Mersen Canada Toronto Inc

Application Guide



VM-BOX

10 sizes from 5X3X3 to 7X7X6 inches

NEMA/CSA small multipurpose boxes for in- and outdoor applications:

- Electrical control devices push button stations, relays, switches, sensors, definite purpose contactors, IEC controls.
- Instrumentation thermostats, counters, meters, timers and pneumatic controls.
- Industrial controls Electro-mechanical, pneumatic, hydraulic, pump and valve controls
- Customized engineered solutions

Base is made of VALOX® crystalline thermoplastic polyester. Cover is injection moulded in either light grey or clear polycarbonate

> Overview of the range Page 8

Product information Page 9

Dimensional drawings Page 10

Specifications for tender documents Page 93

MultiBox



Small multipurpose boxes

Wide range of small to medium size multipurpose boxes for in- and outdoor applications.

- Automation and control applications in industry, machinery, toolshop and OEM.
- Electronic applications in data and telecom industry.
- As commercial and industrial power distribution boxes.

All boxes are made from polystyrene or glass-fibre reinforced polycarbonate, offering a high protection degree of IP66 with mechanical impact strength of IK07 for polystyrene and IK08 for polycarbonate.

MultiBox enclosures can be easily modified and/or customized (coloured, printed, with cut-outs...)

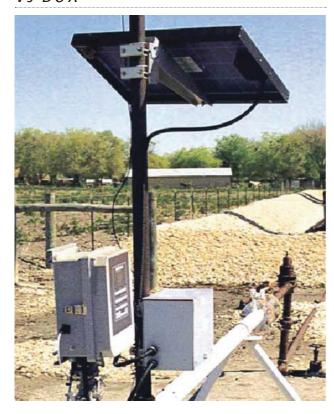
Overview of the range Page 8

Product information Page 11

Dimensional drawings Page 15

Specifications for tender documents Page 92

V.J-BOX



Polyester NEMA sized boxes

Seven NEMA sized boxes according to the Joint

Industrial Council (JIC) for in- and outdoor applications.

- Automation and control applications in oil and steel industry, petrochemical plants, breweries.
- Applications in utilities such as public lighting, traffic control, signalisation.
- For installation in aggressive environments such as shipyards, offshore oil production platforms, mining sites.

All boxes are made of hot moulded, glass-fibre reinforced polyester, offering a high protection degree of IP67/IP66 with a mechanical impact strength of IK10.

VJ-Boxes can be readily worked with conventional tools such as drills, cutting mills, saws, punches, etc.

Overview of the range Page 8

Dimensional drawings Page 20

Specifications for tender documents Page 93



Overview Insulated Boxes

VM	MultiBox IP66	VJ-BOX IP67/IP66	APO IP67				
VM53 119 x 69 x 77/102 mm 4.7 x 2.7 x 3.0/4.0 inches	MB11 65 x 65 x 57/81 mm. 2.6 x 2.6 x 2.2/3.2 inches	VJ606 186 x 186 x 126 mm. 7.3 x 7.3 x 5.0 inches	A1-706 185 x 150 x 130 mm. 7.3 x 5.9 x 5.1 inches				
VM55 119 x 119 x 77/102 mm 4.7 x 4.7 x 3.0/4.0 inches	MB21 94 x 65 x 57/81 mm. 3.7 x 2.6 x 2.2/3.2 inches	VJ806 236 x 186 x 126 mm. 9.3 x 7.3 x 5.0 inches	A31-1207 300 x 185 x 175 mm. 11.8 x 7.3 x 6.9 inches				
VM75 169 x 119 x 77/102/128 mm	MB22 94 x 94 x 57/81 mm 3.7x 3.7 x 2.2/3.2 inches	VJ1008 287 x 236 x 138/176 mm.	A41-1212 300 x 300 x 175 mm.				
6.7 x 4.7 x 3.0/4.0/5.0 inches	MB33 110 x 110 x 66/90 mm. 4.3 x 4.3 x 2.6/3.5 inches	11.3 x 9.3 x 5.4/6.9 inches	11.8 x 11.8 x 6.9 inches				
169 x 169 x 77/128/153 mm 6.7 x 6.7 x 3.0/5.0/6.0 inches	MB42	338 x 287 x 142/180 mm. 13.3 x 11.3 x 5.6/7.1 inches	370 x 300 x 175 mm. 14.6 x 11.8 x 6.9 inches				
	130 x 94 x 57/81 mm. 5.1 x 3.7 x 2.2/3.2 inches MB44 130 x 130 x 75/99 mm.	VJ1412 389 x 338 x 170/208 mm. 15.3 x 13.3 x 6.7/8.2 inches	A51-1912 485 x 300 x 175 mm. 19.1 x 11.8 x 6.9 inches				
	5.1 x 5.1 x 3.0/3.9 Inches MB52 180 x 94 x 57/81 mm. 7.1 x 3.7 x 2.2/3.2 inches	VJ1614 440 x 389 x 170/208 mm. 17.3 x 15.3 x 6.7/8.2 inches	A81-2212 555 x 300 x 175 mm.				
	MB53 180 x 110 x 90/111/165 mm. 7.1 x 4.3 x 3.5/4.4/6.5 inches	VJ1816	21.9 x 11.8 x 6.9 inches A61-2412				
	MB65	491 x 440 x 243 mm. 19.3 x 17.3 x 9.6 inches	600 x 300 x 175 mm. 23.6 x 11.8 x 6.9 inches				
	182 x 180 x 90/111/165/215 mm		A11-2414 600 x 370 x 175 mm. 23.6 x 14.6 x 6.9 inches				
	254 x 180 x 90/111/165/215 mm. 10.0 x 7.1 x 3.5/4.4/6.5/8.5 inches		A12-2424				
	361 x 254 x 111/165/215 mm. 14.2 x 10.0 x 4.4/6.5/8.5 inches		600 x 600 x 175 mm. 23.6 x 23.6 x 6.9 inches				



Applications

(include but not limited to:)

- Electrical control devices push button stations, relays, switches, sensors, definite purpose contactors, IEC controls.
- Instrumentation thermostats, counters, meters, timers and pneumatic controls.
- Industrial controls Electro-mechanical, pneumatic, hydraulic, pump and valve controls
- Customized engineered solutions

Sizes

• 10 sizes from 5X3X3 to 7X7X6 inches.

S tandards

- CSA certified Type 2, 3, 4 & 5
- NEMA/CEMA rated 3, 3R, 4, 4X, 12 and 13
- IEC 529 rated IP 66-11
- CONSTRUCTION
- Base is made of VALOX® crystalline thermoplastic polyester.
 VALOX® resin offers a performance profile engineered for demanding end-use environments
- Cover is injection moulded in either light grey or clear polycarbonate

A ccessories

• Back panels, DIN rails, hinged window kits

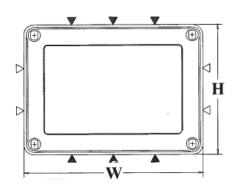
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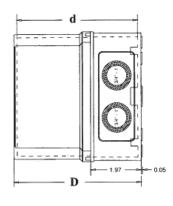
Opaque	Cover	Clear (Cover	Insid	e Dimens	ions	Outsid	le Dimen	sions	Back	DIN-RAILS		
w/o knockouts	w/ knockouts	w/o knockouts	w/ knockouts	Height	Width	Depth	Height	Width	Depth	Plate	Short side	Long side	
VM533	VM533 VM533K	VM533CT	VM533CTK	4,69	2,72	2,72	5,03	3,06	3.02	VMBP53	DRS533	DRL533	
VIVIOUS			VIVISSOTI	119	69	69	128	78	77	A IAIDL 22	DIGGGG		
VM534	VM534K	VM534CT	VM534CTK	4,69	2,72	3,72	5,03	3,06	4,02	VMBP53	DRS534	DRL534	
VIVIOG	VIVIOSAR	V IVI 3340 I	VIVISSACTION	119	69	94	128	78	102	VIVIDE 33		DINESSA	
VM553	VM553K	VM553CT	VM553CTK	4,69	4,69	2,72	5,03	5,03	3,02	VMBP55	DRS553	DRL553	
VIVIOUS	VIVIOUSIX		VIVIDOGCIA	119	119	69	128	128	77	VIVIDESS			
VMEEA	VMEEAV	VMEEACT	VM554CTK	4,69	4,69	3,72	5,03	5,03	4,02	VMBP55	DRS554	DDI EE4	
VM554	VM554K	VM554CT		119	119	94	128	128	102	VIVIDESS		DRL554	
VM753	VM753 VM753K	VM753CT	VM753CTK	6,65	4,69	2,72	7	5,03	3,02	VMBP75	DRS753	DRL753	
VIVI755	VIVI7 JUN	V IVI 7 55 C I	VIVI753CTK	169	119	69	178	128	77				
VM754	54 VM754K	VM754CT	VM754CTK	6,65	4,69	3,72	7	5,03	4,02	VMBP75	DRS754	DRL754	
V IVI / 3-4	VIVI7 J4IX	V IVI 7 340 I	VIVI7 340 TK	169	119	94	178	128	102	VIVIDE 73	DIGITA	DIXLIJ4	
VM755	VM755K	VM755CT	VM755CTK	6,65	4,69	4,72	7	5,03	5,02	VMBP75	DRS755	DRL755	
VIVI7 33	VIII7 3310	VIVI7 330 I	VIII/ 330 11K	169	119	120	178	128	127	VIIIDI 73	DICOTOS	DKL133	
VM773	VM773K	VM773CT	VM773CTK	6,65	6,65	2,72	7	7	3,02	VMBP77	DDC772	DDI 772	
VIVI//3	VIVI773K	VIVI//3C1	VIVITTSCIK	169	169	69	178	178	77	VIVIBP//	DRS773	DRL773	
VM775	VM775 VM775K VM	VM775CT	VM775CTK	6,65	6,65	4,72	7	7	5,02	VMBP77	DRS775	DRL775	
VIVITO		VIVI / JOC I	VIVI//OCIK	169	169	120	178	178	127	VIVIDE//	פוופאם	DKL113	
				6,65	6,65	5,72	7	7	6,02		DRS776	DRL776	
VM776	VM776K	VM776CT	VM776CTK	169	169	145	178	178	153	VMBP77			

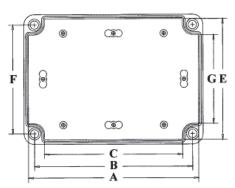
NOTE: - Millimeters



VM Dimensional Drawings







Size	A		R		В		R		R		R		R			С		E		F		G		Н		w		D	Knoc	kouts
Size		А		Ь		C		_		г		G		п		VV	U		Тор	Side										
VM533							2.72	188.11	2.24	56.85	1.46	37.05			3.06	77.83	3.02	76.67		1										
VM534	4.69 119.00	110.02	119.03 4.21	106.85	3.43	87.05	2.12	100.11	2.24	30.03	1.40	37.03	5.03	127.83	3.00	11.03	4.02	102.02	2											
VM553		119.03	4.21	100.00									5.05	127.03		3.02	76.67													
VM554																	4.02	102.02												
VM753							4.69	119.03	4.21	106.85	3.43	87.05			5.03	127.83	3.02	76.67		2										
VM754																	4.02	102.02												
VM755	6.65	160 77	6.18	156 05	F 40	F 40	F 40	F 40	407.05							7.00	477.00			5.02	127.42	3								
VM773	6.65 168.	168.77 6.18	0.18	0.10	0.18	0.10	0.10	156.85	156.85	5.40	137.05							7.00	177.83			3.02	76.67							
VM775															6.65	168.77	6.18	156.85	5.40	137.05			7.00	177.83	5.02	127.42		3		
VM776																	6.02	152.83												

NOTE: - Millimeters

	Part Number	Dimensions											
Window Tone			Overall			Height							
Window Type		Ler	Width		Ler			Width					
		in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.		
Standard Hinged Window	VM-CTF53	5,12	130	3,03	77	4,41	112	1,97	50	1,26	20		
	VM-CTF73	6,42	163			5,71	145						
Standard Spring Hinged	VM-CTFS53	5,12	130			4,41	112						
Window	VM-CTFS73	6,42	163			5,71	145						
Daire d Course History d Miss days	VM-CTH53	5,12	130			4,41	112						
Raised Cover Hinged Window	VM-CTH73	6,42	163			5,71	145						
Raised Cover Window with Spring Hinge	VM-CTHS53	5,12	130			4,41	112						
	VM-CTHS73	6,42	163			5,71	145						

Specifications for Tender





- The range comprises 10 different basic box sizes, from 119 x 69 mm up to 169 x 169 mm, with up to 4 different cover depths and two designs:
- with opaque cover
- with clear cover
- They are suitable for applications that require light weight and durability.
- The base is manufactured from VALOX crystalline thermoplastic polyester.
- VALOX crystalline thermo-plastic polyester bases come with smooth side walls or with several Metric knock-outs.
- Cover is injection moulded in either light grey or clear polycarbonate
- The lid is fi xed to the base by means of cover screws in polyamide.
- VALOX crystalline thermo-plastic polyester boxes can withstand temperatures from -35°C up to 120°C
- The box offers maximum protection to the user and the equipment by means of total insulation and a protection degree as per IEC 60529 and also complies with the impactresistance standard as per EN 50102.

This protection covers the total volume of the enclosure according to EN 50298.

- Boxes are corrosion-resistant and do not require any maintenance.
- Materials are halogen-free polycarbonate and low-halogen polystyrene.
- Boxes are self-extinguishing according UL94-V2.
- Boxes offer high resistance to chemical and aggressive influences.
- The box is secured to the wall by screws directly through the base, direct through the four corner shafts of the base (under the cover screws) or by using external mounting brackets.
- Boxes may be fitted with external hinges and/or padlocking as a protection against unauthorised access.
- It is possible to mount DIN pro fi les as well as mounting plates.
- Boxes bear the CSA approval.
- Tailor-made boxes are available upon request: coloured, painted, overprinted, machine fi nished, EMC shielded.



Polyester NEMA sized boxes

- Boxes are designed in accordance with the "Joint Industrial Council" (JIC) USA.
- The range consists of seven different sizes ranging from 186 x 186 mm (6 x 6 inch) to 491 x 440 mm (18 x 16 inch) in three designs:
 - with screwed lid
 - with stainless steel hinges
 - with plastic hinges.
- The base and the lid are made of selfextinguishing, glass-fibrereinforced and halogenfree polyester, dyed in mass RAL 7036 (dark grey).
- The glass-fibre content is a minimum of 20%.
- The base also comes with four threaded inserts
- M4 for securing a mounting plate.
- Boxes can withstand an ambient temperature of 50° to +150°C.
- The box offers maximum protection to the user and equipment thanks to the total insulation ☐ and the IP67/IP66 protection degree as per IEC 60529. It also complies with impact resistance degree IK10 as per EN 50102.

This protection covers the total volume, protected space, of the box according to EN 50298.

- Boxes are corrosion-resistant and do not require any maintenance.
- The base is fitted with moulded-in mounting brackets suitable for external mounting.
- Boxes have the UL certification mark, as per UL standard 508 types 3, 3R, 3S, 4, 4X, 6, 12 and 13.
 They also comply with CSA certification mark as per C22.2 no. 94 types 3, 3R, 3S, 4, 4X, 6, 12 and 13.
- Boxes also bear the following certification mark: AS Australian Standards 3132-1991.