

Metalclad SERIES

Wilco Industrial Switchgear

technical data

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Metalclad SERIES Wilco Industrial Switchgear

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WILCO INDUSTRIAL SWIT

Metalciad SERIES

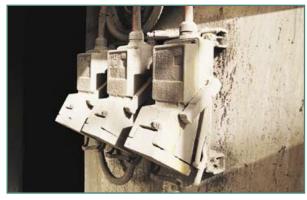
Wilco Industrial Switchgear

Wilco Industrial Switchgear is precisely engineered and carefully manufactured to satisfy customer needs and provide versatile solutions to meet any requirements.

Industrial switchgear, being one of the most important components of industry, has to be tough, safe, able to take hard knocks and give reliable and dependable performance under many adverse conditions.

Wilco Metal Clad satisfies these challenges and more with the use of maximum strength die cast aluminium.

Wilco Metal Clad Series has been tested for protection against the ingress of water and dust to up to International Protection Rating IP66. It is testimony to the excellence in both manufacture and performance that in many instances the Wilco range of Industrial Switchgear exceeds this high level of protection.



Welding outlets at Adelaide Brighton Cement







CHGEAR - AS TOUGH AS YOUR SITUATION DEMANDS

Dust resistant, hoseproof and UV resistant

Because its tough aluminium enclosure casing is dust resistant, hoseproof and UV resistant, the Metal Clad series is suitable for heavy industrial environments.



Strength to withstand accidental damage

Metal Clad's die cast aluminium body gives greater damage resistance than Plastic ranges. It can withstand even a severe 'crunch' from something hard and heavy, that would normally damage electrical equipment.

Safety in operation

For safety's sake all the switches have been equipped with pad locking in the 'Off' position.



If damaged the live connections are unlikely to create a safety hazard as the Metal body of the unit is earthed.

A further safeguard against error is the switch plug interlock system, which is an integral part of each unit. The switch must be in the Off position for a plug to be inserted or withdrawn from a live coupling.

Construction

Aluminium alloy is used to provide maximum strength, light weight, and good surface finish. All Metal Clad Series are finished in highly visible UV stabilised 2 pack polyurethane for ease of identification and durability.

Ease of installation

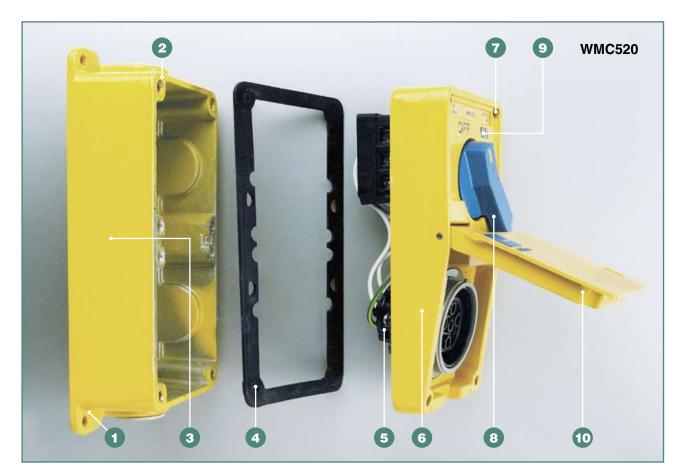
All Metal Clad Series are provided with external mounting facilities to ensure IP integrity and allow larger internal area to aid installation.









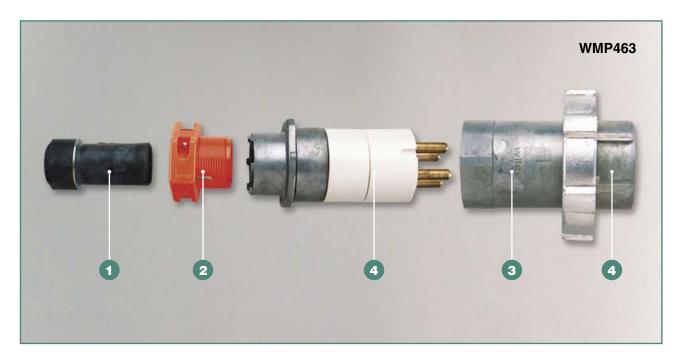


- Easy installation. Variety of fixing devices. Does not compromise IP integrity.
- 2 Versatile cable entry (1x32 / 1x25mm). Accepts both conduit and cable glands in a variety of types and sizes.
- Olie cast aluminium enclosure (backbox). Solid die cast aluminium backbox will not twist when mounting on uneven walls.
- Visible gasket. Your guarantee that the unit is securely sealed.
- 5 IP66 protection.
 Suitable for areas where dust or water environments are extreme.

- Die cast aluminium. Maximum strength. Light weight. Corrosion resistance.
- 7 Captive stainless steel combination head screws. For corrosion resistance and effortless installation.
- Interlock facility on combinations.
 Prevents insertion or withdrawal of a plug when switch is in the ON position.
- Raised on/off markings. For safety's sake, on/off markings will never wear off.
- Automatically closing flap.
 To ensure IP rating is maintained.







1 Cable gland

Extremely flexible cable gland with positive grip to ensure dependable sealing.

2 Cord grip

Metric thread for easy retrofit with conduit and cable glands. Screw to lock cord cap to ensure IP rating.

3 Plug body

Die cast aluminium for superior strength.

4 Terminal housing

Sturdy terminal housing for durability and years of service.

• Fully interchangeable with other manufacturers' products.

CHEMICAL COMPARISONS

A	7	EXCELLENT RESISTANCE	Recommended - no adverse effects after extended exposure.
Е	3	GOOD RESISTANCE	Acceptable - minimal loss of mechanical properties after long periods of exposure.
C	5	FAIR RESISTANCE	Marginal acceptability - loss of mechanical properties after long periods of exposure.
С)	NOT RECOMMENDED	Not recommended for use.

Product Type (colour)	Aluminium
Hydrochloric Acid (20%) ⁴	D
Nitric Acid (10%)	D
Sulphuric Acid (to 10%)	С
Sodium Hydroxide (20%)	D
Potassium Hydroxide (50%)	D
Fuel (1, 2, 3, 5E, 5G, 6)	Α
Eniline Oil	С
Propane (Liquified) 1 2	Α
Hydrolic Oils (Petroleum) 1	Α
Methyl Alcohol ⁶	В
Aromatic Hydrocarbons	Α
Ether ³	Α
Ketones	В
Xylene ²	Α
Acetone ⁶	Α
Detergents	Α
Sea Water	С
Sodium Hypochlorite 3 (to 20%)	С
Hydrogen Peroxide (10%)	Α

- 1. PVC Satisfactory to 72° F
- 2. Polypropylene Satisfactory to 72° F
- 3. Polypropylene Satisfactory to 120° F
- 4. Buna-N Satisfactory for "O" rings
- 5. Polyacetal Satisfactory to 72° F
- 6. Ceramag Satisfactory to 72° F

6

STANDARDS

Metal Clad Series comply with the relevant Standards and Approvals.

AS1939	1991 Classification of Degrees and Protection
AS3133	Approval and Test Specification – Air Break Switches
AS3947	Low Voltage Switchgear and Control Gear
AS3123	Approval and Test Specification – Plus, Socket Outlets and Couplers for General Industrial Application



COMBINATION SWITCHED SOCKET OUTLETS

The Metal Clad Series is modular enabling back boxes (enclosure) to be rotated 180° to allow different entry sizes. All products have large contrasting switch knobs that allow operation even with a gloved hand. The interlock mechanism ensures plug is not withdrawn or inserted when the power is on. Keylock and neon versions available.

Options available

 With Keylock – add CK to catalogue number, eg. WMC110 becomes WMC110-CK.

Note: 56 Series plugs are not suitable with Wilco Metal Clad due to interlock system. Special products can be manufactured to suit Clipsal plugs.



AC Utilisation categories to AS3947.3

U_i Insulation Voltage

U_e Operational Voltage

I_{the} Conventional Enclosed Thermal Current



		l _{the}	U _i /U _e	le(A)	Utilisati	on Cat
Catalogue No.	No. of Switch Poles	(A)	(V)	AC21	AC22	AC23
WMC110	1	10	250			
WMC110-2FR	1	10	250			
WMC110-2RF	1	10	110			
WMC110-2FRDP	2	10	250			
WMC110-2RFDP	2	10	110			
WMC110-DP	2	10	250			
WMC115	1	15	250			
WMC115-TT	1	15	32			
WMC115-DP	2	15	250			
WMC120	2	20	250	20	20	20
WMC132	2	32	250	32	32	32
WMC310	2	10	500	10	10	10
WMC410	3	10	500	10	10	10
WMC510	3	10	500	10	10	10
WMC320	3	20	500	20	20	20
WMC420	3	20	500	20	20	20
WMC520	3	20	500	20	20	20
WMC432	3	32	500	32	32	32
WMC532	3	32	500	32	32	32
WMC440	3	40	500	40	40	40
WMC540	3	40	500	40	40	40
WMC450	3	50	500	50	50	40
WMC550	3	50	500	50	50	40
WMC463	3	63	500			
WMC563	3	63	500			





		mi	m²						
C Rating	No. of Sockets	Min	Max/ Cont	IP Rating	O/A Dims (H)x(W)x(D)	Matching Plug Straight (Plastic)	Matching Plug Angled (Plastic)	Matching Plug Straight (Alum)	Socket Config
M160	3 Flat	1	6	66	217x93x89	WIP110			Α
M160	2 Flat & Round Earth	1	6	66	217x93x89	WIP110-2FR			С
M160	2 Round & Flat Earth	1	6	66	217x93x89	WIP110-2RF			J
M100	2 Flat & Round Earth	1	6	66	217x93x89	WIP110-2FR			С
M100	2 Round & Flat Earth	1	6	66	217x93x89	WIP110-2RF			J
M100	3 Flat	1	6	66	217x93x89	WIP110			Α
M160	3 Flat	1.5	6	66	217x93x89	WIP115			В
M160	2 Polarised	1.5	6	66	217x93x89	WIPT115-TT			D
M100	3 Flat	1.5	6	66	217x93x89	WIP115			В
M180	3 Round	2.5	10	66	258x115x120	WIP120B	WIPM120		Н
M240	3 Round	2.5	10	66	258x115x120	WIP132B	WIPM132	P132	I
M180	3 Round	1	16	66	258x115x120	WIP310B			Υ
M180	4 Round	1	16	66	258x115x120	WIP410B	WIPM410	P410M	K
M180	5 Round	1	16	66	258x115x120	WIP510B	WIPM510	P510M	Q
M180	3 Round	1	16	66	258x115x120	WIP310B			Z
M180	4 Round	2.5	16	66	258x115x120	WIP420B	WIPM420		L
M180	5 Round	2.5	16	66	258x115x120	WIP520B	WIPM520		R
M240	4 Round	4	16	66	258x115x120	WIP432B	WIPM432	P432	N
M240	5 Round	4	16	66	258x115x120	WIP532B	WIPM532	P532	S
M240	4 Round	10	16	66	258x115x120		WIPM440		0
M240	5 Round	10	16	66	258x115x120		WIPM540		T
M240	4 Round	10	16	66	370x155x185	66P450		WMP450	A1
M240	5 Round	10	16	66	370x155x185	66P550		WMP550	A2
	4 Round	16	25	66	370x155x185	66P463		WMP463	А3
	5 Round	16	25	66	370x155x185	66P563		WMP563	A4

Cond Term Size in

SURFACE SOCKET OUTLETS

Wilco Surface Socket Outlets range in size from 250V 10A to 500V 63A. All socket outlets feature hoseproof and dust resistant flaps. External mounting and easy installation to suit a variety of fixing devices without compromising IP integrity.





WMB420

	I _{the}	U _i /U _e		Cond Te	rm Size nm²						
Catalogue No.	(A)	(V)	No. of Sockets	Min	Max/ Cont	IP Rating	O/A Dims (H)x(W)x(D)	Matching Plug Straight (Plastic)	Matching Plug Angled (Plastic)	Matching Plug Straight (Alum)	Socket Config
WMB110	10	250	3 Flat	1	6	66	127x93x82	WIP110			Α
WMB110-2FR	10	250	2 Flat & Round Earth	1	6	66	127x93x82	WIP110-2FR			С
WMB110-2RF	10	110	2 Round & Flat Earth	1	6	66	127x93x82	WIP110-2RF			J
WMB110-PP	10	250	2 Parallel Flat	1	6	66	127x93x82	WIPT110- PP			D
WMB115	15	250	3 Flat	1.5	6	66	127x93x82	WIP115			В
WMB115-TT	15	32	2 Pin Polarised	1.5	6	66	127x93x82	WIPT115-TT			Е
WMB120	20	250	3 Round	2.5	6	66	150x115x110	WIP120B	WIBM120		Н
WMB132	32	250	3 Round	2.5	10	66	150x115x110	WIP132B	WIBM132	P132	1
WMB410	10	500	4 Round	1.5	6	66	150x115x110	WIP410B	WIBM410	P410C	K
WMB510	10	500	5 Round	1.5	6	66	150x115x110	WIP510B	WIBM510	P510C	Q
WMB420	20	500	4 Round	2.5	6	66	150x115x110	WIP420B	WIBM420		L
WMB520	20	500	5 Round	2.5	6	66	150x115x110	WIP520B	WIBM520		R
WMB720	20/20	500	7 Round	2.5 (1)	6(4)	66	150x115x110	WIP720B	WIBM720		D
WMB432	32	500	4 Round	4	10	66	150x115x110	WIP432B	WIBM432	P432	N
WMB532	32	500	5 Round	4	10	66	150x115x110	WIP532B	WIBM532	P532	S
WMB550	50	500	5 Round	10	25	66	183x115x182	66P550		WMP550	A1
WMB463	63	500	4 Round	10	25	66	183x115x182	66P463		WMP463	A3
WMB563	63	500	5 Round	10	25	66	183x115x182	66P563		WMP563	A4

APPLIANCE INLETS

Wilco appliance inlets range in size from 250V 32A to 500V 63A. The 50A and 63A versions feature a downward facing, angled pin housing which enables extension socket plugs to be neatly connected without bulky right angle entry. A screwed lock-ring is standard on all models to secure extension sockets and appliance connectors, and ensure IP66 integrity.





WMB563R

		I _{the}	U _i /U _e			Term n mm²						
Catalog	ue No.	(A)	(V)	No. of Sockets	Min	Cont		O/A Dims (H)x(W)x(D)	Matching Plug Straight (Plastic)	Matching Plug Angled (Plastic)	Matching Plug Straight (Alum)	Socket Config
WMB1	132R	32	250	3 Round	6	16	66	148x115x109	WIP132RB	WIPM132R		I
WMB4	432R	32	500	4 Round	6	16	66	148x115x109	WIP432RB	WIPM432R		N
WMB	532R	32	500	5 Round	6	16	66	148x115x109	WIP532RB	WIPM532R		S
WMB	550R	50	500	5 Round	10	25	66	183x115x109		-	WMP550R	A2
WMB	563R	63	500	5 Round	10	25	66	183x115x109		-	WMP563R	A4



SURFACE SWITCHES



56 Series Surface Switches are available from 250V 10A to 500V 63A. They incorporate a positive rotary switch action. On and Off positions are clearly marked moulded and pad printed – they will never wear off.

A provision for a 8mm padlock is provided for locking off. If locking is required in the On position simply drill a hole where necessary.

Options available:

• With Key – add CK to catalogue number, eg. WMS110 becomes WMS110-CK.







WMS320 WMS110 WMS432

		l _{the}	U _i /U _e	le(A)	Utilisatio	on Cat		Conductor Terminal			
Catalogue No.	Number of Switched Poles	(A)	(V)	AC21A	AC22A	AC23A	C Rating	Min	Max. Cont	IP Rating	O/A Dims (H)x(W)x(D)
WMS110	1	10	250				M160	1	6	66	127x93x98
WMS110-I	1	10	250				M100	1	6	66	127x93x98
WMS110-TW	1	10	250				M160	1	6	66	127x93x98
WMS116	1	16	250				M100	1	6	66	127x93x98
WMS120	1	20	250				M160	1	6	66	127x93x98
WMS120-TW	1	20	250				M160	1	6	66	127x93x98
WMS310	3	10	500	10	10	10	M180	2.5	16	66	150x115x125
WMS320	3	20	500	20	20	20	M180	2.5	16	66	150x115x125
WMS332	3	32	500	32	32	32	M240	4	16	66	150x115x125
WMS350	3	50	500	50	50	40	M240	10	16	66	150x115x125
WMS432	3	32	500					4	16	66	150x115x152

PUSH-BUTTON CONTROL STATIONS



This rugged range consists of five different combination of Stop / Start control stations.

The stations are ideal in wet, dusty or dirty conditions for controlling motor starters on pumps, saws, compressors, lathes and processing lines.

WMPB1ST	Start Control Station (Green Flush)
WMB1SP	Stop Control Station (Red extended)
WMPB1SPMH	Emergency Stop Station. This station has a mushroom head non-latching (Red extended)
WMPB1SPML	Emergency Stop Station. This station has a mushroom head with twist to reset (Red extended)
WMPB2SPST	Combination Start/Stop Control Station with momentary operation push buttons (Green Flush/Red extended)
WMPBSPMST	Combination Start/Stop Station with mushroom head stop button non-latching (Green flush/Red extended)
WMPB2SPMLST	Combination Start/Stop Station with mushroom head stop button latching (Green flush/Red extended)



	I _{the}	U _i /U _e	le(A) Utilisation Cat			Conductor Terminal		
Catalogue No.	(A)	(V)	AC15 240V	Button Colour	Min	Max. Cont	IP Rating	O/A Dims (H)x(W)x(D)
WMPB1ST	10	250	4	Green	1	4	66	150x115x122
WMPB1SP	10	250	4	Red	1	4	66	150x115x126
WMPB1SPMH	10	250	4	Red	1	4	66	150x115x136
WMPB1SPML	10	250	4	Red	1	4	66	150x115x136
WMPB2SPST	10	250	4	Green/Red	1	4	66	150x115x126
WMPB2SPMST	10	250	4	Green/Red	1	4	66	150x115x130
WMPB2SPMLST	10	250	4	Green/Red	1	4	66	150x115x130

SURFACE DIN ENCLOSURES WITH SOCKET OUTLETS



The DIN rail assembly is fitted as standard to accommodate DIN rail equipment to a maximum of 4 x 17.7mm modules suitable for time switches, MCBs, isolating switches, relays and RCDs.



	l _{the}	U _i /U _e			rm Size nm²						
Catalogue No.	(A)	(V)	No. of Sockets	Min Max/ Cont		IP Rating	O/A Dims (H)x(W)x(D)	Matching Plug Straight (Plastic)	Matching Plug Angled (Plastic)	Matching Plug Straight (Alum)	Socket Config
WMCDIN110	10	250	3 Flat	1	6	66	258x115x116	WIP110			Α
WMCDIN115	15	250	3 Flat	1.5	6	66	258x115x116	WIP115			В
WMCDIN120	20	250	3 Round	2.5	6	66	258x115x116	WIP120B	WIPM120		Н
WMCDIN510	10	500	5 Round	1.5	16	66	258x115x116	WIP510B	WIPM510	P510M	Q
WMCDIN520	20	500	5 Round	2.5	16	66	258x115x116	WIP520B	WIPM520		R
WMCDIN532	32	500	5 Round	6	16	66	258x115x116	WIP532B	WIPM532	P532	S
WMCDIN563	63	500	5 Round	16	25	66	323x115x185	66P563		WMP563	A4
WMDIN2		500				66	258x115x116				

SURFACE JUNCTION BOXES

Ideal for heavy industrial applications including mines and T-OFF JUNCTION multiple number of entries. Sizes are provided and earthing continuity is easily accommodated.

Catalogue No.	No. of Gangs	O/A Dims (H)x(W)x(D)	IP Rating	Entry Size and Number
WMJB252	1	148x115x109	66	2x25
WMJB253	1	148x115x109	66	3x25
WMJB254	1	148x115x109	66	4x25



WMJB252

PLUGS AND APPLIANCE CONNECTORS

Wilco Metal Clad plugs and appliance connectors are available from 32A to 63Amp. All are fitted with screw-rings for securing to socket outlets. This ensures IP66 rating.





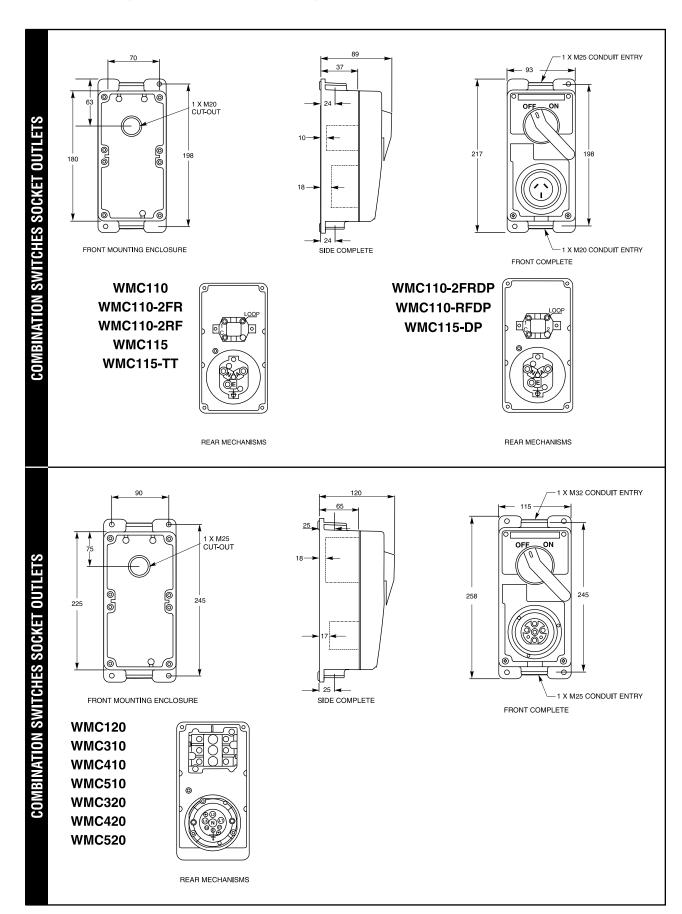
1 WMP450R

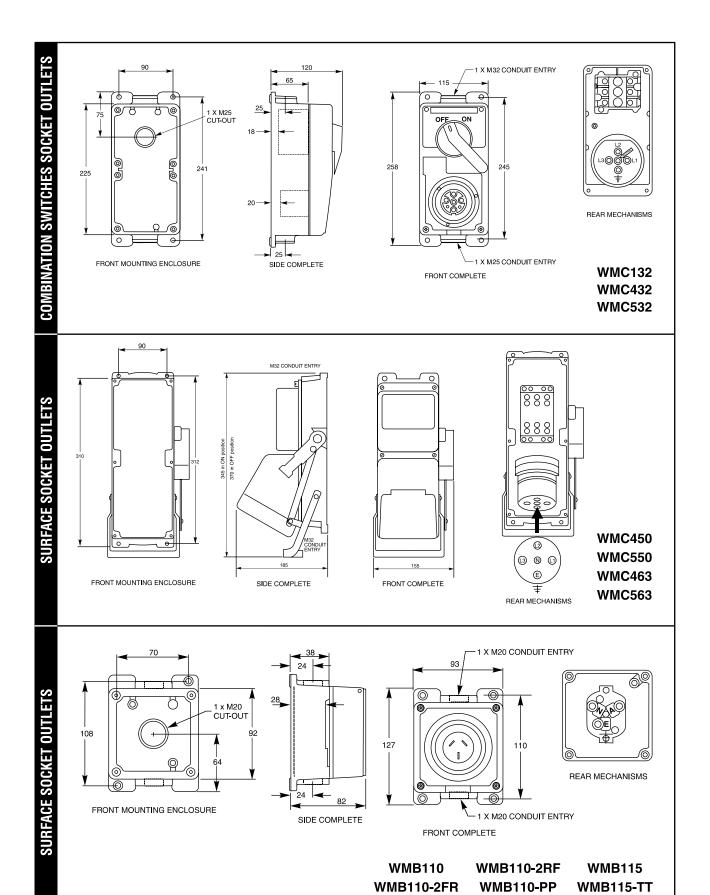
2 WMP550

	l _{the}	U _i /U _e				
Catalogue No.	(A)	(V)	No. of Pins	IP Rating	Thread Gland Nut	Pin Config
P410C	10	500	4	66	M32	K
P510C	10	500	5	66	M32	Q
P432	32	500	4	66	M32	N
P532	32	500	5	66	M32	S
WMP450	50	500	4	66	M32	A1
WMP550	50	500	5	66	M32	A2
WMP463	63	500	4	66	M32	A3
WMP563	63	500	5	66	M32	A4
Appliar	ice Connect	ors				
WMP450R	50	500	4	66	M32	A1
WMP550R	50	500	5	66	M32	A2
WMP463R	63	500	4	66	M32	А3
WMP563R	63	500	5	66	M32	A4

TECHNICAL DRAWINGS

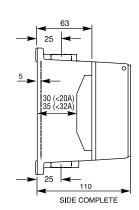
Note: As the range is made up of cast moulding, dimensions are approximates only.

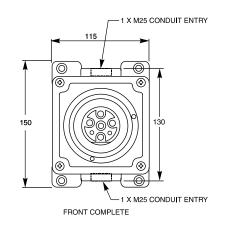




90 1 X M25 CUT-OUT 75

FRONT MOUNTING ENCLOSURE



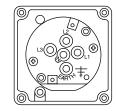


WMB120 WMB132 WMB410 WMB510 WMB420 WMB520

WMB720

REAR MECHANISMS

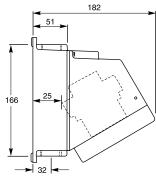
WMB432 WMB532



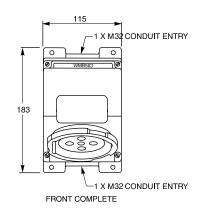
REAR MECHANISMS

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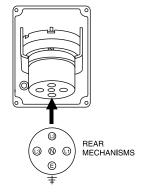
FRONT MOUNTING ENCLOSURE

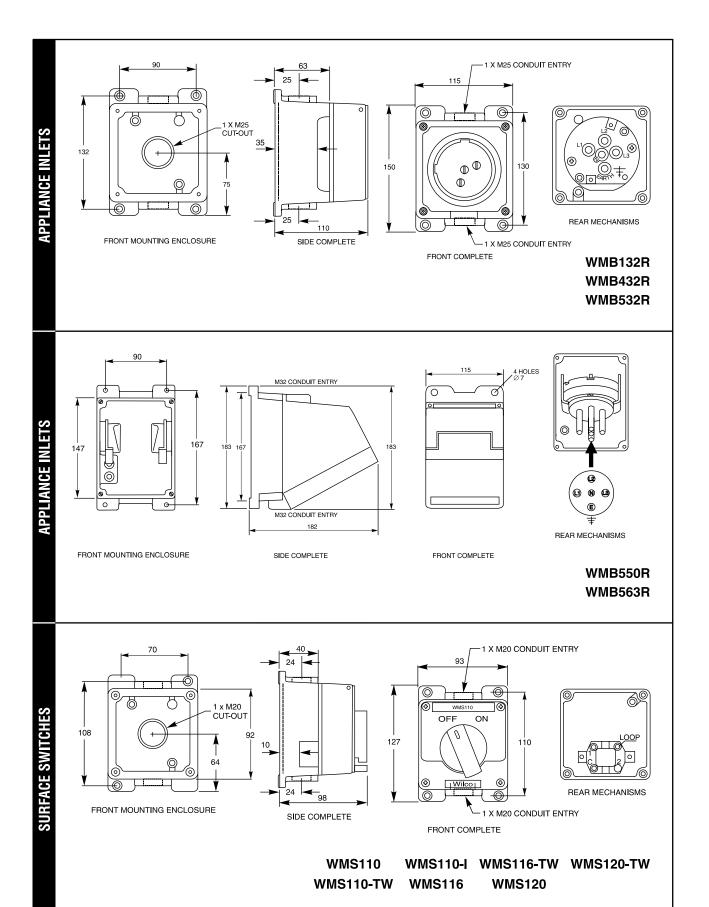


SIDE COMPLETE

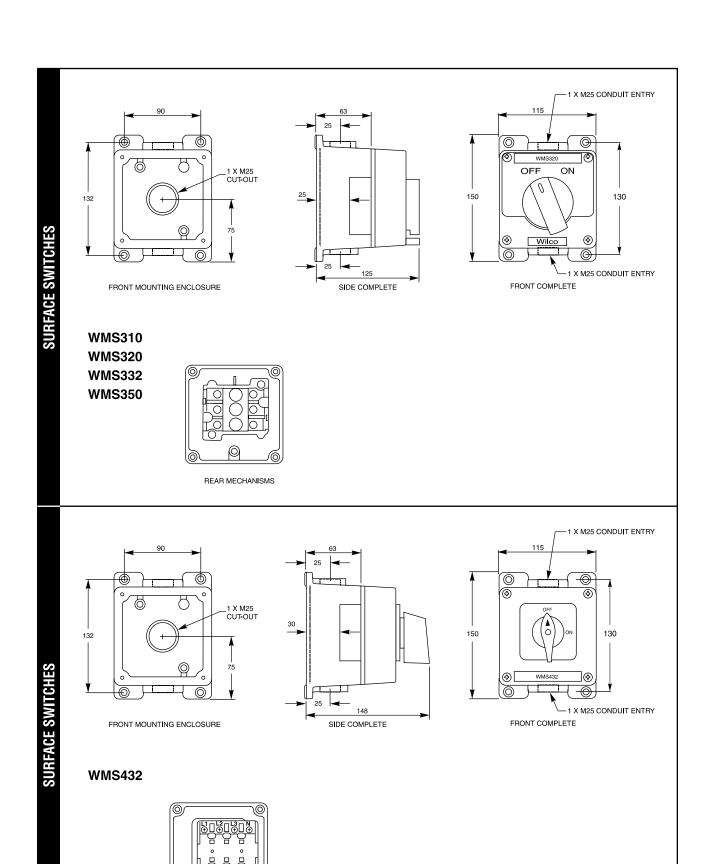


WMB463 WMB563

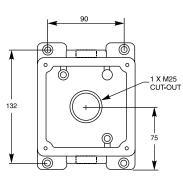




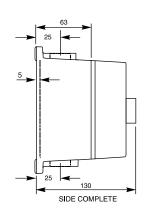
TECHNICAL DRAWINGS

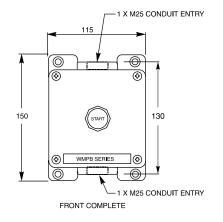


REAR MECHANISMS



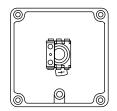
FRONT MOUNTING ENCLOSURE



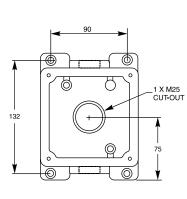


WMPB1ST

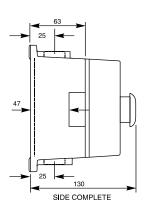
PUSH-BUTTON CONTROL STATIONS

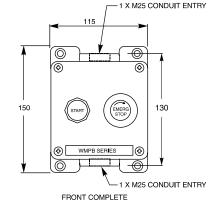


REAR MECHANISMS

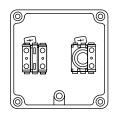


FRONT MOUNTING ENCLOSURE

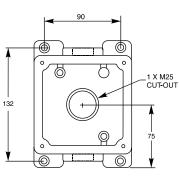




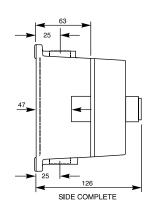
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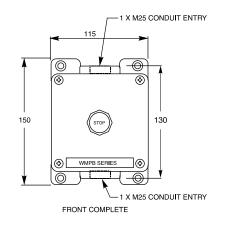


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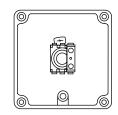


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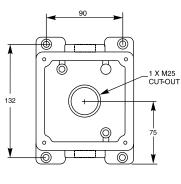




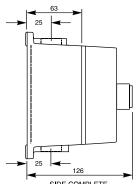
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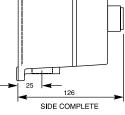


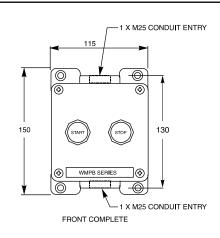
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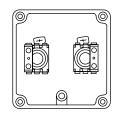
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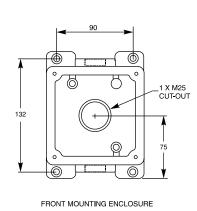


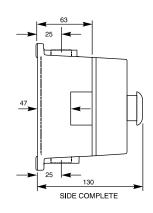


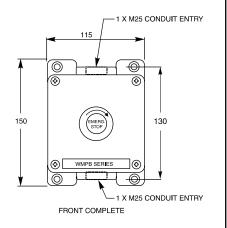
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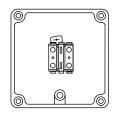
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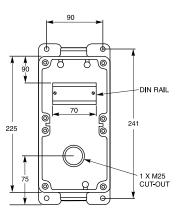




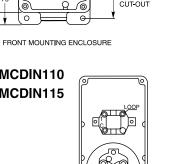
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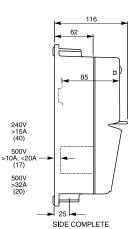
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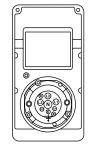
WMCDIN110 WMCDIN115



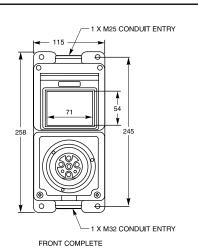
REAR MECHANISMS



WMCDIN120 WMCDIN510 WMCDIN520



REAR MECHANISMS

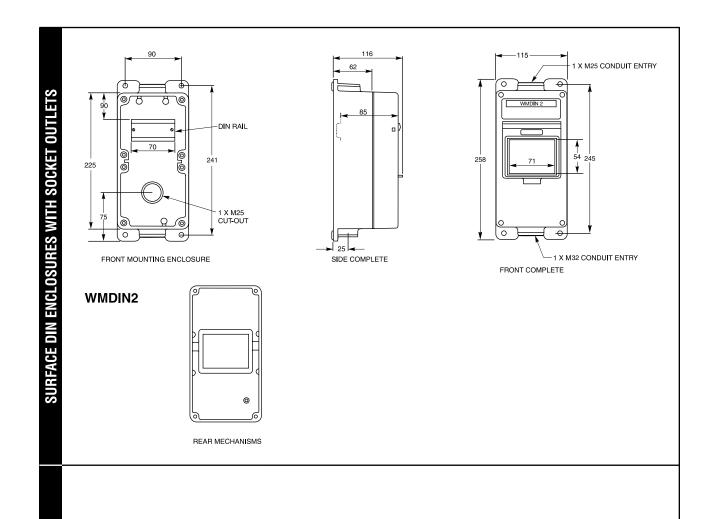


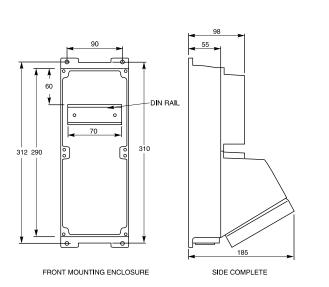
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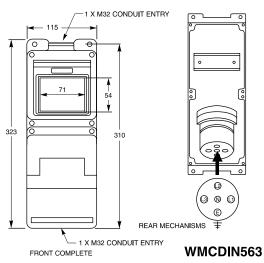


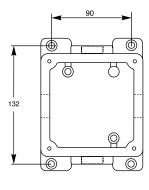
REAR MECHANISMS

TECHNICAL DRAWINGS

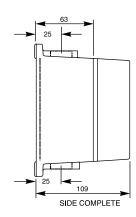


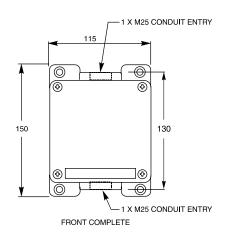




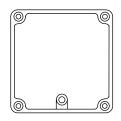


FRONT MOUNTING ENCLOSURE

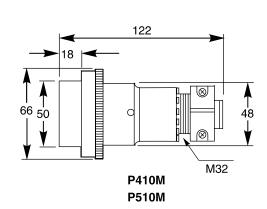


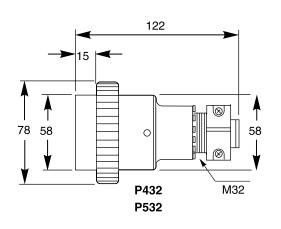


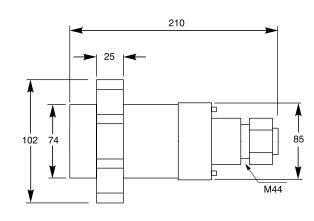
WMJB252 = 2 X M25 Conduit Entry WMJB253 = 3 X M25 Conduit Entry WMJB254 = 4 X M25 Conduit Entry



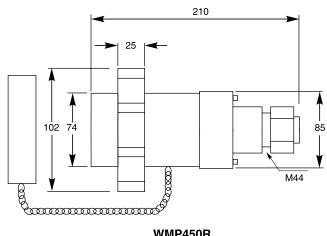
REAR MECHANISMS







WMP450 WMP550 WMP463 WMP563



WMP450R WMP550R WMP463R WMP563

WILCO METALCLAD SWITCHGEAR

PLUG CONFIGURATIONS

SOCKET CONFIGURATIONS

	2 a	and	3 Pin		
	10A 250V	A		20A 250V	F
1	15A 250V	В		10A 250V	G
•	10A 250V	C		20A 250V	н
•	10A 250V	D		32A 250V	-
•	15A 32V Polarised	Ш	8	10A 110V	C
		4 F	Pin		
	10A 500V	K		40A 500V	0
*	20A 500V	L		50A 500V	P
	32A 500V	N			
		5 F	Pin		
	10A 500V	Q		40A 500V	т
3	20A 500V	R		50A 500V	U
	32A 500V	S			
6 Pin					
	10A 500V	V			
		7 F	Pin		
*	10A 500V	w		20A 500V	x

	2 and 3 Pin					
	10A 250V	A		20A 250V	F	
	15A 250V	В		10A 250V	G	
(1)	10A 250V	C		20A 250V	н	
	10A 250V	D		32A 250V	_	
-	15A 32V Polarised	Ш	••	10A 110V	_	
		4 F	Pin			
	10A 500V	K		40A 500V	0	
	20A 500V	г		50A 500V	P	
	32A 500V	N				
		5 F	Pin			
	10A 500V	Q		40A 500V	т	
	20A 500V	R		50A 500V	U	
	32A 500V	S				
6 Pin						
	10A 500V	V				
	7 Pin					
	10A 500V	W		20A 500V	x	

SOCKET & PIN CONFIGURATIONS (AS3123 - 1994)

	Plug					
3 0 12 E 0 1	50A 500V	A1	3 12	63A 500V	АЗ	
3 • 12 N • 1	50A 500V	A2	3 L2 N L1	63A 500V	Α4	

	Socket				
(C)	50A 500V	A1	O.2 O O.1 EO	63A 500V	АЗ
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	50A 500V	A2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	63A 500V	Α4

IP RATING CHART

PROTECTION AGAINST CONTACT OF EXTERNAL SOLIDS

	TEST	PROTECTION
D	No test applied.	No specific protection.
0	No test applied.	Inherent degree of protection.
1		Protected against solid objects larger than 50mm (eg. accidental contact with hand).
2		Protected against solid objects larger than 12mm (eg. contact with finger).
3		Protected against solid objects larger than 2.5mm (eg. tools and fingers).
4	- T	Protected against solid objects larger than 1mm (eg. fine tools and wires).
5	•	Protected against dust. Prevent entry in sufficient quantity to interfere with satisfactory operation.
6	•	Completely protected against dust.

Defined by: IEC 529 DIN 40050 CEI 70-1

PROTECTION AGAINST PENETRATION OF LIQUIDS

	TEST	PROTECTION
D	No test applied.	No specific protection.
0	No test applied.	Inherent degree of protection.
1	•	Protected against drops of water falling vertically.
2		Protected against drops of water falling at up to 15° from the vertical.
3		Protected against spraying water at up to 60° from the vertical.
4		Protected against splashing water from all directions.
5		Protected against jets of water from all directions.
6		Protected against jets of water of similar force to heavy seas.
7		Protected against the effects of immersion.
8		Protected against the effects of submersion.

Defined by: IEC 529

To Australian Standards AS 1939 - 1991 'Classification of degrees of Protection' provided by enclosures for electrical equipment.

TECHNICAL TERMS

The following technical terms are brief descriptions indicating the tests involved to attain ratings. For further information refer to the standards indicated.

M-Rating (Refer AS 3133)

Clipsal switches and switched socket outlets are marked with an M-Rating. This indicates that these products have been tested and found suitable for switching locked rotor current.

In part, this test involves 50 operations, make and break of the nominated locked rotor current at 0.5 power factor lagging. The switch will not fail to interrupt the current or fail in any way electrically or mechanically.

AC-21 (refer AS 3947)

Switching of resistive loads, including moderate overloads. In part this involves 5 make and break operations, at 1½ times rated current and 1.1 times rated voltage at 0.95 cos.

Additional mechanical no load and electrical endurance tests at rated current and voltage at 0.95 cos are conducted.

AC-22 (refer AS 3947)

Switching of mixed resistive and inductive loads, including moderate overloads. In part this involves 5 make and break operations at 3 times rated current and 1.1 times rated voltage at 0.65 cos.

Additional mechanical no load and electrical endurance tests at rated current and voltage at 0.65 cos.

AC-23 (refer AS 3947)

Switching of motor loads or highly inductive loads. In part this involves 5 make and break operations at:

- 10 times rated current make.
- 1.1 times rated voltage make.
- 0.35 cos.
- 8 times rated current break.
- 1.1 times rated voltage break.
- 0.35 cos.

Additional mechanical at no load and electrical endurance tests at rated current and voltage at 0.35 cos are conducted.

AC-15 (refer AS 3947)

Control of electromagnetic loads (>72VA).



Products of Gerard Industries Pty Ltd

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