FIBOX

C O N T E N T S

http://www.fibox.com

FIBOX MNX

FIBOX MINI

FIBOX EURONORM

FIBOX SOLID

FIBOX CAB

FIBOX CARDMASTER

FIBOX WINDOWS

SMALL TO MEDIUM SIZE ENCLOSURES

PC / ABS / P   52 x 50 x 40 mm to 300 x 230 x 110 mm

MEDIUM TO LARGE SIZE ENCLOSURES

190 x 190 x 130 mm to 600 x 400 x 220 mm

ENCLOSURES FOR ELECTRONICS AND INSTRUMENTATION

FIBOX®

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Fibox Enclosure Catalogue on CD -ROM

What's new?
The new CD - ROM includes all the latest new product introductions (MNX, CAB etc.) The user interface has been improved and is now easier to use. Software enhancements have reduced response times for accessing the data base.
It is a real designer's tool for selecting the right enclosure.

Features of the CD
Contains a full enclosure catalogue complete with all Fibox product families and accessories.
Selection of the ideal enclosure by searching your most critical parameter (material, NEMA rating, size, etc.)
Contains scaleable drawings, presented in either metric or inch dimensions. (Inch sizes are for reference only.)
Computer aided design drawings, usable by the engineer's own CAD system. (Available formats: DRW, IGS, and DXF.)
Presentation of services available for modification and customisation by the factory.
Includes eleven languages: American, German, Danish, English, French, Italian, Dutch, Estonian, Polish, Finnish and Swedish.

General information.
The Fibox Enclosure Catalogue is available in a CD-ROM version. To use our latest CD-ROM, the following minimum system configuration is required:
IBM compatible PC with 386 processor, 4 MB RAM, 15 MB free hard drive disk space and Windows 3.1 or newer operating system.

FIBOX®

FIBOX is on the WEB for YOU

Find Fibox support services on the world wide web.

Visit our multi-language WEB site. As a global, multinational company, our home page is available in English, French, German, Swedish, Korean and Finnish.

No time for drawing enclosures?
At **http://www.fibox.com**, Fibox lends a helping hand to designers with CAD format drawings which can be easily downloaded. Select only the drawings you need for your selected enclosure and complete your design quickly. Save time with drawings available in both inches and millimetres.

Need technical specifications, accessories or agency approvals?
At **http://www.fibox.com**, you can obtain the technical information you need to complete your design. Select your enclosure, and print a PDF file with a photo, dimensional drawing (in metric and inches), part numbers, ordering codes, technical data and regulatory agency approvals. There is even a list of correct accessories, ready for you to print. Select only the information you want and need!

The world changes and so do we.
At **http://www.fibox.com**, you can see the latest Fibox products and services. As a leader in injection moulding for the electrical and electronics industries, there is always something new at Fibox. Visit our WEB site to keep abreast of new products and services, the latest in customising options, or our growing list of accessories. Our electronic newsletter will introduce you to new products, new applications and new services, plus add a personal touch as you get to know Fibox around the world.

Need technical or promotional material?
At **http://www.fibox.com**, you can request our catalogue, full colour data sheets, press releases, manufacturers declarations, CD-ROM and much more. Just click the envelope and specify what you need.

Your thoughts, please!
Give us feedback. Tell us what you like and what you don't like! Write to us from **http://www.fibox.com**, or E-mail us at **info@fibox.fi**. We are committed to continually improving our service to you. Please help us by sharing your opinions with us.

YOU surf to US and let US serve YOU

FIBOX MNX

FIBOX MINI

FIBOX PICCOLO

FIBOX EURONORM

FIBOX SOLID

FIBOX EK

FIBOX CAB

FIBOX QUICK

FIBOX SPACE LINK

FIBOX CARDMASTER

FIBOX EX

FIBOX WINDOWS

FIBOX

FIBOX QUALITY CREATES CUSTOMER ADVANTAGE

Fibox has developed a sophisticated quality system to assure our customers of the reliability and consistency of our products and our service. All aspects of our operations, from design and development through to production and product delivery, are documented to ensure superior performance. Performance you can rely on.

Fibox is an ISO 9001 certified manufacturer and was awarded its certificate by Bureau Veritas Quality International in 1992. This approval covers specifications defined by ISO 9001:1994.

THE FIBOX QUALITY POLICY

The Fibox approach to quality is documented in the Fibox Quality Policy manual.

THE FIBOX QUALITY SYSTEM

The Fibox quality system applies not only to product quality and safety, but availability of product, accuracy of shipments, technical support and customer service. The continued success of this program is assured by regular internal and independent external audits.

NEMA/UL CLASSIFICATIONS OF PROTECTION

The National Electrical Manufacturers Association (NEMA) is a US Manufacturers Organisation which actively promotes standardised product specifications for electrical apparatus.

NEMA performance criteria and test methods are used by Underwriters' Laboratories as guidelines for investigation and listing of electrical enclosures.

Approximate IP equivalents in parentheses
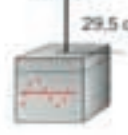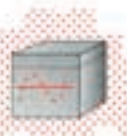
NEMA 1: Indoor use primarily to provide a degree of protection against contact with the enclosed equipment and against a limited amount of falling dirt. (IP30)

2: Indoor use to provide a degree of protection against limited amounts of falling water and dirt. (IP31)

3: Outdoor use to provide a degree of protection against windblown dust, rain, and sleet; undamaged by the formation of ice on the enclosure. (IP64)

3R: Outdoor use to provide a degree of protection against falling rain and sleet: undamaged by the formation of ice on the enclosure. (IP32)

3S: Outdoor use to provide a degree of protection against windblown dust, rain and sleet; external mechanisms remain operable while ice laden.

4: Indoor or outdoor use to provide a degree of protection against splashing water, windblown dust and rain, hose directed water; undamaged by the formation of ice on the enclosure. (IP66)

4X: Indoor or outdoor use to provide a degree of protection against splashing water, windblown dust and rain, hose directed water; undamaged by the formation of ice on the enclosure, resists corrosion. (IP66)

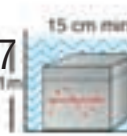6: Indoor or outdoor use to provide a degree of protection against the entry of water during temporary submersion at a limited depth; undamaged by the formation of ice on the enclosure.

6P: Indoor and outdoor use to provide a degree of protection against the entry of water during prolonged submersion at a limited depth.

11: Indoor use to provide by oil immersion a degree of protection of the enclosed equipment against the corrosive effects of corrosive liquids and gases.

12,12K: Indoor use to provide a degree of protection against dust, falling dirt and dripping noncorrosive liquids. (IP65)

13: Indoor use to provide a degree of protection against dust and spraying of water, oil and noncorrosive coolants. (IP65)

THE IP AND IK CLASSIFICATIONS

Ingress protection class of enclosures is given in the form of IP classification, a two digit coding which is shown below. Fibox has tested the enclosures according to IEC 529 or the newer EN 60529 4:1992. The latter requires the second digit to be tested from class 6 upwards separately to each level of class, thus the double marking IP 66 / IP 67 indicates that the actual tests have been made for both levels.

The new European standard for empty enclosures, EN 50298:98 includes the new IK impact test, too. This test is described in EN 50102, and as Fibox enclosures are being tested to EN 50298:98, the data for impact resistance will be available as well.

FIRST NUMBER — Protection against solid objects

- IP 0: no protection
- IP 1: protected against solid objects up to 50 mm e g accidental touch by hands.
- IP 2: protected against solid objects up to 12 mm e g fingers.
- IP 3: protected against solid objects over 2,5 mm (tools+ small wires).
- IP 4: protected against solid objects over 1mm (tools+ small wires).
- IP 5: protected against dust - limited ingress permitted (no harmful deposit).
- IP 6: totally protected against dust.

SECOND NUMBER — Protection against liquids

- IP 0: no protection
- IP 1: protected against vertically falling drops of water.
- IP 2: protected against direct sprays of water up to 15° from the vertical.
- IP 3: protected against sprays to 60° from the vertical.
- IP 4: protected against water sprayed from all directions - limited ingress permitted.
- IP 5: protected against low pressure jets of water from all directions - limited ingress permitted.
- IP 6: protected against strong jets of water e g for use on shipdecks - limited ingress permitted.
- IP 7: protected against the affects of immersion between 15 cm and 1 m.
- IP 8: protected against long periods of immersion under pressure.

IK CODE — Protection against mechanical impacts (NEW)

- IK 00: no protection
- IK 01-05: impact < 1 joule
- IK 06: impact 1 joule
- IK 07: impact 2 joule
- IK 08: impact 5 joule
- IK 09: impact 10 joule
- IK 10: impact 20 joule

FIBOX

CUSTOMISATION SERVICES

Fibox is a leading innovator, designer and manufacturer of enclosures. Our products are marketed in over 40 countries world wide. We provide superior, cost effective solutions for protecting electrical and electronic equipment operating in hostile environments.

To increase the range and flexibility of our package solutions, Fibox has developed a comprehensive range of services, permitting cost effective customisation for specific applications.

The two most important of these are machining services and customised tooling.

Our sophisticated CNC machinery can supply enclosures with holes, cutouts and openings to your specification. This solution is best suited for small to medium volumes of enclosures.

For large OEM volumes, our sophisticated, multiple slide tooling permits cost effective modification of any side of the enclosure. In this way, the OEM can have his custom product based upon a standard Fibox enclosure. The OEM will save both money and development time, enabling him to concentrate on product sales.
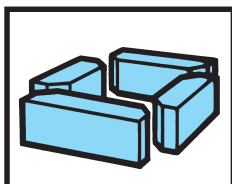
The Fibox Enclosure Catalogue on CD-ROM (PC) provides you the fastest route for choosing Fibox enclosures and accessories. Our interactive program guides you to the correct enclosure and accessories for your application. Technical data and drawing files (DWG, IGS, and DXF) allow the engineer to design and customise quickly.
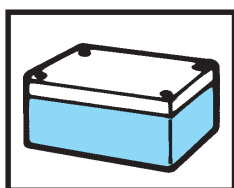
See also page 14 .

Fibox can customise your enclosures making them completely ready for your application.
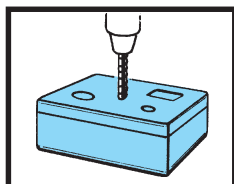
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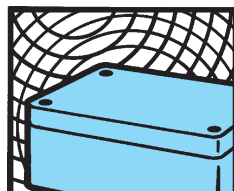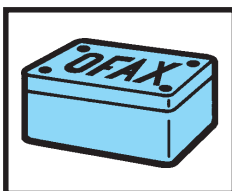
Customised tooling

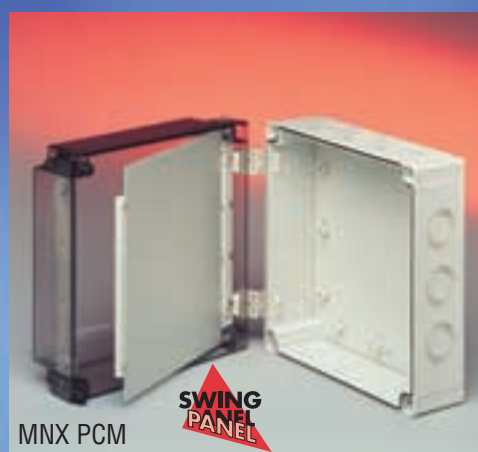Coloured enclosures
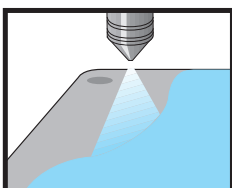
Painted enclosures

EMC shielding

Printed enclosures

The Fibox Enclosure Catalogue on CD-ROM (PC) gives you the fastest route for choosing products with appropriate accessories and making your own products. With the help of enclosure drawings (DWG-, IGES, DXF formats) on the CD-ROM, it is easy to customise standard enclosures for your own application.

FIBOX MNX

PC
ABS
PCM
F

FIBOX
ORIGINAL DESIGN
SINCE 1962

Pat.Reg. 384648, 400513, 400512

MNX PC

MNX ABS

MNX PCM

SWING PANEL

The FIBOX MNX range of enclosures represents the culmination of 30 years experience in enclosure design and manufacture. Unique tooling defines a new "State of the Art" for injection moulding. The FIBOX MNX polycarbonate and ABS range has been designed to house and protect electrical and electronic components in hostile environments. Three body depths, and up to 4 cover choices per body size, create over 170 variations. Covers are available opaque or transparent "smoked grey". A wide selection of accessories is available including a hinged "Swing Out" inner panel, the "Swing Panel".

FIBOX MNX (vertical side text)

FIBOX MNX PC

| FIBOX MNX POLYCARBONATE PC: IP 66/67 and IP 66, IK 08		Z mm	C mm	Including: Enclosure cover with cover screws and wing heads for cover screws, base with mounting plate screws and gasket.			B x A
				ORDER SYMBOL Grey cover		ORDER SYMBOL Smoked transparent cover	L x S mm
PC 100 L Y x X 130 mm 80 mm		35 75 100	24.1 65.9 90.9	PC 100/35 LG PC 100/75 LG PC 100/100 LG		PC 100/35 LT PC 100/75 LT PC 100/100 LT	B x A 90 x 40 L x S 113.5 x 63.5
PC 100 H Y x X 130 mm 80 mm		60 100 125	44.5 86.3 111.3	PC 100/60 HG PC 100/100 HG PC 100/125 HG		PC 100/60 HT PC 100/100 HT PC 100/125 HT	B x A 90 x 40 L x S 113.5 x 63.5
PC 125 L Y x X 130 mm 130 mm		35 50 75 100	24.0 40.9 65.9 90.9	PC 125/35 LG PC 125/50 LG PC 125/75 LG PC 125/100 LG		PC 125/35 LT PC 125/50 LT PC 125/75 LT PC 125/100 LT	B x A 90 x 90 L x S 113.5 x 113.5
PC 125 H Y x X 130 mm 130 mm		60 75 100 125	44.4 61.0 86.2 111.3	PC 125/60 HG PC 125/75 HG PC 125/100 HG PC 125/125 HG		PC 125/60 HT PC 125/75 HT PC 125/100 HT PC 125/125 HT	B x A 90 x 90 L x S 113.5 x 113.5
PC 150 L Y x X 180 mm 130 mm		35 50 75 100	23.6 40.9 65.9 90.9	PC 150/35 LG PC 150/50 LG PC 150/75 LG PC 150/100 LG		PC 150/35 LT PC 150/50 LT PC 150/75 LT PC 150/100 LT	B x A 140 x 90 L x S 163.5 x 113.5
PC 150 H Y x X 180 mm 130 mm		60 75 100 125	44.0 61.3 86.3 111.3	PC 150/60 HG PC 150/75 HG PC 150/100 HG PC 150/125 HG		PC 150/60 HT PC 150/75 HT PC 150/100 HT PC 150/125 HT	B x A 140 x 90 L x S 163.5 x 113.5
PC 175 H Y x X 180 mm 180 mm		60 100	44.0 86.3	PC 175/60 HG PC 175/100 HG		PC 175/60 HT PC175/100 HT	B x A 140 x 140 L x S 163.5 x 163.5
PC 200 H Y x X 255 mm 180 mm **PC 200 XH**		60 75 100 150	44.0 61.2 86.3 135.9	PC 200/60 HG PC 200/75 HG PC 200/100 HG PC 200/150 HG		PC 200/60 HT PC 200/75 HT PC 200/100 HT PC 200/150 HT	B x A 215 x 140
		85 100 125 175	69.6 86.8 111.9 161.5	PC 200/85 XHG PC 200/100 XHG PC 200/125 XHG PC 200/175 XHG		PC 200/85 XHT PC 200/100 XHT PC 200/125 XHT PC 200/175 XHT	L x S 238.5 x 163.5

External height **Y**   External width **X**   External depth **Z**   Free internal mounting height **C**   Mounting plate assembly **B** X **A**   Wall mounting **L** X **S**

L (low base) =enclosure with the low 25 mm base, H (high base) = enclosure with the high 50 mm base, XH (extra high base) = enclosure with the extra high 75 mm base,
T= smoked transparent cover with black cover screws and black wing heads, G= grey cover with grey cover screws and grey wing heads.

FIBOX MNX PC

Y	External height
X	External width
Z	External depth
C	Free internal mounting height
B	Mounting plate assembly
A	Mounting plate assembly
L	Wall mounting
S	Wall mounting
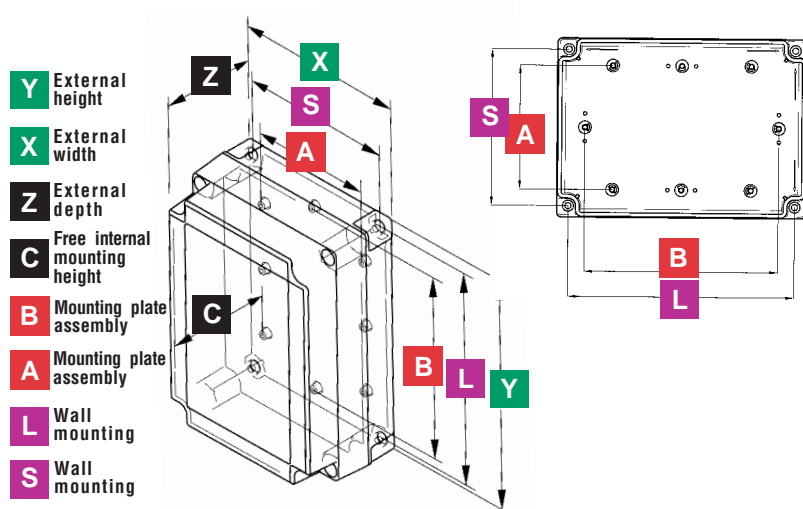
SYMBOLS AND ABBREVIATIONS

PC 100 / 60 L G

- Cover G = Grey
  T = Smoked grey transparent
- Base height
  L= Low 25 mm
  H= High 50 mm
  XH= Extra high 75 mm
- Total height = base + cover
- Size (length x width/2)
- Enclosure range/type

PC	Smooth sides
ABS	Smooth sides
PCM	Sides with metric knock-outs

FIBOX MNX F COVER FOR MEMBRANE KEYBOARDS

NEW!

Please order separately: cover II 175/10 GF, enclosure base and cover screw set MBS LH. (Screw set includes 4 x grey cover screws, 4 x grey wing heads and 4 x mounting plate screws.)

Z mm	**C** mm	ORDER SYMBOL Base	PRODUCT		**B** X **A** / **L** X **S** mm
60	44	PC 175H	PC base		140 x 140 / 163.5 x 163.5
60	44	PCM 175H	Base with metric knockouts		140 x 140 / 163.5 x 163.5
60	44	A 175H	ABS base		140 x 140 / 163.5 x 163.5

FIBOX MNX PCM WITH METRIC KNOCK-OUTS

Amount of metric knock-outs in FIBOX MNX PCM:

Y X **X** mm	ORDER SYMBOL	KNOCK-OUT OPENINGS Long side — Number of openings x metric size	KNOCK-OUT OPENINGS Short side — Number of openings x metric size	
130 x 80	PCM 100	2 x M32/M20	1 x M25/M16	
130 x 130	PCM 125	2 x M32/M20	2 x M25/M16	
180 x 130	PCM 150	3 x M25/M16	2 x M32/M20	
180 x 180	PCM 175	3 x M32/M20	3 x M25/M16	
255 x 180	PCM 200	3 x M25/M16 x M32/M20	3 x M32/M20	
255 x 180	PCM 200X	8 x M20, 1 x /M50/M32	2 x M32/M20, 1 x M20	

For more information, please see next page.

FIBOX MNX PCM WITH METRIC KNOCK-OUTS

FIBOX MNX POLYCARBONATE PC: IP 66/67 and IP 66, IK 08	Z mm	C mm	Including: Enclosure cover with cover screws and wing heads for cover screws, base with mounting plate screws and gasket.			B x A L x S mm
			ORDER SYMBOL Grey cover		ORDER SYMBOL Smoked transparent cover	
PCM 100 **Y** x **X** 130 mm 80 mm	60 100 125	44.5 86.3 111.3	PCM 100/60 G PCM 100/100 G PCM 100/125 G		PCM 100/60 T PCM 100/100 T PCM 100/125 T	B x A 90 x 40 L x S 113.5 x 63.5
PCM 125 **Y** x **X** 130 mm 130 mm	60 75 100 125	44.4 61.0 86.2 111.3	PCM 125/60 G PCM 125/75 G PCM 125/100 G PCM 125/125 G		PCM 125/60 T PCM 125/75 T PCM 125/100 T PCM 125/125 T	B x A 90 x 90 L x S 113.5 x 113.5
PCM 150 **Y** x **X** 180 mm 130 mm	60 75 100 125	44.0 61.3 86.3 111.3	PCM 150/60 G PCM 150/75 G PCM 150/100 G PCM 150/125 G		PCM 150/60 T PCM 150/75 T PCM 150/100 T PCM 150/125 T	B x A 140 x 90 L x S 163.5 x 113.5
PCM 175 **Y** x **X** 180 mm 180 mm	60 100	44.0 86.3	PCM 175/60 G PCM 175/100 G		PCM 175/60 T PCM 175/100 T	B x A 140 x 140 L x S 163.5 x 163.5
PCM 200 **Y** x **X** 255 mm 180 mm	60 75 100 150	44.0 61.2 86.3 135.9	PCM 200/60 G PCM 200/75 G PCM 200/100 G PCM 200/150 G		PCM 200/60 T PCM 200/75 T PCM 200/100 T PCM 200/150 T	B x A 215 x 140 L x S 238.5 x 163.5
PCM 200 X	85 100 125 175	69.6 86.8 111.9 161.5	PCM 200/85 XG PCM 200/100 XG PCM 200/125 XG PCM 200/175 XG		PCM 200/85 XT PCM 200/100 XT PCM 200/125 XT PCM 200/175 XT	

External height **Y**   External width **X**   External depth **Z**   Free internal mounting height **C**   Mounting plate assembly **B** X **A**   Wall mounting **L** X **S**

L (low base) =enclosure with the low 25 mm base, H (high base) = enclosure with the high 50 mm base, XH (extra high base) = enclosure with the extra high 75 mm base, T= smoked transparent cover with black cover screws and black wing heads,   G= grey cover with grey cover screws and grey wing heads.

FIBOX MNX ABS ABS: IP 66/67 and IP 66, IK 07	Z mm	C mm	Including: Enclosure cover with cover screws and wing heads for cover screws, base with mounting plate screws and gasket.		B x A / L x S mm
			ORDER SYMBOL Grey cover	ORDER SYMBOL Smoked transparent cover	
ABS 100 L Y x X 130 mm 80 mm	35 75 100	24.1 65.9 90.9	ABS 100/35 LG ABS 100/75 LG ABS 100/100 LG	ABS 100/35 LT ABS 100/75 LT ABS 100/100 LT	B x A 90 x 40 L x S 113.5 x 63.5
ABS 100 H Y x X 130 mm 80 mm	60 100 125	44.5 86.3 111.3	ABS 100/60 HG ABS 100/100 HG ABS 100/125 HG	ABS 100/60 HT ABS 100/100 HT ABS 100/125 HT	B x A 90 x 40 L x S 113.5 x 63.5
ABS 125 L Y x X 130 mm 130 mm	35 50 75 100	24.0 40.9 65.9 90.9	ABS 125/35 LG ABS 125/50 LG ABS 125/75 LG ABS 125/100 LG	ABS 125/35 LT ABS 125/50 LT ABS 125/75 LT ABS 125/100 LT	B x A 90 x 90 L x S 113.5 x 113.5
ABS 125 H Y x X 130 mm 130 mm	60 75 100 125	44.4 61.0 86.2 111.3	ABS 125/60 HG ABS 125/75 HG ABS 125/100 HG ABS 125/125 HG	ABS 125/60 HT ABS 125/75 HT ABS 125/100 HT ABS 125/125 HT	B x A 90 x 90 L x S 113.5 x 113.5
ABS 150 L Y x X 180 mm 130 mm	35 50 75 100	23.6 40.9 65.9 90.9	ABS 150/35 LG ABS 150/50 LG ABS 150/75 LG ABS 150/100 LG	ABS 150/35 LT ABS 150/50 LT ABS 150/75 LT ABS 150/100 LT	B x A 140 x 90 L x S 163.5 x 113.5
ABS 150 H Y x X 180 mm 130 mm	60 75 100 125	44.0 61.3 86.3 111.3	ABS 150/60 HG ABS 150/75 HG ABS 150/100 HG ABS 150/125 HG	ABS 150/60 HT ABS 150/75 HT ABS 150/100 HT ABS 150/125 HT	B x A 140 x 90 L x S 163.5 x 113.5
ABS 175 H Y x X 180 mm 180 mm	60 100	44.0 86.3	ABS 175/60 HG ABS 175/100 HG	ABS 175/60 HT ABS 175/100 HT	B x A 140 x 140 L x S 163.5 x 163.5
ABS 200 H Y x X 255 mm 180 mm ABS 200 XH	60 75 100 150	44.0 61.2 86.3 135.9	ABS 200/60 HG ABS 200/75 HG ABS 200/100 HG ABS 200/150 HG	ABS 200/60 HT ABS 200/75 HT ABS 200/100 HT ABS 200/150 HT	B x A 250 x 140 L x S 238.5 x 163.5
	85 100 125 175	69.6 86.8 111.9 161.5	ABS 200/85 XHG ABS 200/100 XHG ABS 200/125 XHG ABS 200/175 XHG	ABS 200/85 XHT ABS 200/100 XHT ABS 200/125 XHT ABS 200/175 XHT	

External height Y   External width X   External depth Z   Free internal mounting height C   Mounting plate assembly B X A   Wall mounting L X S

L (low base) =enclosure with the low 25 mm base, H (high base) = enclosure with the high 50 mm base, XH (extra high base) = enclosure with the extra high 75 mm base,
T= smoked transparent cover with black cover screws and black wing heads,   G= grey cover with grey cover screws and grey wing heads.
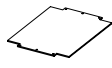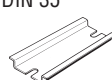
FIBOX MNX

FIBOX MNX PC/ABS

FIBOX MNX (side tab)
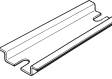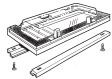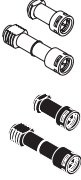
TECHNICAL INFORMATION

PROPERTY	POLYCARBONATE (PC)	ABS	CONFORMITY TO STANDARDS (UL, CSA, CE, Lloyds, BV, FI)
Ingress Protection (EN 60529)	IP66/IP 67 and IP66	IP66/67 and IP66	**USA** Enclosures for Electrical Equipment PC: UL Type 1, 4, 4X, 6 (12 and 13) (UL 50/508) ABS: NEMA 1, 4, 4X, 6 (12 and 13)
Impact Resistance (EN 50102)	IK 08	IK 07	**Canada** Industrial Control Equipment Enclosures for Electrical Equipment/ULc
Temperature Range Celsius (short term) Fahrenheit	-40°. . .120°C -40°. . .250°F	-40°. . .80°C -40°. . .175°F	**Europe** Enclosures for Switch Gear and Control Gear Assemblies EN 50298:1998
Temperature Range Celsius (continuous) Fahrenheit	-40°. . .80°C -40°. . .175°F	-40°. . .60°C -40°. . .140°F	**Europe** Safety of Information Technology Equipment EN 60950
Electrical Insulation	Totally insulated ▣	Totally insulated ▣	**Australia** Enclosures for switch gear and control gear AS 3132-1991
Light Grey Parts Colour	RAL 7035 Industry Grey	RAL 7035 Industry Grey	
Transparent Clear PC Cover	Smoked Grey	Smoked Grey	
Cover Screws	Black or Grey	Black or Grey	
Cover Screws	Polyamide (PA)	Polyamide (PA)	
Gasket	PUR/TPE	PUR/TPE	
Enclosure Flammability Rating	UL94-5V	UL94HB	UL 746 C 5 in. vertical flame test
Glow Wire Test	960°C	650°C	IEC 695-2-1, Self-extinguishing
Non-toxicity	Halogen Free	Halogen Free	
UV resistance	UL 508 720 hours in "Weatherometer"		
Chemical Resistance *	Good	Good	

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

ACCESSORIES

Product	Order symbol	Size mm	
MNX front plate	FP A 100/130 FP A 125/130 FP A 150/180 FP A 175/180 FP A 200/180	120 x 62 120 x 112 170 x 112 170 x 162 237 x 170	
MNX front plate hinge series, 2 pcs incl. screws	HFP 130 HFP 180	130 180	
Mounting plate	MIV 100 MIV 125 MIV 150 MIV 175 MIV 200	98 x 48 98 x 98 148 x 98 148 x 148 223 x 148	
Mounting rail DIN 35	MIV 5 MIV 10 MIV 15 MIV 20	53 x 50 35 x 100 35 x 150 35 x 225	
Mounting rail DIN 15	MIN 5 MIN 10 MIN 15 MIN 20	15 x 50 15 x 100 15x 150 15 x 225	
Mounting foot kit, 4 pcs. incl. screws	FP 22046		
Inspection windows	L02 L04 L06 L08 L10	66 x 77 96 x 77 130 x 77 163 x 77 200 x 77	

Product	Order symbol	Size mm	
Plastic hinges (2 pcs) Incl. mounting screws	TH A		
MNX sealing plug, grey	DP 14553		
MNX sealing plug, black	DP 14553B		
Water plug	MB 12189		
Cover plug	MB 14560		
Ventilation device	MB 10631		
Cover screws	SS 14550L SS 14551H SS 14550BL SS 14551BH		
Wing heads for cover screws	MB 14552 MB 14552B		
Mounting plate screws	MR ZN 2.9x6.5 KN 3.9x9.5	2.9 x 6.5 3.9 x 9.5	

FIBOX MNX

POLYCARBONATE AND ABS ENCLOSURE

MULTI PURPOSE MOUNTING PODS
The 50 mm (H) base features 3 levels for component mounting. The highest level provides component clearance under the Printed Circuit Board. The middle level is ideal for DIN rail mounting. The lowest level permits snap-in mounting of PCB's.

Please ask for Fibox mounting and machining service of terminal blocks and cable glands.

VERSATILE COVERS
Grey opaque or smoked transparent polycarbonate covers provide a stylish finish to any installed equipment. Tooling may be cost effectively changed to customise covers for volume OEM applications.

FIBOX MNX PCM
Enclosure features metric knock-outs moulded in place for easy wiring.

SWING PANEL

FUNCTIONAL COVER SCREWS
The enclosure is supplied with corrosion free plastic cover screws. A wing head screw can be snapped in place for opening without tools. Grey covers are supplied with grey screws. Smoked transparent covers are supplied with black screws.

HINGED INNER PANEL
For instrumentation mounting, aluminum inner panels can be hinged right or left. Unique brackets allow mounting in either base or cover. The brackets permit mounting at variable depths.

RUGGED HINGE
An optional corrosion free hinge is available. Mounted on the outside, attaching hardware is hidden by decorative covers.
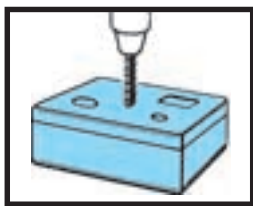
MEMBRANE KEY-BOARD RECESS
The cover features a slightly recessed area ideal for overlays and membrane key pads. Special cover available for size 175/60, see page 9.
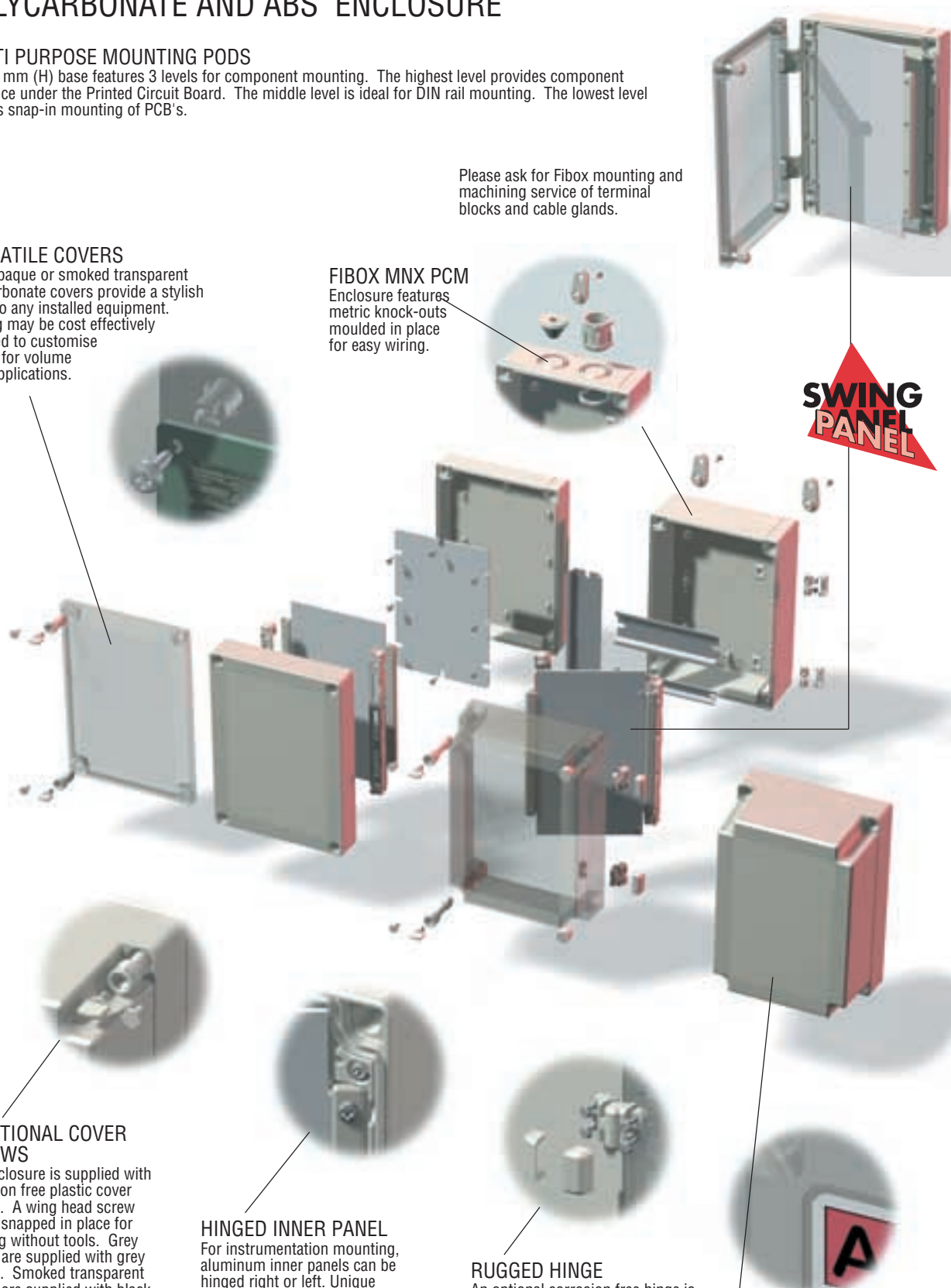
FIBOX MNX

FIBOX CUSTOMIZING SERVICES

FIBOX MACHINING SERVICES

To increase the range and flexibility of our enclosure solutions, Fibox has developed a comprehensive range of services, permitting cost effective customisation for specific applications. The two most important of these are machining services and customised tooling.

Our sophisticated CNC machinery can supply enclosures with holes, cutouts and openings to your specification. This solution is best suited for small to medium volumes of enclosures. Fibox knowledge of enclosure materials ensures that he machining method is compatible with the chosen enclosure material.

Prior to machining a production run, Fibox requires customer approved drawings. Either the customer or Fibox can create these drawings. Enclosure specifications and technical data are available on our latest CD-ROM or on the WEB WWW.FIBOX.COM. CAD support drawings are available in IGES, DWG and DXF formats adaptable to your design system requirements.
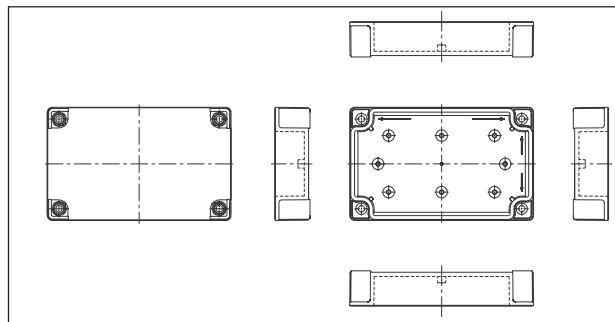
CUSTOMISED TOOLING
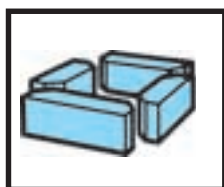
For large volume OEM requirements, it is often possible to customise the moulding of a standard product to meet the OEM's specific needs. Provided the mould is a sophisticated multiple slide mould, any enclosure side may be customised without requiring an entirely new mould. It is important that the OEM consult with Fibox early in his design process to determine what, if any, mould change restrictions exist.

Altering an existing Fibox mould can be a very cost effective alternative to creating a custom mould. In essence, you lease a high volume, standard product mould with minimal initial tooling cost. This can shorten product development times and permit customising even those products with projected short life cycles. Your new product reaches the market sooner.

COLOURED PLASTIC ENCLOSURES

Fibox offers custom moulding of standard enclosures in customer specified colours. Standard colour specifications are based upon the RAL system, however custom colour matching is possible. The type of plastic has significant impact on colour match, colour consistency and cost. Please consult the factory for guidance.

Custom colour molding becomes economical in volumes over 1000 pieces, but lower volumes are possible. Cost adders are based upon increased raw material costs, plus the cost to prepare moulds prior to production and then clean the moulds after production. These mould preparation costs are highly volume dependent.

PAINTED ENCLOSURES

Painting enclosures is recommended for plastic enclosures when volumes do not justify custom moulding. Critical colour matching, if required, is also easier to accomplish with paint. Paint type is dependent upon the choice of enclosure material. Please consult the factory for guidance.

EMC - PLASTIC ENCLOSURES
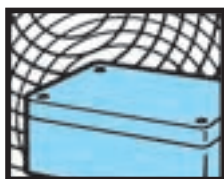
Plastic enclosures can be prepared to provide EMC shielding. Various methods are available, but painting the internal surface with Ni conductive paint is the preferred method. This coating, combined with a conductive gasket material such as CHO-SEAL 1350, can provide significant shielding levels. Proper selection of materials is very application specific. Please consult the factory for guidance.

PRINTED ENCLOSURES

Silk screen printing is recommended for enclosure batches of less than 1000 pieces. This method is mainly suitable for flat surfaces, and can be used for large areas.

Tampo printing is the best solution for volumes greater than 1000 pieces. It is suitable for printing on both flat and curved surfaces of limited size. Tampo printing is also ideal for tight spots like the inside surface of the enclosure.