahrenheit (short term)	-40° . . 250°F	
Temperature Range Celsius (continuous)	-10° . . 80°C	
Temperature Range Fahrenheit (continuous)	14° . . 175°F	
Electrical Insulation	Totally insulation <input type="checkbox"/>	
Enclosure Flammability Rating	UL94-5V	UL 746 C 5 in. vertical flame test
Glow Wire Test	960°C	IEC 695-2-1, Self-extinguishing
Cover screws	Stainless Steel	
Gasket	EPDM	
Chemical Resistance *	Good	

Data subject to change without notice. *Consult separate raw material data for more detailed information

External height **Y** External width **X** External depth **Z** Free internal mounting height **C**

EX CERTIFICATION OF ENCLOSURES

Fibox EX enclosures are made for use in hazardous areas. They are designed, tested and manufactured to international standards. The certificates are issued by the manufacturer under licence from a test authority. All certified products are labelled clearly in compliance with the certification.

An enclosure with Component Certification will achieve the specified degree of safety in use when selected, assembled and installed correctly. The Component Certification establishes the acceptability of the empty enclosure for use as a component part of equipment which is certified by a Certificate of Conformity. Only equipment with a Certificate of Conformity should be installed in hazardous areas.

Hazardous areas are referred to as they are classified under GENELEC European Norms:

- Zone 0 = Zone in which an explosive gas/air mixture is continuously present or present for long periods.
- Zone 1 = Zone in which an explosive gas/air mixture is likely to occur in normal operation.
- Zone 2 = Zone in which an explosive gas/air mixture is not likely to occur in normal operation and if arises, will only last for a short period.

EXPLANATION OF CERTIFICATE SYMBOLS

The following tables can be used as practical quick guides. For more detailed information please contact your local Fibox representative.

The different EX protection types specified are:

Protection typ	Symbol	Test Standard
Increased safety	e	EN 50019
Non-sparking	n	-
Flameproof	d	EN 50018
Intrinsically safe	i	EN 50020
Special protection	s	-
Encapsulation	m	EN 50028
Oil immersion	o	EN 50015
Pressurisation	p	EN 50016
Sand or powder filled	q	EN 50017

Classification of gas groups to IEC standards:

Gas Group	Representative Gas
I	Methane
II A	Propane
II B	Ethylene
II C	Acetylene and Hydrogen

Temperature classification to EN standards of the maximum surface temperature allowed for any part of an apparatus:

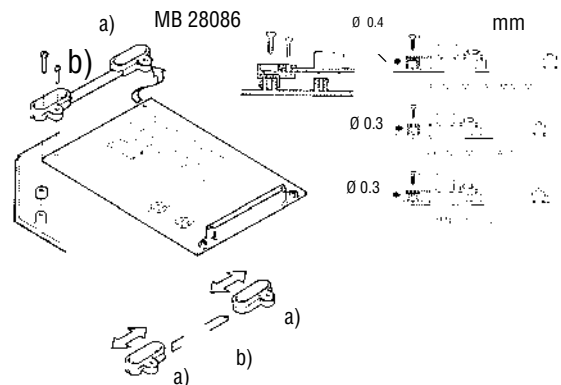
Temperature Class	Max. Surface Temperature
T1	450 °C
T2	300 °C
T3	200 °C
T4	135 °C
T5	100 °C
T6	85 °C

These temperature classifications are applicable only to mounted enclosures which have a Certificate of Conformity.

CIRCUIT BOARD BRACKET

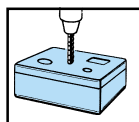
Printed circuit boards and mounting plates often need special mounting supports that offer flexibility in positioning the boards across the enclosure body. Mounting supports also raise the board above the enclosure bottom, especially effective when using two sided boards. This circuit board bracket has a standard E1 (IEC 297-3, DIN 41494) Eurocard screw mounting distance of 89 mm (3.5") accepting M2,5 to M4 screws. The bracket can also be used for nonstandard boards by separating the ends of the bracket (a) from the connector bridge (b). If the bracket is not needed, the adapter parts for each individual mounting pod size can be used only for raising the board above the enclosure base level.

CIRCUIT BOARD BRACKET			
ORDER SYMBOL	Standard Mounting Distance		Remarks
	mm	inches	
MB 28086	89	3.5	Adapter for EURONORM II, PICCOLO, MINI. Direct mount to EK, SOLID, EKI, ALX, PC-7, PC-4, PEX.



CUSTOMISATION

Enclosures can be machined, painted, screen printed and preassembled to meet your customisation requirements. Fibox's service center offers complete CNC machining, hinge mounting, screen printing, assembly and much more. Our wide selection of enclosures and accessories can be customised to create a unique enclosure meeting your application requirements.



CD-ROM CATALOGUE

Enclosure specifications and technical data are available on our latest CD-ROM. CAD support drawings are available in IGES, DWG and DXF formats adaptable to your design system requirements. Our Version 3.0 Catalog offers full multiuser networking capabilities.

