FIBOX

CARDMASTER 3

The all new, IP 65 rated, Fibox Cardmaster 3 family of enclosures is designed to provide the ultimate solution to instrumentation packaging.

NEW SIZE 25/22 NOW AVAILABLE

www.fibox.com

CARDMASTER 3

SAFE AND SECURE ENCLOSURE SOLUTIONS

The all new, IP 65 rated, Fibox Cardmaster 3 family of enclosures is designed to provide the ultimate solution to instrumentation packaging. Ideal for measurement, monitoring and process control equipment, Cardmaster 3 looks good and performs well. Modern, durable materials are combined with an easy and reliable locking system and transparent door options, to house and protect instrumentation and electronics. PCB guides, knock-outs, a terminal wiring compartment and wall mounting options make installing and using a Cardmaster 3 easy.

- **IP 65 rated**
- **Impact resistant polycarbonate or ABS**
- **Easy and reliable locking system**
- **Separate compartment for terminal wiring**
- **New transparent door**
- **Variety of wall mounting options**
- **Built in PCB card guides**
- **Wide range of models, sizes and accessories**
- **Safe design**
- **No sharp edges when opened**
- **Special knock-outs available with special mould**
- **RoHS compliant**

ENCLOSURES WITHOUT MAIN COVER

Size mm	Code	Order symbol
166 x 160 x 80	7520104	PC 17/16-LC3
166 x 160 x 80	7580104	ABS 17/16-LC3
166 x 160 x 108	7520080	PC 17/16-C3
166 x 160 x 108	7580080	ABS 17/16-C3
213 x 185 x 90	7520081	PC 21/18-C3
213 x 185 x 90	7580081	ABS 21/18-C3
257 x 219 x 122	7520141	PC 25/22-C3
257 x 219 x 122	7580141	ABS 25/22-C3
314 x 260 x 95	7520031	PC 30/25-C3
314 x 260 x 95	7580031	ABS 30/25-C3
383 x 316 x 134	7520032	PC 36/31-C3
383 x 316 x 134	7580032	ABS 36/31-C3

Including: Enclosure base, terminal compartment cover, wall fastening cover plug and mounting screws.

ENCLOSURES WITH SMOKED GREY TRANSPARENT COVER

Size mm	Code	Order symbol
188 x 160 x 106	7525105	PC 17/16-L3*
188 x 160 x 106	7585105	ABS 17/16-L3
188 x 160 x 134	7525165	PC 17/16-3*
188 x 160 x 134	7585165	ABS 17/16-3
235 x 185 x 119	7525154	PC 21/18-3*
235 x 185 x 119	7585154	ABS 21/18-3
280 x 219 x 156	7525134	PC 25/22-3
280 x 219 x 156	7585134	ABS 25/22-3
320 x 260 x 129	7525019	PC 30/25-3
320 x 260 x 129	7585019	ABS 30/25-3
390 x 316 x 167	7525020	PC 36/31-3
390 x 316 x 167	7585020	ABS 36/31-3

Including: Enclosure base, transparent cover, terminal compartment cover, polyamide hinges, locking devices, wall fastening cover plug and mounting screws.

ENCLOSURES WITH POLYCARBONATE FRONT FRAME

Size mm	Code	Order symbol
166 x 160 x 89	7520204	PC 17/16-LFC3*
166 x 160 x 118	7520280	PC 17/16-FC3*
213 x 185 x 102	7520281	PC 21/18-FC3*
257 x 219 x 135	7520241	PC 25/22-FC3
314 x 260 x 110	7520231	PC 30/25-FC3

Including: Enclosure base, terminal compartment cover, closed PC frame front plate with cover screws and mounting screws.

ACCESSORIES

Size mm	Code	Order symbol
MOUNTING PLATES		
136 x 133	7720071	MP 17/16
142 x 200	7720035	MP 21/18
225 x 175	7720140	MP 25/22
282 x 215	7720033	MP 30/25
345 x 258	7720036	MP 36/31
FRONT PLATES		
160 x 100	7720070	FP 17/16
206 x 118	7720026	FP 21/18
250 x 150	7720139	FP 25/22
289 x 189	7720027	FP 30/25
354 x 224	7720028	FP 36/31
FRONT PLATE FRAMES, IP 65 Screw fastening, polycarbonate		
166 x 106 x 16	7720102	FC PC 17/16
213 x 125 x 20	7720100	FC PC 21/18
257 x 157 x 30	7720111	FC PC 25/22
296 x 196 x 30	7720112	FC PC 30/25
COVERS		
187 x 106 x 30	7720123	CM 17/16-3T
233 x 125 x 31	7720122	CM 21/18-3T
279 x 157 x 36	7720134	CM 25/22-3T
318 x 196 x 36	7720094	CM 30/25-3T
386 x 233 x 37	7720113	CM 36/31-3T

HINGE AND LATCH SETS

Large enclosures (30/25-36/31) without main cover can be changed to hinged versions by ordering cover and hinge&latch set.

	7720417	SET 17/16-21/18-3
	7720424	SET 25/22-3
	7720418	SET 30/25-3
	7720419	SET 36/31-3

WALL MOUNTING LUG		
For 17/16-25/22	5510674	FP 10674
FASTENING LUG SET FOR DIN RAIL		
For 17/16-25/22	7720464	MB 20064 SET

TECHNICAL INFORMATION FOR CARDMASTER 3

PROPERTY	POLYCARBONATE (PC)	ABS
Ingress Protection (EN 60529)	IP65	IP65
Impact Resistance (EN 62262)	K 08/IK 07	IK 07
Temperature Range (short term)	-40°. . .120°C; -40°. . .250°F	-40°. . .80°C; -40°. . .175°F
Temperature Range (continuous)	-40°. . .80°C; -40°. . .175°F	-40°. . .60°C; -40°. . .140°F
Electrical Insulation	Totally insulated ⧈	Totally insulated ⧈
Light Grey Parts Colour	RAL 7035, Industry Grey	RAL 7035, Industry Grey
Transparent Clear PC Cover	Smoked Grey	Smoked Grey
Latches (PA)	RAL 5023 Blue	RAL 5023 Blue
Gasket	PUR/EPDM	PUR/EPDM
Flammability rating	UL94V-0	UL94HB
Glow Wire Test (IEC 695-2-1)	960°C	650°C
Non-toxicity	Halogen Free	Halogen Free
UV resistance (UL 508)	720 hours in "Weatherometer"	
Chemical Resistance [1]	Good	Good

CONFORMITY TO STANDARDS (UL, CE, FI, Gost R)
USA Enclosures for Electrical Equipment
PC: UL Type 1 and 12K; UL 746 C-5V flame test (UL 50/508)*UL type 4x
PC/ABS: NEMA 1, 6, 12 and 13
Canada Industrial Control Equipment
Enclosures for Electrical Equipment/ULc
Empty enclosures for low-voltage switchgear and controlgear assemblies EN 62208:2003 (50298:1998)
Europe Safety of Information Technology Equipment EN 60950
Australia Enclosures for switch gear and control gear AS 3132-1991
GostR - Gost Russian certificate of conformity
RoHS directive 2002/95/EC

Data subject to change without notice. [1]Consult separate raw material data for more detailed information

CUSTOMISED ENCLOSURES

All Fibox enclosures can be customised to the customer's requirements by employing modern machinery available at all major Fibox customer service centres. CAD drawing files of standard enclosures are available at **www.fibox.com**. Factory technical assistance is also available to aid the engineer with creating the most cost-effective customisation that will meet his needs. Buying a customised enclosure from Fibox insures ongoing consistency and quality.

Local Fibox customisation service centre move the Fibox factory closer to the customer's location, which means improved and faster service, with lower costs.

SPECIAL COLOUR MOULDING

Where machining eases the mounting and other usability of the final product and shortens the production time at the FIBOX customer, colouring is a recommendable way of increasing brand identity. Even colouring some parts of the whole enclosure can give a nice touch.

Custom colour moulding is feasible for batches of 500 pieces and becomes truly cost effective for single moulding runs of 1000 units or more.

"Fibox has the ability to engineer enclosures specifically to our needs, this has contributed significantly to the success of the Pulsar Ultra range. The enclosures are attractive and now with the availability of the enhanced CM3, a new look can be given to our products, without loosing the functionality."

Keith Flint, Sales & Marketing Director of Pulsar Process Measurement Ltd

"We simply supply a drawing and Fibox does the rest. The enclosures arrive ready for us to use, which saves us a phenomenal amount of assembly time.We see Fibox more as a partner company for our projects than just as a supplier. Another reason why Medem now uses Fibox enclosures exclusively is because the parent material is plastic. When housing electrical components and circuits insulating materials provide obvious benefits, alongside which they don't corrode."

Nigel Thornley, Managing Director of Medem Ltd

"Over the years I have personally used enclosures from all of the major suppliers but Fibox products are by far the best. The quality, value for money and sheer range means there is no longer any need to look elsewhere.We've never had a problem with Fibox."

Steve White, Operations Director of Stirling Technical Engineering Ltd

FIBOX

Fibox Oy Ab, PO Box 16
FI-02421 Jorvas, Finland
Tel. +358 9 2955 31
Fax +358 9 2955 3200
info@fibox.fi, www.fibox.com

FIBOX, a privately owned Finnish company, is one of the largest enclosure manufacturers in the world, and is the market leader in thermoplastic enclosures used for protecting electrical and electronic components operating in hostile environments. FIBOX enclosures are manufactured in modern factories located in Finland, Germany, China and Republic of Korea.

FIBOX CARDMASTER ABS 17/16-3

Sample photo

Order symbol: ABS 17/16-3
Product nbr: 7585165

EAN: 6418074056771

Description: Enclosure, ABS
Remarks: Smoked transparent cover

Including: Base, terminal compartment cover with EPDM gasket and screws for mounting plate/DIN-rail. -3 and -L3 versions: Smoked transparent cover with PUR gasket, hinges, locking devices; FC version: Closed PC frame front plate with PUR gasket and cover screws.

Dimensions:	L	W	H
mm:	160	166	134
inch:	6.3	6.5	5.3

Materials:

Material: ABS
Base colour: RAL 7035
Cover colour: Smoked grey
Gasket material: EPDM and Polyurethane

Temperatures:

Short term: -40 … 80 °C
Continuous: -40 … 60 °C
Short term: -40 … 175 °F
Continuous: -40 … 140 °F

Accessories:

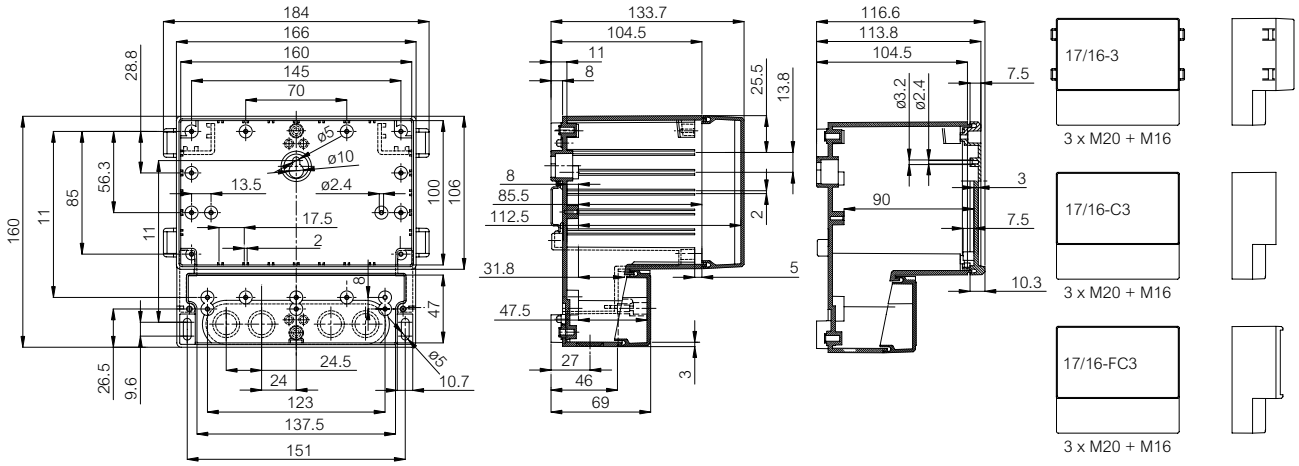
MP 17/16	Mounting plate
FP 17/16	Front plate
CM 17/16-3T	Cover
SET 17/16-21/18-3	Set of hinges and latches

Rating:

Ingress Protection (EN 60529): IP 65
Impact Resistance (EN 50102): IK 07
Electrical insulation: Totally insulated
Halogen free (DIN/VDE 0472, Part 815): Yes
Flammability Rating (UL 746 C 5): UL 94 HB
Glow Wire Test (IEC 695-2-1) °C: 650
NEMA Class: NEMA 1, 3, 3R, 12, 13

Certificates:

Gost R



(c) Fibox OY, Data subject to change without notice

FIBOX CARDMASTER PC 21/18-3

Sample photo

Order symbol: PC 21/18-3
Product nbr: 7525154

EAN: 6418074056733

Description: Enclosure, PC
Remarks: Smoked transparent cover

Including: Base, terminal compartment cover with EPDM gasket and screws for mounting plate/DIN-rail. -3 and -L3 versions: Smoked transparent cover with PUR gasket, hinges, locking devices; FC version: Closed PC frame front plate with PUR gasket and cover screws.

Dimensions:	L	W	H
mm:	213	185	118
inch:	8.4	7.3	4.6

Materials:

Material: PC
Base colour: RAL 7035
Cover colour: Smoked grey
Gasket material: EPDM and Polyurethane

Temperatures:

Short term: -40 ... 120 °C
Continuous: -40 ... 80 °C
Short term: -40 ... 250 °F
Continuous: -40 ... 175 °F

Accessories:

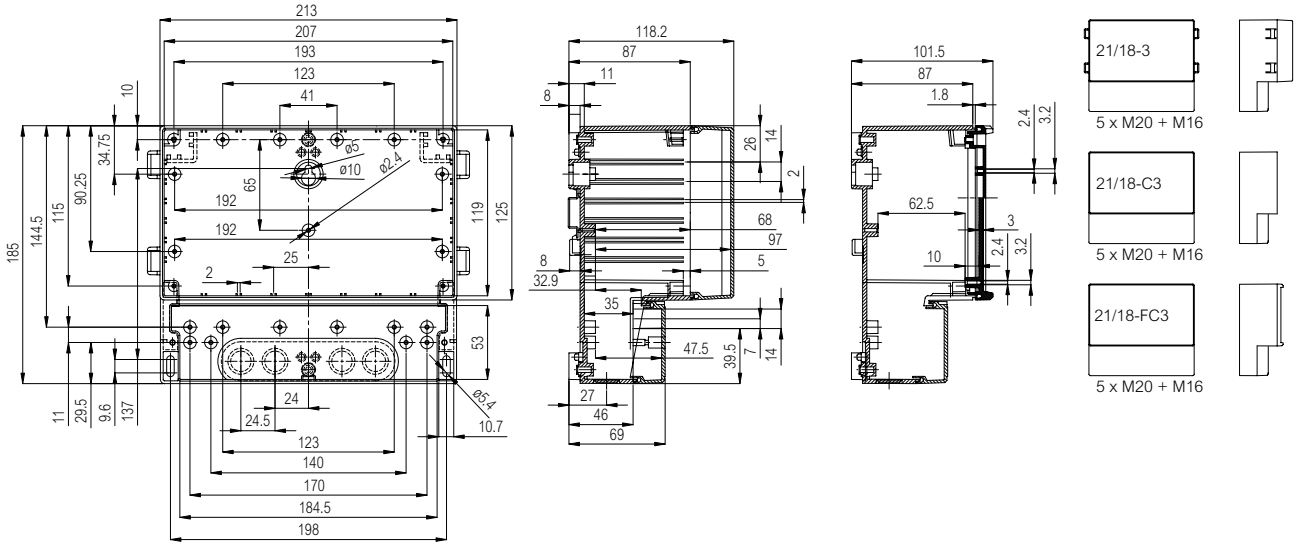
MP 21/18	Mounting plate
FP 21/18	Front plate
CM 21/18-3T	Cover
SET 17/16-21/18-3	Set of hinges and latches

Rating:

Ingress Protection (EN 60529): IP 65
Impact Resistance (EN 50102): IK 08/07
Electrical insulation: Totally insulated
Halogen free (DIN/VDE 0472, Part 815): Yes
UV resistance: UL 508
Flammability Rating (UL 746 C 5): UL 94 5V
Glow Wire Test (IEC 695-2-1) °C: 960
NEMA Class: NEMA 1, 3, 3R, 4X, 12, 13

Certificates:

Underwriters Laboratories
Fimko
Europe EN 50298 1998
UL Canada
Gost R



(c) Fibox OY, Data subject to change without notice

FIBOX CARDMASTER ABS 30/25-3

Sample photo

Order symbol: ABS 30/25-3
Product nbr: 7585019

EAN: 6418074056795

Description: Enclosure, ABS
Remarks: Smoked transparent cover

Including: Base, terminal compartment cover with EPDM gasket and screws for mounting plate/DIN-rail. -3 and -L3 versions: Smoked transparent cover with PUR gasket, hinges, locking devices; FC version: Closed PC frame front plate with PUR gasket and cover screws.

Dimensions:	L	W	H
mm:	296	256	123
inch:	11.7	10.1	4.8

Materials:

Material: ABS
Base colour: RAL 7035
Cover colour: Smoked grey
Gasket material: EPDM and Polyurethane

Temperatures:

Short term: -40 … 80 °C
Continuous: -40 … 60 °C
Short term: -40 … 175 °F
Continuous: -40 … 140 °F

Accessories:

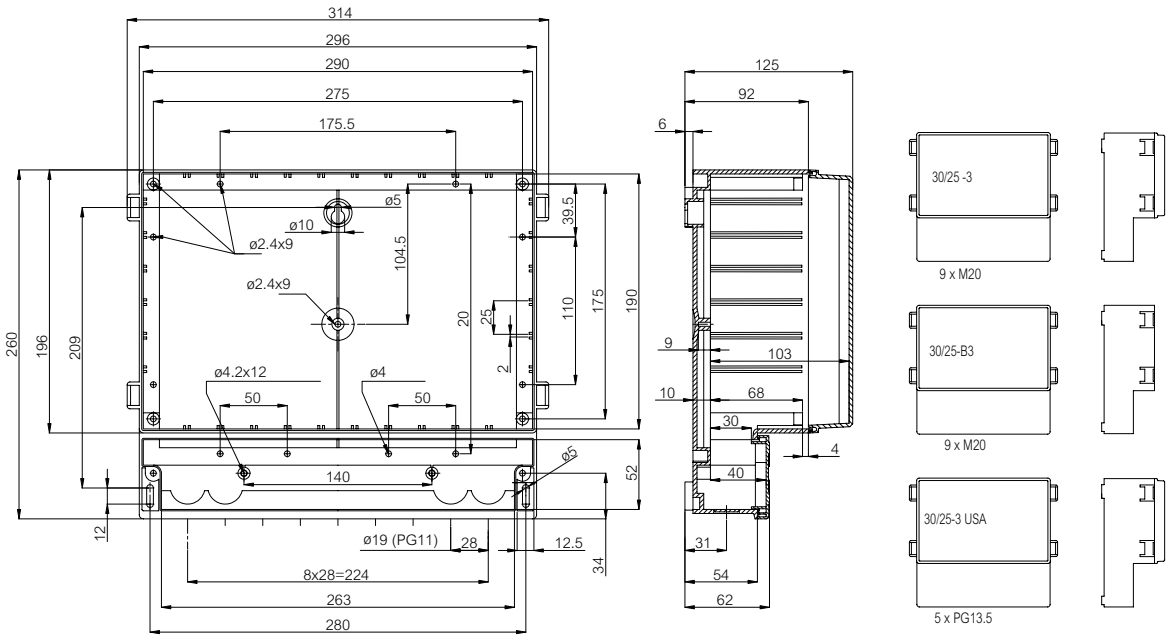
MP 30/25	Mounting plate
FP 30/25	Front plate
CM 30/25-3T	Cover
SET 30/25-3	Set of hinges and latches

Rating:

Ingress Protection (EN 60529): IP 65
Impact Resistance (EN 50102): IK 07
Electrical insulation: Totally insulated
Halogen free (DIN/VDE 0472, Part 815): Yes
Flammability Rating (UL 746 C 5): UL 94 HB
Glow Wire Test (IEC 695-2-1) °C: 650
NEMA Class: NEMA 1, 3, 3R, 12, 13

Certificates:

Gost R



(c) Fibox OY, Data subject to change without notice

FIBOX CARDMASTER PC 36/31-3

Sample photo

Order symbol: PC 36/31-3
Product nbr: 7525020

EAN: 6418074056757

Description: Enclosure, PC
Remarks: Smoked transparent cover

Including: Base, terminal compartment cover with EPDM gasket and screws for mounting plate/DIN-rail. -3 and -L3 versions: Smoked transparent cover with PUR gasket, hinges, locking devices; FC version: Closed PC frame front plate with PUR gasket and cover screws.

Dimensions:	L	W	H
mm:	363	316	162
inch:	14.3	12.4	6.4

Materials:

Material: PC
Base colour: RAL 7035
Cover colour: Smoked grey
Gasket material: EPDM and Polyurethane

Temperatures:

Short term: -40 ... 120 °C
Continuous: -40 ... 80 °C
Short term: -40 ... 250 °F
Continuous: -40 ... 175 °F

Accessories:

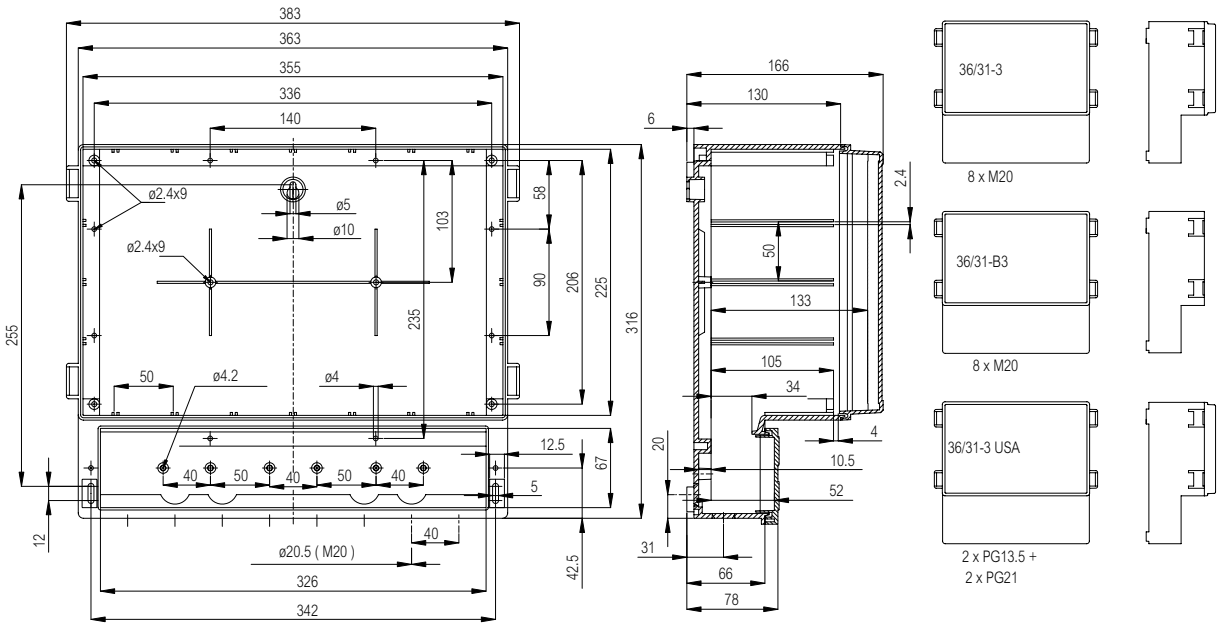
MP 36/31	Mounting plate
FP 36/31	Front plate
CM 36/31-3T	Cover
SET 36/31-3	Set of hinges and latches

Rating:

Ingress Protection (EN 60529): IP 65
Impact Resistance (EN 50102): IK 08/07
Electrical insulation: Totally insulated
Halogen free (DIN/VDE 0472, Part 815): Yes
UV resistance: UL 508
Flammability Rating (UL 746 C 5): UL 94 5V
Glow Wire Test (IEC 695-2-1) °C: 960
NEMA Class: NEMA 1, 3, 3R, 12, 13

Certificates:

Underwriters Laboratories
Fimko
Europe EN 50298 1998
UL Canada
Gost R



(c) Fibox OY, Data subject to change without notice