

## Protective Devices

### Miniature Circuit Breakers PLSM, PLZM 10kA



- High-quality miniature circuit breakers for commercial and industry applications.
- Contact position indicator red-green.
- Guide for secure terminal connection.
- 3-position DIN rail clip, permits removal from existing busbar system.
- Comprehensive range of accessories suitable for subsequent installation.
- Rated currents up to 63 A.
- Tripping characteristics B, C, D.
- Rated breaking capacity 10 kA according to IEC/EN 60898.

### Miniature Circuit Breakers PLSM, PLZM 10kA, Characteristic B



10kA, B

Rated current (kA)	Type Designation
<b>1-pole</b>	
1	PLSM-B1
1.5	PLSM-B1.5
1.6	PLSM-B1.6
2	PLSM-B2
2.5	PLSM-B2.5
3	PLSM-B3
3.5	PLSM-B3.5
4	PLSM-B4
5	PLSM-B5
6	PLSM-B6
10	PLSM-B10
13	PLSM-B13
16	PLSM-B16
20	PLSM-B20
25	PLSM-B25
32	PLSM-B32
40	PLSM-B40
50	PLSM-B50
63	PLSM-B63



10kA, B

Rated current (kA)	Type Designation
<b>3-pole</b>	
1	PLSM-B1/3
2	PLSM-B2/3
3	PLSM-B3/3
4	PLSM-B4/3
6	PLSM-B6/3
10	PLSM-B10/3
13	PLSM-B13/3
16	PLSM-B16/3
20	PLSM-B20/3
25	PLSM-B25/3
32	PLSM-B32/3
40	PLSM-B40/3
50	PLSM-B50/3
63	PLSM-B63/3



10kA, B

Rated current (kA)	Type Designation
<b>1+N-pole, 2 Module Units (MU)</b>	
2	PLZM-B2/1N
3	PLZM-B3/1N
4	PLZM-B4/1N
6	PLZM-B6/1N
10	PLZM-B10/1N
13	PLZM-B13/1N
16	PLZM-B16/1N
20	PLZM-B20/1N
25	PLZM-B25/1N
32	PLZM-B32/1N
40	PLZM-B40/1N
50	PLZM-B50/1N
63	PLZM-B63/1N



10kA, B

Rated current (kA)	Type Designation
<b>3+N-pole</b>	
1	PLSM-B1/3N
2	PLSM-B2/3N
3	PLSM-B3/3N
4	PLSM-B4/3N
6	PLSM-B6/3N
10	PLSM-B10/3N
13	PLSM-B13/3N
16	PLSM-B16/3N
20	PLSM-B20/3N
25	PLSM-B25/3N
32	PLSM-B32/3N
40	PLSM-B40/3N
50	PLSM-B50/3N
63	PLSM-B63/3N



10kA, B

Rated current (kA)	Type Designation
<b>2-pole</b>	
1	PLSM-B1/2
2	PLSM-B2/2
3	PLSM-B3/2
4	PLSM-B4/2
6	PLSM-B6/2
10	PLSM-B10/2
13	PLSM-B13/2
16	PLSM-B16/2
20	PLSM-B20/2
25	PLSM-B25/2
32	PLSM-B32/2
40	PLSM-B40/2
50	PLSM-B50/2
63	PLSM-B63/2



10kA, B

Rated current (kA)	Type Designation
<b>4-pole</b>	
1	PLSM-B1/4
2	PLSM-B2/4
3	PLSM-B3/4
4	PLSM-B4/4
6	PLSM-B6/4
10	PLSM-B10/4
13	PLSM-B13/4
16	PLSM-B16/4
20	PLSM-B20/4
25	PLSM-B25/4
32	PLSM-B32/4
40	PLSM-B40/4
50	PLSM-B50/4
63	PLSM-B63/4

## Miniature Circuit Breakers PLSM, PLZM 10kA, Characteristic C



10kA, C

Rated current (In)(A)	Type Designation
<b>1-pole</b>	
0,16	PLSM-C0,16
0,25	PLSM-C0,25
0,50	PLSM-C0,5
0,75	PLSM-C0,75
1	PLSM-C1
1,5	PLSM-C1,5
2	PLSM-C2
3	PLSM-C3
4	PLSM-C4
6	PLSM-C6
10	PLSM-C10
13	PLSM-C13
16	PLSM-C16
20	PLSM-C20
25	PLSM-C25
32	PLSM-C32
40	PLSM-C40
50	PLSM-C50
63	PLSM-C63



10kA, C

Rated current (In)(A)	Type Designation
<b>3-pole</b>	
0,5	PLSM-C0,5/3
1	PLSM-C1/3
1,5	PLSM-C1,5/3
2	PLSM-C2/3
3	PLSM-C3/3
4	PLSM-C4/3
6	PLSM-C6/3
10	PLSM-C10/3
13	PLSM-C13/3
16	PLSM-C16/3
20	PLSM-C20/3
25	PLSM-C25/3
32	PLSM-C32/3
40	PLSM-C40/3
50	PLSM-C50/3
63	PLSM-C63/3



10kA, C

Rated current (In)(A)	Type Designation
<b>1+N-pole, 2 MU</b>	
0,5	PLZM-C0,5/1N
1	PLZM-C1/1N
1,5	PLZM-C1,5/1N
2	PLZM-C2/1N
3	PLZM-C3/1N
4	PLZM-C4/1N
6	PLZM-C6/1N
10	PLZM-C10/1N
13	PLZM-C13/1N
16	PLZM-C16/1N
20	PLZM-C20/1N
25	PLZM-C25/1N
32	PLZM-C32/1N
40	PLZM-C40/1N
50	PLZM-C50/1N
63	PLZM-C63/1N



10kA, C

Rated current (In)(A)	Type Designation
<b>3+N-pole</b>	
0,5	PLSM-C0,5/3N
1	PLSM-C1/3N
1,5	PLSM-C1,5/3N
2	PLSM-C2/3N
3	PLSM-C3/3N
4	PLSM-C4/3N
6	PLSM-C6/3N
10	PLSM-C10/3N
13	PLSM-C13/3N
16	PLSM-C16/3N
20	PLSM-C20/3N
25	PLSM-C25/3N
32	PLSM-C32/3N
40	PLSM-C40/3N
50	PLSM-C50/3N
63	PLSM-C63/3N



10kA, C

Rated current (In)(A)	Type Designation
<b>2-pole</b>	
0,5	PLSM-C0,5/2
1	PLSM-C1/2
1,5	PLSM-C1,5/2
2	PLSM-C2/2
3	PLSM-C3/2
4	PLSM-C4/2
6	PLSM-C6/2
10	PLSM-C10/2
13	PLSM-C13/2
16	PLSM-C16/2
20	PLSM-C20/2
25	PLSM-C25/2
32	PLSM-C32/2
40	PLSM-C40/2
50	PLSM-C50/2
63	PLSM-C63/2



10kA, C

Rated current (In)(A)	Type Designation
<b>4-pole</b>	
0,5	PLSM-C0,5/4
1	PLSM-C1/4
1,5	PLSM-C1,5/4
2	PLSM-C2/4
3	PLSM-C3/4
4	PLSM-C4/4
6	PLSM-C6/4
10	PLSM-C10/4
13	PLSM-C13/4
16	PLSM-C16/4
20	PLSM-C20/4
25	PLSM-C25/4
32	PLSM-C32/4
40	PLSM-C40/4
50	PLSM-C50/4
63	PLSM-C63/4

## Miniature Circuit Breakers PLSM, PLZM 10kA, Characteristic D



10kA, D

Rated current (kA)	Type Designation
<b>1-pole</b>	
0,5	PLSM-D0,5
1	PLSM-D1
1,5	PLSM-D1,5
2	PLSM-D2
3	PLSM-D3
4	PLSM-D4
6	PLSM-D6
10	PLSM-D10
13	PLSM-D13
16	PLSM-D16
20	PLSM-D20
25	PLSM-D25
32	PLSM-D32
40	PLSM-D40



10kA, D

Rated current (kA)	Type Designation
<b>3-pole</b>	
0,5	PLSM-D0,5/3
1	PLSM-D1/3
1,5	PLSM-D1,5/3
2	PLSM-D2/3
3	PLSM-D3/3
4	PLSM-D4/3
6	PLSM-D6/3
10	PLSM-D10/3
13	PLSM-D13/3
16	PLSM-D16/3
20	PLSM-D20/3
25	PLSM-D25/3
32	PLSM-D32/3
40	PLSM-D40/3



10kA, D

Rated current (kA)	Type Designation
<b>1+N-pole, 2 NU</b>	
0,5	PLZM-D0,5/1N
1	PLZM-D1/1N
1,5	PLZM-D1,5/1N
2	PLZM-D2/1N
3	PLZM-D3/1N
4	PLZM-D4/1N
6	PLZM-D6/1N
10	PLZM-D10/1N
13	PLZM-D13/1N
16	PLZM-D16/1N
20	PLZM-D20/1N
25	PLZM-D25/1N
32	PLZM-D32/1N
40	PLZM-D40/1N



10kA, D

Rated current (kA)	Type Designation
<b>3+N-pole</b>	
0,5	PLSM-D0,5/3N
1	PLSM-D1/3N
1,5	PLSM-D1,5/3N
2	PLSM-D2/3N
3	PLSM-D3/3N
4	PLSM-D4/3N
6	PLSM-D6/3N
10	PLSM-D10/3N
13	PLSM-D13/3N
16	PLSM-D16/3N
20	PLSM-D20/3N
25	PLSM-D25/3N
32	PLSM-D32/3N
40	PLSM-D40/3N



10kA, D

Rated current (kA)	Type Designation
<b>2-pole</b>	
0,5	PLSM-D0,5/2
1	PLSM-D1/2
1,5	PLSM-D1,5/2
2	PLSM-D2/2
3	PLSM-D3/2
4	PLSM-D4/2
6	PLSM-D6/2
10	PLSM-D10/2
13	PLSM-D13/2
16	PLSM-D16/2
20	PLSM-D20/2
25	PLSM-D25/2
32	PLSM-D32/2
40	PLSM-D40/2



10kA, D

Rated current (kA)	Type Designation
<b>4-pole</b>	
0,5	PLSM-D0,5/4
1	PLSM-D1/4
1,5	PLSM-D1,5/4
2	PLSM-D2/4
3	PLSM-D3/4
4	PLSM-D4/4
6	PLSM-D6/4
10	PLSM-D10/4
13	PLSM-D13/4
16	PLSM-D16/4
20	PLSM-D20/4
25	PLSM-D25/4
32	PLSM-D32/4
40	PLSM-D40/4

**Residual Current Devices PFIM (Conditionally surge current-proof 250 A. type AC)**



ELCB, 2P

Rated current In(A)	Type Designation
2-pole	
16/0.01	PFIM-16/2/001
25/0.03	PFIM-25/2/003
25/0.10	PFIM-25/2/01
40/0.03	PFIM-40/2/003
40/0.10	PFIM-40/2/01
40/0.30	PFIM-40/2/03
63/0.03	PFIM-63/2/003
63/0.10	PFIM-63/2/01
63/0.30	PFIM-63/2/03
63/0.50	PFIM-63/2/05
80/0.03	PFIM-80/2/003
80/0.10	PFIM-80/2/01
80/0.30	PFIM-80/2/03
80/0.50	PFIM-80/2/05



ELCB, 2P

Rated current In(A)	Type Designation
2-pole	
100/0.03	PFIM-100/2/003
100/0.10	PFIM-100/2/01
100/0.30	PFIM-100/2/03



ELCB, 4P

Rated current In(A)	Type Designation
4-pole	
25/0.03	PFIM-25/4/003
25/0.10	PFIM-25/4/01
25/0.30	PFIM-25/4/03
40/0.03	PFIM-40/4/003
40/0.10	PFIM-40/4/01
40/0.30	PFIM-40/4/03
63/0.03	PFIM-63/4/003
63/0.10	PFIM-63/4/01
63/0.30	PFIM-63/4/03
63/0.50	PFIM-63/4/05
80/0.03	PFIM-80/4/003
80/0.10	PFIM-80/4/01
80/0.30	PFIM-80/4/03
80/0.50	PFIM-80/4/05



ELCB, 4P

Rated current In(A)	Type Designation
4-pole	
100/0.03	PFIM-100/4/003
100/0.10	PFIM-100/4/01
100/0.30	PFIM-100/4/03
100/0.50	PFIM-100/4/05

# Pushbuttons, switches and pilot lights Ø 22 with metal bezel

## Pushbuttons



### Pushbuttons, spring return

<b>Type of head</b>		Chromium plated circular bezel							
<b>Degree of protection:</b>		IP 66 / Nema 4X, 13 / Class I							
<b>Mounting (mm)</b>		panel cut-out: Ø 22.5 (22.4 <sup>+0.4</sup> recommended)							
mounting centres		30 (horizontal) x 40 (vertical)							
<b>Depth (mm)</b>		below head: 43							
<b>Connection (1)</b>		Screw clamp terminals							
<b>Type of push</b>		Flush			Flush, booted				
<b>Unmarked</b>		<b>Products</b>		<b>Complete</b>	<b>For user assembly</b>		<b>Complete</b>	<b>For user assembly</b>	
<b>References</b>		black ● N/O	<b>XB4 BA21</b>	ZB4 BZ101	ZB4 BA2	<b>XB4 BP21</b>	ZB4 BZ101	ZB4 BP2	
		green ● N/O	<b>XB4 BA31</b>	ZB4 BZ101	ZB4 BA3	<b>XB4 BP31</b>	ZB4 BZ101	ZB4 BP3	
		red ● N/C	<b>XB4 BA42</b>	ZB4 BZ102	ZB4 BA4	<b>XB4 BP42</b>	ZB4 BZ102	ZB4 BP4	
		yellow ● N/O	<b>XB4 BA51</b>	ZB4 BZ101	ZB4 BA5	<b>XB4 BP51</b>	ZB4 BZ101	ZB4 BP5	
		blue ● N/O	<b>XB4 BA61</b>	ZB4 BZ101	ZB4 BA6	<b>XB4 BP61</b>	ZB4 BZ101	ZB4 BP6	
<b>Type of push</b>		Flush							
<b>With international marking</b>		<b>Products</b>		<b>Complete</b>	<b>For user assembly</b>				
<b>References</b>		green ⓘ N/O	<b>XB4 BA3311</b>	ZB4 BZ101	ZB4 BA331	–	–	–	
		red ⓘ N/C	<b>XB4 BA4322</b>	ZB4 BZ102	ZB4 BA432	–	–	–	
		white ⓘ N/O	<b>XB4 BA3341</b>	ZB4 BZ101	ZB4 BA334	–	–	–	
		black ⓘ N/O	<b>XB4 BA3351</b>	ZB4 BZ101	ZB4 BA335	–	–	–	
<b>Type of push</b>		Projecting			Mushroom head, Ø 40 mm				
<b>Unmarked</b>		<b>Products</b>		<b>Complete</b>	<b>For user assembly</b>		<b>Complete</b>	<b>For user assembly</b>	
<b>References</b>		black ● N/O	–	–	–	<b>XB4 BC21</b>	ZB4 BZ101	ZB4 BC2	
		red ● N/C	<b>XB4 BL42</b>	ZB4 BZ102	ZB4 BL4	–	–	–	
<b>Type of push</b>		Double-headed pushbuttons							
<b>Degree of protection</b>		IP 40			IP 66				
<b>With international marking</b>		<b>Products</b>		<b>Complete</b>	<b>For user assembly</b>		<b>Complete</b>	<b>For user assembly</b>	
<b>References</b>		green / red ⓘ N/C + N/O	<b>XB4 BL845</b>	ZB4 BZ105	ZB4 BL8434	<b>XB4 BL945</b>	ZB4 BZ105	ZB4 BL9434	

(1) Alternative connections: plug-in connector, Faston connectors (6.35 and 2 x 2.8).



### Ø 40 mm mushroom head Emergency stop pushbuttons (2)

<b>Type of push</b>		Latching			Trigger action (EN 418)				
<b>Unmarked</b>		<b>Products</b>		<b>Complete</b>	<b>For user assembly</b>		<b>Complete</b>	<b>For user assembly</b>	
<b>References</b>		red ● N/C or N/C + N/O	<b>XB4 BT42</b>	ZB4 BZ102	ZB4 BT4	<b>XB4 BT845</b>	ZB4 BZ105	ZB4 BT84	
<b>Type of push</b>		Turn to release (N/C)			Turn to release (N/C + N/O)				
<b>References</b>		red ● N/C or N/C + N/O	<b>XB4 BS542</b>	ZB4 BZ102	ZB4 BS54	<b>XB4 BS8445</b>	ZB4 BZ105	ZB4 BS844	
<b>Type of push</b>		Key release (N/C)			Key release (N/C + N/O)				
<b>References</b>		red ● N/C or N/C + N/O	<b>XB4 BS142</b>	ZB4 BZ102	ZB4 BS14	<b>XB4 BS9445</b>	ZB4 BZ105	ZB4 BS944	

(2) The mushroom head Emergency stop pushbuttons conform to standard IEC/EN 60947-5-5 and Machinery Directive 98/37/EC. Trigger action mushroom head Emergency stop push buttons conform to standard EN 418



### Pushbuttons, spring return

Type of head		Circular bezel					
Degree of protection		IP 66 / Nema 4X, 13 / Class II					
Mounting (mm)	panel cut-out	Ø 22.5 (22.4 <sup>+0.4</sup> recommended)					
Depth (mm)	mounting centres	30 (horizontal) x 40 (vertical)					
Connection (1)	below head	43					
		Screw clamp terminals					
Type of push		Flush			Flush, booted		
Unmarked	Products	Complete	For user assembly		Complete	For user assembly	
References	black ● N/O	<b>XB5 AA21</b>	ZB5 AZ101	ZB5 AA2	<b>XB5 AP21</b>	ZB5 AZ101	ZB5 AP2
	green ● N/O	<b>XB5 AA31</b>	ZB5 AZ101	ZB5 AA3	<b>XB5 AP31</b>	ZB5 AZ101	ZB5 AP3
	red ● N/C	<b>XB5 AA42</b>	ZB5 AZ102	ZB5 AA4	<b>XB5 AP42</b>	ZB5 AZ102	ZB5 AP4
	yellow ● N/O	<b>XB5 AA51</b>	ZB5 AZ101	ZB5 AA5	<b>XB5 AP51</b>	ZB5 AZ101	ZB5 AP5
	blue ● N/O	<b>XB5 AA61</b>	ZB5 AZ101	ZB5 AA6	<b>XB5 AP61</b>	ZB5 AZ101	ZB5 AP6
Type of push		Flush			Mushroom head, Ø 40 mm		
With international marking	Products	Complete	For user assembly		Complete	For user assembly	
References	green 1 N/O	<b>XB5 AA3311</b>	ZB5 AZ101	ZB5 AA3311	–	–	–
	red 0 N/C	<b>XB5 AA4322</b>	ZB5 AZ102	ZB5 AA4322	–	–	–
	white + N/O	<b>XB5 AA3341</b>	ZB5 AZ101	ZB5 AA334	–	–	–
	black 0 N/O	<b>XB5 AA3351</b>	ZB5 AZ101	ZB5 AA335	–	–	–
Type of push		Projecting			Mushroom head, Ø 40 mm		
Unmarked	Products	Complete	For user assembly		Complete	For user assembly	
References	black ● N/O	–	–	–	<b>XB5 AC21</b>	ZB5 AZ101	ZB5 AC2
	red ● N/C	<b>XB5 AL42</b>	ZB5 AZ102	ZB5 AL4	–	–	–
Type of push		Double-headed pushbuttons			Double-headed pushbuttons, booted		
Degree of protection		IP 40					
With international marking	Products	Complete	For user assembly		Complete	For user assembly	
References	green / red 1 N/C + N/O	<b>XB5 AL845</b>	ZB5 AZ105	ZB5 AL8434	<b>XB5 AL945</b>	ZB5 AZ105	ZB5 AL9434

(1) Alternative connections: plug-in connector, Faston connectors (6.35 and 2 x 2.8).



### Ø 40 mm mushroom head Emergency stop pushbuttons (2)

Type of push		Latching			Trigger action (EN 418)		
		Push-pull (N/C)			Push-pull (N/C + N/O)		
Unmarked	Products	Complete	For user assembly		Complete	For user assembly	
References	red ● N/C or N/C + N/O	<b>XB5 AT42</b>	ZB5 AZ102	ZB5 AT4	<b>XB5 AT845</b>	ZB5 AZ105	ZB5 AT84
Type of push		Turn to release (N/C)			Turn to release (N/C + N/O)		
References	red ● N/C or N/C + N/O	<b>XB5 AS542</b>	ZB5 AZ102	ZB5 AS54	<b>XB5 AS8445</b>	ZB5 AZ105	ZB5 AS844
Type of push		Key release (N/C)			Key release (N/C + N/O)		
References	red ● N/C or N/C + N/O	<b>XB5 AS142</b>	ZB5 AZ102	ZB5 AS14	<b>XB5 AS9445</b>	ZB5 AZ105	ZB5 AS944

(2) The mushroom head Emergency stop pushbuttons conform to standard IEC/EN 60947-5-5 and Machinery Directive 98/37/EC. Trigger action mushroom head Emergency stop pushbuttons conform to standard EN 418.

## Switches & Key Switches



Selector switches and key switches	
Type of head	Circular bezel
Degree of protection	IP 66 / Nema 4X, 13 / Class II
Mounting (mm)	panel cut-out mounting centres
Depth (mm)	below head 43
Connection (1)	Screw clamp terminals
Type of operator	Handle
	Products
	Complete
	For user assembly
	Complete
	For user assembly
Number and type of positions	2 positions stay put
References	black ● N/O
Number and type of positions	3 positions stay put
References	black ● N/O + N/O
Type of operator	Key, n° 455
Number and type of positions (2)	2 positions stay put
References	black ● N/O

(2) The symbol  $\Delta$  indicates key withdrawal position

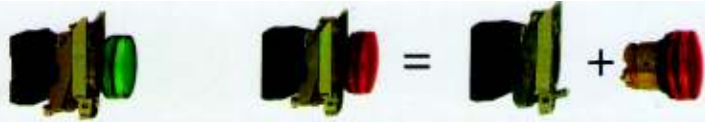


Selector switches and key switches	
Type of head	Chromium plated circular bezel
Degree of protection	IP 66 / Nema 4X, 13 / Class I
Mounting (mm)	panel cut-out mounting centres
Depth (mm)	below head 43
Connection (1)	Screw clamp terminals
Type of operator	Handle
	Products
	Complete
	For user assembly
	Complete
	For user assembly
Number and type of positions	2 positions stay put
References	black ● N/O
Number and type of positions	3 positions stay put
References	black ● NO + N/O



Type of operator	
	Key, n° 455
	Products
	Complete
	For user assembly
	Complete
	For user assembly
Number and type of positions (2)	2 positions stay put
References	black ● N/O
Number and type of positions	2 positions spring return to left
References	black ● N/O black ● N/O + N/O

## Pilot lights



Pilot lights							
Type of head		Circular bezel Smooth lens cap					
Degree of protection		IP 66 / Nema 4X, 13 / Class I					
Mounting (mm)	panel cut-out mounting centres	Ø 22.5 (22.4 <sup>+0.4</sup> <sub>0</sub> recommended)					
Depth	below head	43					
Connection (1)		Screw clamp terminals					
Light source		Integral LED			Direct supply for BA 9s bulb (not included)		
	Products	Complete			Complete	For user assembly	
Supply voltage		24 V AC/DC	48...120 V AC	230...240 V AC	250 V max., 2.4 W max.		
References	white 	XB4 BVB1	XB4 BVG1	XB4 BVM1	XB4 BV61	ZB4 BV6	ZB4 BV01
	green 	XB4 BVB3	XB4 BVG3	XB4 BVM3	XB4 BV63	ZB4 BV6	ZB4 BV03
	red 	XB4 BVB4	XB4 BVG4	XB4 BVM4	XB4 BV64	ZB4 BV6	ZB4 BV04
	yellow 	XB4 BVB5	XB4 BVG5	XB4 BVM5	XB4 BV65	ZB4 BV6	ZB4 BV05
	blue 	XB4 BVB6	XB4 BVG6	XB4 BVM6	-	-	-



Pilot lights							
Type of head		Circular bezel Smooth lens cap					
Degree of protection		IP 66 / Nema 4X, 13 / Class II					
Mounting (mm)	panel cut-out mounting centres	Ø 22.5 (22.4 <sup>+0.4</sup> <sub>0</sub> recommended)					
Depth	below head	43					
Connection (1)		Screw clamp terminals					
Light source		Integral LED			Direct supply for BA 9s bulb (not included)		
	Products	Complete			Complete	For user assembly	
Supply voltage		24 V AC/DC	48...120 V AC	230...240 V AC	250 V max., 2.4 W max.		
References	white 	XB5 AVB1	XB5 AVG1	XB5 AVM1	XB5 AV61	ZB5 AV6	ZB5 AV01
	green 	XB5 AVB3	XB5 AVG3	XB5 AVM3	XB5 AV63	ZB5 AV6	ZB5 AV03
	red 	XB5 AVB4	XB5 AVG4	XB5 AVM4	XB5 AV64	ZB5 AV6	ZB5 AV04
	yellow 	XB5 AVB5	XB5 AVG5	XB5 AVM5	XB5 AV65	ZB5 AV6	ZB5 AV05
	blue 	XB5 AVB6	XB5 AVG6	XB5 AVM6	-	-	-

## Illuminated pushbuttons and selector switches



Type		Flush push, spring return, illuminated pushbuttons					
Light source	Products	Integral LED			Direct supply for BA 8s bulb (not included)		
		Complete			Complete	For user assembly	
Supply voltage		24 V AC/DC	48...120 V AC	230...240 V AC	250 V max., 2.4 W max.		
References	white  N/C + N/O	<b>XB4 BW31B5</b>	<b>XB4 BW31G5</b>	<b>XB4 BW31M5</b>	<b>XB4 BW3165</b>	<b>ZB4 BW065</b>	<b>ZB4 BW31</b>
	green  N/C + N/O	<b>XB4 BW33B5</b>	<b>XB4 BW33G5</b>	<b>XB4 BW33M5</b>	<b>XB4 BW3365</b>	<b>ZB4 BW065</b>	<b>ZB4 BW33</b>
	red  N/C + N/O	<b>XB4 BW34B5</b>	<b>XB4 BW34G5</b>	<b>XB4 BW34M5</b>	<b>XB4 BW3465</b>	<b>ZB4 BW065</b>	<b>ZB4 BW34</b>
	yellow  N/C + N/O	<b>XB4 BW35B5</b>	<b>XB4 BW35G5</b>	<b>XB4 BW35M5</b>	<b>XB4 BW3565</b>	<b>ZB4 BW065</b>	<b>ZB4 BW35</b>
	blue  N/C + N/O	<b>XB4 BW36B5</b>	<b>XB4 BW36G5</b>	<b>XB4 BW36M5</b>	-	-	-



Type		Flush push, spring return, illuminated pushbuttons					
Light source	Products	Integral LED			Direct supply for BA 9s bulb (not included)		
		Complete			Complete	For user assembly	
Supply voltage		24 V AC/DC	48...120 V AC	230...240 V AC	250 V max., 2.4 W max.		
References	white  N/C + N/O	<b>XB5 AW31B5</b>	<b>XB5 AW31G5</b>	<b>XB5 AW31M5</b>	<b>XB5 AW3165</b>	<b>ZB5 AW065</b>	<b>ZB5 AW31</b>
	green  N/C + N/O	<b>XB5 AW33B5</b>	<b>XB5 AW33G5</b>	<b>XB5 AW33M5</b>	<b>XB5 AW3365</b>	<b>ZB5 AW065</b>	<b>ZB5 AW33</b>
	red  N/C + N/O	<b>XB5 AW34B5</b>	<b>XB5 AW34G5</b>	<b>XB5 AW34M5</b>	<b>XB5 AW3465</b>	<b>ZB5 AW065</b>	<b>ZB5 AW34</b>
	yellow  N/C + N/O	<b>XB5 AW35B5</b>	<b>XB5 AW35G5</b>	<b>XB5 AW35M5</b>	<b>XB5 AW3565</b>	<b>ZB5 AW065</b>	<b>ZB5 AW35</b>
	blue  N/C + N/O	<b>XB5 AW36B5</b>	<b>XB5 AW36G5</b>	<b>XB5 AW36M5</b>	-	-	-



Type		Double-headed pushbuttons with LED pilot light (1 flush green push, 1 projecting red push)			Illuminated selector switches (2 position stay put)		
Degree of protection		IP 40			IP 65		
Light source	Products	Integral LED			Integral LED		
		Complete			Complete		
Supply voltage		24 V AC/DC	48...120 V AC	230...240 V AC	24 V AC/DC	48...120 V AC	230...240 V AC
References	green  N/C + N/O	-	-	-	<b>XB4 BK123B5</b>	<b>XB4 BK123G5</b>	<b>XB4 BK123M5</b>
	red  N/C + N/O	-	-	-	<b>XB4 BK124B5</b>	<b>XB4 BK124G5</b>	<b>XB4 BK124M5</b>
	yellow  N/C + N/O	<b>XB4 BW84B5</b>	<b>XB4 BW84G5</b>	<b>XB4 BW84M5</b>	<b>XB4 BK125B5</b>	<b>XB4 BK125G5</b>	<b>XB4 BK125M5</b>


(1) Alternative connections: plug-in connector, Faston connectors (6.35 and 2 x 2.8).



Type		Double-headed pushbuttons with LED pilot light (1 flush green push, 1 projecting red push)			Illuminated selector switches (2 position stay put)		
Degree of protection		IP 40			IP 65		
Light source	Products	Integral LED			Integral LED		
		Complete			Complete		
Supply voltage		24 V AC/DC	48...120 V AC	230...240 V AC	24 V AC/DC	48...120 V AC	230...240 V AC
References	green  N/C + N/O	-	-	-	<b>XB5 AK123B5</b>	<b>XB5 AK123G5</b>	<b>XB5 AK123M5</b>
	red  N/C + N/O	-	-	-	<b>XB5 AK124B5</b>	<b>XB5 AK124G5</b>	<b>XB5 AK124M5</b>
	yellow  N/C + N/O	<b>XB5 AW84B5</b>	<b>XB5 AW84G5</b>	<b>XB5 AW84M5</b>	<b>XB5 AK125B5</b>	<b>XB5 AK125G5</b>	<b>XB5 AK125M5</b>

(1) Alternative connections: plug-in connector, Faston connectors (6.35 and 2 x 2.8).  
Separate components and accessories: see previous page.

## Separate Components and accessories



Electrical blocks		
Single contact blocks		
Rated operational characteristics	AC-15, 240 V - 3 A	
Positive operation of contacts conforming to IEC/EN 60947-5-1	All functions incorporating a N/C contact are positive opening operation	
References (5)*	NO	<b>ZBE 101</b>
	N/C	<b>ZBE 102</b>

(1) Alternative connections: plug-in connector, Faston connectors (6.35 and 2 x 2.8).

(2) The symbol  $\Delta$  indicates key withdrawal position

\*sold in lots of





Electrical blocks						
	Single contact blocks		Light blocks with integral LED			Light block, direct supply
Rated operational characteristics	AC-15, 240 V - 3 A		Consumption			
			18 mA	24 V AC/DC		
Positive operation of contacts conforming to IEC/EN 60947-5-1	N/C contacts with positive opening operation		14 mA	120 V AC		
			14 mA	240 V AC		
References (5)*	N/O	<b>ZBE 101</b>	To combine with heads for integral LED			For BA 9s bulb (not included)
	N/C	<b>ZBE 102</b>	24 V AC/DC	48...120 V AC	230...240 V AC	250 V max., 2.4 W max.
			white	ZBV B1	ZBV G1	ZBV M1
			green	ZBV B3	ZBV G3	ZBV M3
			red	ZBV B4	ZBV G4	ZBV M4
			yellow	ZBV B5	ZBV G5	ZBV M5
			blue	ZBV B6	ZBV G6	ZBV M6
						Colour provided by lens

### Accessories

Legend holders, 30 x 40 mm, for 6 x 27 mm legends

References (10)*	Marking	Background colour: black or red						white or yellow		
	Blank	<b>ZBY 2101</b>						<b>ZBY 4101</b>		
References	International	0 (red background)	ZBY 2931	I	ZBY 2147	AL/TO	ZBY 2115	STOP	ZBY 2304	-
	English	OFF	ZBY 2312	ON	ZBY 2311	START	ZBY 2303	-	-	-
	French	ARRÊT (red b/grnd)	ZBY 2104	ARRÊT-MARCHE	ZBY 2166	MARCHE	ZBY 2103	-	-	-
	German	AUS	ZBY 2204	AUS-EIN	ZBY 2266	EIN	ZBY 2203	-	-	-
	Spanish	PARADA (red b/grnd)	ZBY 2404	PARADA-MARCHA	ZBY 2466	MARCHA	ZBY 2403	-	-	-

Legend holders, 30 x 50 mm, for 18 x 27 mm legends

References (10)*	Marking	Background colour	white or yellow
	Blank	black or red	<b>ZBY 6101</b>
			<b>ZBY 6102</b>

Ø 50 mm legend for mushroom head Emergency stop pushbutton

References	Marking	EMERGENCY STOP		ARRET D'URGENCE	NOT-AUS	PARADA DE EMERGENCIA
	Blank	EMERGENCY STOP		ARRET D'URGENCE	NOT-AUS	PARADA DE EMERGENCIA
		ZBY 9330		ZBY 9130	ZBY 9230	ZBY 9430
		ZBY 9101				
		Body/fixing collar		Fixing nut	Bezel tool	Plate
		for electrical block (contact or light)		for head	for tightening fixing nut	anti-rotation
		ZB5 AZ009 (10)*		ZB5 AZ901 (10)*	ZB5 AZ905	ZB5 AZ902

(1) Alternative connections: plug-in connector, Faston connectors (6.35 and 2 x 2.8).

\*sold in lots of



Diecast metal enclosures (Zinc alloy, usable depth 49 mm)		1 vertical row				2 vertical rows		
Number of cut-outs	Front face dimensions	1	2	3	4	2	4	6
References	80 x 80 mm	XAP M1201	-	-	-	XAP M1202	-	-
	80 x 130 mm	-	XAP M2202	XAP M2203	-	-	XAP M2204	-
	80 x 175 mm	-	-	XAP M3203	XAP M3204	-	-	XAP M3206



Accessories										
Legend holders, 30 x 40 mm, for 8 x 27 mm legends										
References (10)*	Marking	Background colour: black or red				white or yellow				
	Blank	ZBY 2101				ZBY 4101				
	International	0 (red background)	ZBY 2931	I	ZBY 2147	AUTO	ZBY 2115	STOP	ZBY 2304	-
	English	OFF	ZBY 2312	ON	ZBY 2311	START	ZBY 2303	-	-	
	French	ARRET (red b/grnd)	ZBY 2104	ARRET-MARCHE	ZBY 2166	MARCHE	ZBY 2103	-	-	
	German	AUS	ZBY 2204	AUS-EIN	ZBY 2266	EIN	ZBY 2203	-	-	
Spanish	PARADA (red b/grnd)	ZBY 2404	PARADA-MARCHA	ZBY 2466	MARCHA	ZBY 2403	-	-		
Legend holders, 30 x 50 mm, for 18 x 27 mm legends										
Background colour		black or red				white or yellow				
References (10)*	Blank	ZBY 6101				ZBY 6102				
Ø 60 mm legend for mushroom head Emergency stop pushbutton										
Background colour		yellow								
Marking	Blank	EMERGENCY STOP	ARRET D'URGENCE	NOT-AUS	PARADA DE EMERGENCIA					
References	ZBY 9101	ZBY 9330	ZBY 9130	ZBY 9230	ZBY 9430					

Alternative connections: plug-in connector, Faston connectors (6.35 and 2 x 2.8).  
[sold in lots of](#)

(1)



## Beacons and indicator banks

Application - For signalling up to 100 m


**Application specific range**  
Ready to use for specific requirements



**Ø 70 mm**

Complete, pre-cabled beacons and indicator banks XVD (1)	1 signalling unit Flash light		2 signalling units Steady light		Steady light + "flash"	"Flash" light + buzzer
	Light source	"Flash" discharge tube 5 J		BA 15d LED (included)		BA 15d LED (included) + "Flash" discharge tube, 5 J
Degree of protection	IP 40					
Signalling colours	Orange	Red	Green - Red	Orange - Red	Green - Red	Orange
Beacon/indicator bank references	24 V AC/DC XVDBA6 XVDBR6		XVDB2GR XVDB2AR		XVDB2GR6	XVDBSA6
	230 V AC XVDM A6 XVDMR6		-		-	-

(1) Indicator banks XVD are also available as separate components for customised assembly by the user



**Ø 70 mm**

Complete, pre-cabled beacons and indicator banks XVD (1)	3 signalling units Steady light		Steady light + "flash"	Steady light + buzzer
	Light source	Incandescent BA 15d BA 15d bulb, 10W LED max. (included)	BA 15d LED (included)	BA 15d LED (included) + "Flash" discharge tube, 5 J
Degree of protection	IP 40			
Signalling colours	Green - Orange - Red		Green - Orange - Red	Green - Red (2)
Indicator bank references	24 V AC/DC XVDB1GAR XVDB2GAR		XVDB2GAR6	XVDB2SGR
	230 V AC XVDM1GAR XVDM2GAR		-	XVDM2SGR

Complete, pre-cabled beacons and indicator banks XVD (2)	4 signalling units Steady light		Steady light + buzzer	
	Light source	BA 15d LED (included)		Incandescent BA 15d bulb, 10 W max (included)
Degree of protection	IP 40			
Signalling colours	Clear - Green - Orange - Red		Green - Orange - Red	
Indicator bank references	24 V AC/DC XVDB2CG AR		XVDB1SG AR	XVDB2SG AR
	230 V AC -		-	XVDM2SG AR

(1) Beacons and indicator banks XVD are also available as separate components for customised assembly by the user

(2) Also available in 24 V AC/DC with signalling colours Orange -Red: **XVDB2SAR**.



Rotating mirror beacon XVR and Sirens XVS	Rotating mirror beacon		Sirens, 106 db	
	Description	Halogen bulb 70 W H1 (included)	Incandescent bulb 25 W BA 15d (included)	1 tone
Diameter	Ø 165 mm		Ø 92 mm	
Degree of protection	IP 65			
References (3)	24 V AC/DC XVR1B9●		XVR1B0●	XVSB1
	120 V AC -		XVR1G0●	XVSG1
	230 V AC -		XVR1M0●	XVSM1
				XVSB2
				XVSG2
				XVSM2

(3) To obtain the complete reference, replace the ● by the number designating the colour as follows: 3 = green, 4 = red, 5 = orange, 6 = blue, 8 = yellow.

## Pendant control stations for control circuits



Type XAC A "Pistol grip"					
Degree of protection		IP 65 / Nema 4, 4X / Class II			
Rated operational characteristics		AC 15 (240 V 3 A), DC 13			
Conventional thermal current		10 A			
Connection		Screw clamp terminals, 1 x 2.5 mm <sup>2</sup> or 2 x 1.5 mm <sup>2</sup>			
For control of		single-speed motors 		2-speed motors 	
Dimensions (mm)		W x H x D		52 x 295 x 71 (x 85 with ZA2 BS44)	
Number of operators		mechanically interlocked		2	
		Emergency stop		without      ZA2 BS44	
References		XAC A201		XAC A203	
				without      ZA2 BS44	
				XAC A207      XAC A2073	



Type XAC A					
For control of single-speed motors					
Dimensions (mm)		W x H x D		80 x 314 x 70 (x 90 with ZA2 BS44)	
Number of operators		mechanically interlocked between pairs		2	
		Emergency stop		without      ZA2 BS44	
References		XAC A271		XAC A2713	
				without      ZA2 BS54	
				XAC A471      XAC A4713	



For control of single-speed motors					
Dimensions (mm)		W x H x D		80 x 500 x 70 (x 90 with ZA2 BS54)	
Number of operators		mechanically interlocked between pairs		6	
		Emergency stop		without      ZA2 BS54	
References		XAC A671		XAC A6713	
				without      XAC A871	

# Earth Leakage Relay



## Selection Guide

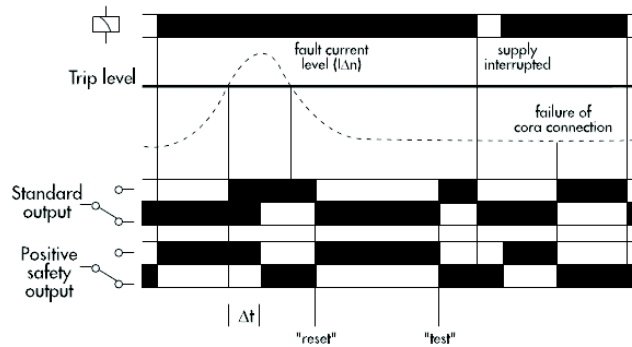
Earth Leakage Relay

Product Code	Sensitivity	Time Delay	Aux Supply
R-ELRM-10V	Adjustable up to 10A	Adjustable up to 0.5 sec	220/240VAC
R-ELRM-30V-M	Adjustable up to 30A	Adjustable up to 0.5sec	220/240VAC

## Toroid

Product Code	Internal Dimension
R-ZCT035	35mm sq.
R-ZCT070	70mm sq.
R-ZCT120	120mm sq.
R-ZCT210	210mm sq.

## Function Diagram



## BASIC FEATURES

Rudolf earth leakage relay, a complete micro-processor base solution is equipped with internal monitoring feature providing self checking function to each relay from its micro-processor controller. This improved version is equipped with a self test (duration of approximately 1 sec) operational during power on situation and memory storage of the leakage fault to be reset with the test/reset button. The test mode allows fault simulation to detect leakage current, toroid open circuit, supply voltage fault.

Rudolf earth leakage relay is equipped with a built in digital LED display to provide precise information of leakage current and status of setting.

Rudolf earth leakage relay allowed programming via local pushbutton locate on the face of the relay and its setting are :

R-ELRM-30V-\*

- Sensitivity : 6, 10, 30, 50, 75, 100, 300, 500, 750 mA  
1, 3, 5, 7.5, 10, 15, 20, 25, 30 A (user - selectable)
- Time delay : instantaneous, 50, 250, 500msec, 1, 2.5, 5, 10 sec (user - selectable)

R-ELRM-10V

- Sensitivity : 30, 50, 75, 100, 300, 500, 750 mA  
1, 3, 5, 7.5, 10 A (user - selectable)
- Time delay : instantaneous, 50, 100, 250, 500msec (user - selectable)

Rudolf earth leakage relay come with a built in user programmable contact to provide pre-alarm indication via local bar indicator and remote contact. The programmable setting can be 10%, 15%, 20%, 25%, 30%, 35%, 40%, 45%, 50%, 55% & 60% of its pre-set sensitivity;

Rudolf earth leakage relay is equipped with 2 x 8A SPDT relay to provide contact operation for standard output and position safety output. Similarly contact point are available for remote operation to simulate "test" and "reset" position.

## Specifications

Supply voltage Un:	115VAC (Product code R-ELRM-30V-F) 230VAC (Product code R-ELRM-30V-M / R-ELRM-10V) (85-115% of Un) There is a galvanic isolation between the supply and the toroid and remote test / reset connections
Frequency range:	50/60Hz (AC supplies)
Isolation:	over-voltage category III
Rated impulse withstand voltage:	2.5kV (115V supply) 4kV (230V supply) for 1.2/50micro sec IEC60664
Power consumption (max):	6VA
Monitored leakage current:	For R-ELRM-30V-* = 2mA-30A (15-400Hz) For R-ELRM-10V = 2mA-10A (15-400Hz)
Sensitivity:	<b>For R-ELRM-30V-*</b> 6, 10, 30, 50, 75, 100, 300, 500, 750 mA 1, 3, 5, 7.5, 10, 15, 20, 25, 30A (user - selectable) <b>For R-ELRM- 10V</b> 30, 50, 75, 100, 300, 500, 750 mA 1, 3, 5, 7.5, 10A (user - selectable)
Time delay:	<b>For R-ELRM-30V-*</b> instantaneous, 50, 250, 500msec, 1, 2.5, 5, 10 sec (user - selectable) <b>For R-ELRM- 10V</b> instantaneous, 50, 100, 250, 500msec (user - selectable) Note: for sensitivity setting of 30mA, the time delay is fixed to instantaneous, <25msec and is not adjustable
Trip level limits:	70-80% of sensitivity (30V), 75% (10V)
Measured current:	Displayed on auto ranging 2 digit 7 segment red LED display
Resolution:	100 microA min
Display accuracy:	+/-15% of actual measured leakage current
Reset time:	< 120msec (from supply interruption)
Self test duration:	<5sec (operates on power on only)
Memory:	storage of the leakage fault and reset with "test/reset" button
Toroid connection(II, 13):	to external R-ZCT toroid only (1000: 1)
Toroid withstand capacity:	50kA for 200mS
Distance between toroid & relay:	50 metres (max)
Ambient temperature:	-5 to +60 deg C / -5 to +40 deg C ( in accordance to IEC755)
Relative humidity:	+95%
Output(4, 6, 8 / 10, 12, 14):	2 x SPDT relay
Output rating:	AC 1 250V 8A (2000VA) AC 15 250V 2.5A DC 1 25V 8A (200W)
Electrical life:	≥ 150,000 operations at rated load

Dielectric voltage:  
Rated impulse withstand voltage:  
Remote "test" / " reset" (5,7,9):  
Minimum trigger time:  
Fault level output(I ,2):

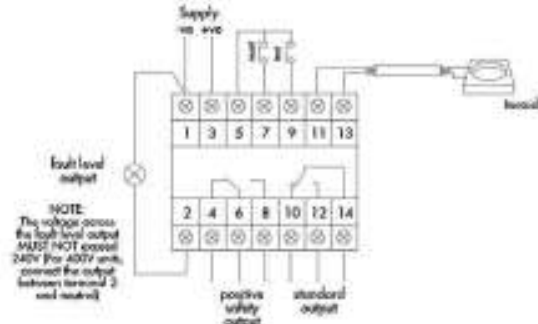
2kV AC (rms) IEC6094 7-1  
4kV (1.2/50 microsec) IEC60664  
requires two NO contact (ie pushbutton)  
>50msec  
50% at sensitivity setting (factory set)  
User adjustable from 10-65% in 5% increments  
40mA max @ 240VAC  
Grey flame retardant Lexan UL94VO  
approximately 250g  
on to 35mm symmetric DIN rail to BS5584: 1978  
(EN50002, DIN46277-3)  
≤ 2.5mm sq. stranded  
≤ 4mm sq. solid  
Conforms to IEC7 55, 50081-1, 50081-2  
50082-1, 50082-2, CE.

Load:  
Housing  
Weight:  
Mounting option:

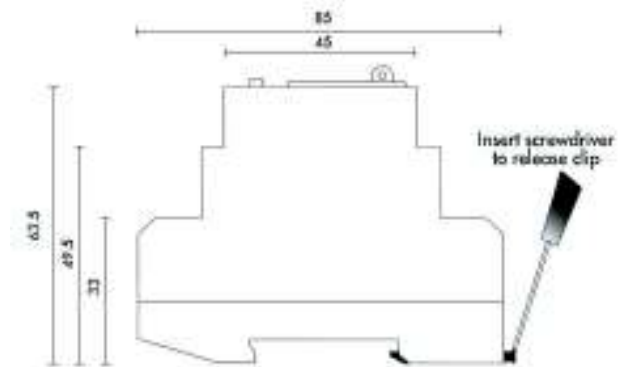
Terminal conductor size:

Approval:

## Connection Diagram



## Mounting Diagram



## Connection Accessories

### Test Terminal & PUB Indicator Light ( KM-VTTB, KM-APPL)

#### Features

- Glossy black-colored finishing moulded bakelite
- Terminal arrangements cover a wide range of applications Current rating: 50 amps
- Front & back connected types
- All terminals and screws are plated brass
- Moulded insulation barriers between sets of terminals
- Link facilitates for testing purposes

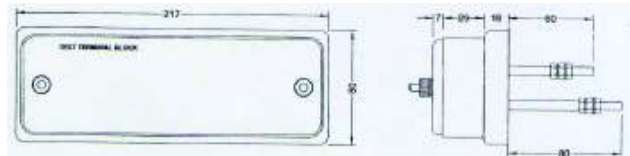


#### Case/Cover

Designed for protection mounting on switchboards or panels, terminals blocks can be supplied with front or back connection terminals.

The cover is secured by two knurled nuts which can be sealed to prevent unauthorized access.

Two detachable strips are fitted into the upper and lower edges of the terminal cover. These strips can be reversed to allow the cover to be in place during tests

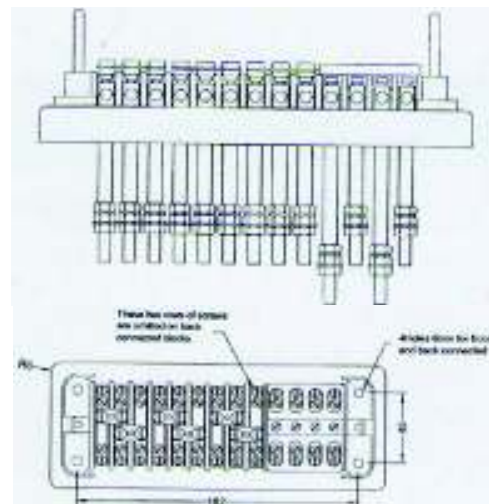


#### Terminal Arrangement

The test terminal block is provided with 13 terminals each with 6mm (1/4") diameter holes. It consists of 3 groups of current terminals and 4 voltage terminals.

Each group of current terminals shall consist of 3 terminals with inter-terminal sorting links for the short-circuiting of the current transformers secondaries that are connected to the terminals.

This is necessary for the purpose of insertion of check meters and for portable current injection test set. Connections are possible from both ends of the terminals. Blanking strips are provided to prevent unauthorized entry to the terminals when the cover is sealed.



#### Electrical Characteristics

Voltage insulation level: 660 volts

#### Mounting

It is suitable for protection/surface mounting

#### Phase Barriers

Each terminal shall be separated by phase barriers, moulded integrally with the base of the terminal block. The voltage terminal is shrouded in moulded bakelite.



## Comb Busbar

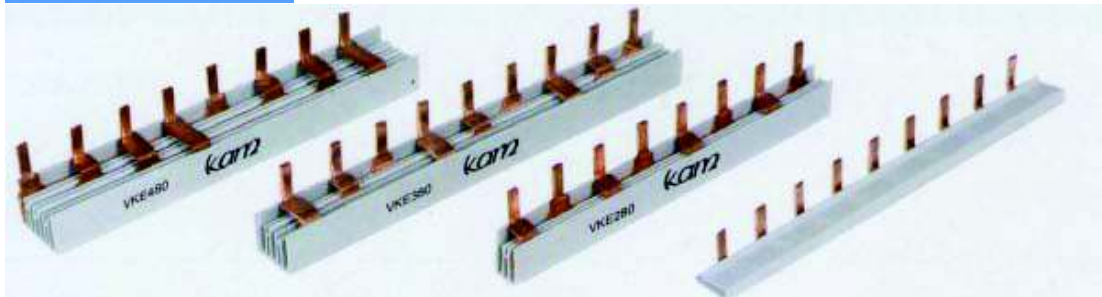
### KM-VKE, KM-VKD

The multi-comb busbars are used as the main busbars for 3 Poles or 1 Pole MCB to IEC 898 dimension fitted in Load Centre or Distribution Board. The busbars are insulated throughout its entire length. Its advantages are that it is compact in size therefore save space, replaces hard wiring therefore save cost and increase volume. 100A 3Phase with 40A outgoing. Available in 6, 9, 12, 15, 18, 21, 24, 27 & 30 ways with incoming terminals. 69 ways is available but without incoming terminals

#### Advantages

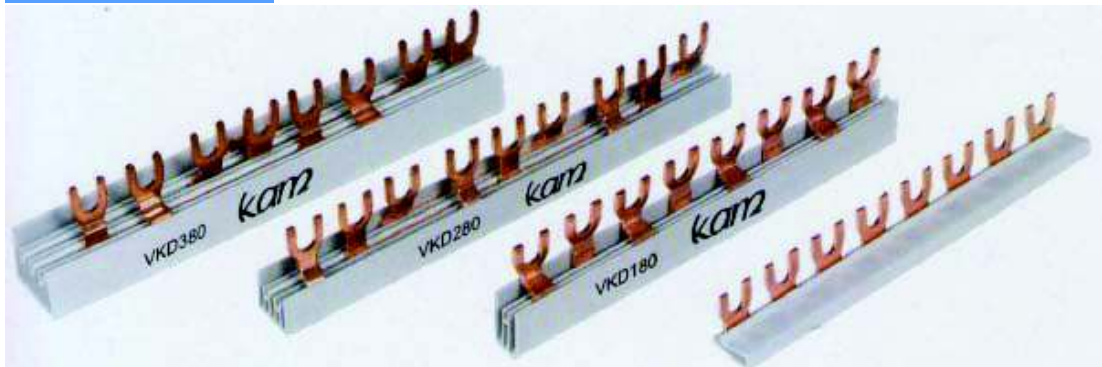
- High conductivity copper busbar used.
- Convenient & quick for assembly, save time & labour cost
- Terminals to receive incoming cables are available
- Withstand insulation voltage up to 3.5kV for 1 min
- Compact and rigid in size, occupies very small space

#### Insulated Busbars – prong



Description	Section in		Width module	Pack Qty	Order Code
Pole , 1 Step Insulated	20	100A	56	10	KM-VKE190
Pole , 2 Step Insulated	16	80A	56	10	KM-VKE280
Pole , 3 Step Insulated	16	80A	54	10	KM-VKE380
Pole , 4 Step Insulated	16	80A	56	10	KM-VKE480

#### Insulated Busbars – fork



Description	Section in		Width module	Pack Qty	Order Code
Pole , 1 Step Insulated	20	100A	56	10	KM-VKD190
Pole , 2 Step Insulated	16	80A	56	10	KM-VKD280
Pole , 3 Step Insulated	16	80A	54	10	KM-VKD380
Pole , 4 Step Insulated	16	80A	56	10	KM-VKD480

#### Specification

Busbar material:	Copper
Rated operational voltage	240/415V
Rated operational current	100A

**Comb busbar** is available for specialist applications and can be supplied in both pin and fork type formats.

**Comb busbar** supplied in 1 metre lengths.

**Comb Busbar End Covers** for DP, TP & FP busbar configurations, supplied in packs of 10.

## Connection Blocks

### KM-VC



KM-VC1001



KM-VC1002

### Application

Connection blocks 1 to 35 to connect incoming cables and continue live feed.

### Specification

Connection	Incoming: 2 x 25mm or 2 x 35mm Outgoing 16mm or 25mm
Mounting	Fixing on DIN Rail
Connection locks include	One insulated support, brass connection and cover
Standard	IEC 998-2-1
Rated current	100A
Rated voltage	500V
Max. cable size	35mm

Designation	Characteristics	Width in 17.5mm	Pack Qty	Order code
Connection Blocks Connection on each pole incoming: 2 x 35mm 3 separate outgoing ways: 16mm	1 Pole	1 3/4	20	KM-VC1001
	2 Pole	3	10	KM-VC1002

## Branching Connectors

### KM-VTD

The branching connection clamps are mounted over an insulated base and protected by a sealed, transparent, caps, both are made of self-extinguishable polycarbonate. They can be linked and remain fixed by M5 bolts, in addition to having the advantage of being able to complete the connections among the principal conductors and the branching of independent form. This wide range of clamps allows the connection of 1 or 2 principal conductors to 2 or 4 branch conductors, offering great flexibility and comfort at the time of finishing installations with electric connections of this type.

#### Technical characteristics:

- Recovered in tin with a minimum thickness of 6 microns at all point
- The bimetallic connection clamps are entirely fabricated in copper alloy.
- The insulated part of the branching clamps is fabricated in auto extinguishable polycarbonate



## Industrial Plugs and Sockets

- In compliance with IEC 60309-2 standards
- SOC included flush-mounting socket-outlet low voltage from 50V up to 690V
- SOC types (IP44) spring lid & (IP67) spring lid with locking ring and gasket.

### Plugs

Poles	Hr Pos.	Voltage	Ampere
2P+E	4	100/130V	16
2P+E	6	200/250V	16
3P+E	6	380/415V	16
3P+N+E	6	380/415V	16
2P+E	4	100/130V	32
2P+E	6	200/250V	32
3P+E	6	380/415V	32
3P+N+E	6	380/415V	32



### Connectors

Poles	Hr Pos.	Voltage	Ampere
2P+E	4	100/130V	16
2P+E	6	200/250V	16
3P+E	6	380/415V	16
3P+N+E	6	380/415V	16
2P+E	4	100/130V	32
2P+E	6	200/250V	32
3P+E	6	380/415V	32
3P+N+E	6	380/415V	32



### Wall Sockets

Poles	Hr Pos.	Voltage	Ampere
2P+E	4	100/130V	16
2P+E	6	200/250V	16
3P+E	6	380/415V	16
3P+N+E	6	380/415V	16
2P+E	4	100/130V	32
2P+E	6	200/250V	32
3P+E	6	380/415V	32
3P+N+E	6	380/415V	32



### Panel Sockets

Poles	Hr Pos.	Voltage	Ampere
2P+E	4	100/130V	16
2P+E	6	200/250V	16
3P+E	6	380/415V	16
3P+N+E	6	380/415V	16
2P+E	4	100/130V	32
2P+E	6	200/250V	32
3P+E	6	380/415V	32
3P+N+E	6	380/415V	32

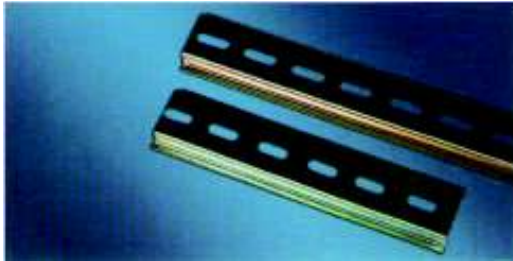


## Busbar Support

Values	KM-RM35	KM-RM51
Tensile Strength (1 bs)	600	1000
Torque strength (ft 1 bs)	10	20
Voltage withstand (kV)	10	15
Screw (mm)	8	8
Weight (kg)	50	83



## Din rail (cold rolled steel)



### Din rail (cold rolled steel)

- Zinc coated and yellow passivated
- Coating thickness 8 micron min.
- Item number: KM-DR2000

## Perspect

### Perspect

- KM-PKWH01 117mm x 157mm
- KM-PKWH02 147mm x 187mm
- KM-PKWH03 234mm x 234mm



## Neutral Break



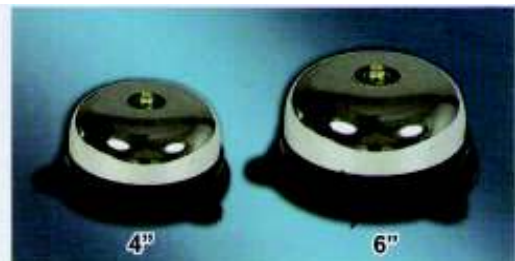
### Neutral Break

- Rated amp: 100A, 250A
- Item number: KM-VNB100, KM-VNB250

## Alarm Bell

### Alarm Bell

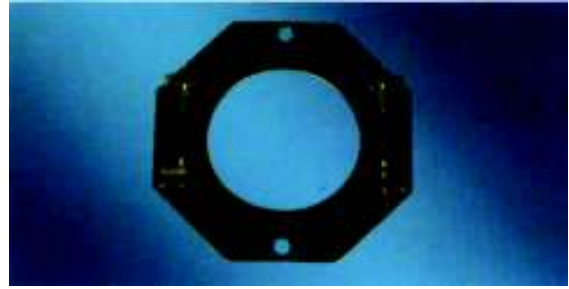
- Size: 4" , 6"
- Voltage: AC 230V
- Item number: KM-AL4-230V  
KM-AL6-230V



## Level Controller Accessories

### Hexagonal Spring Clamp

- For electrode holder
- Item number: KM-HSC



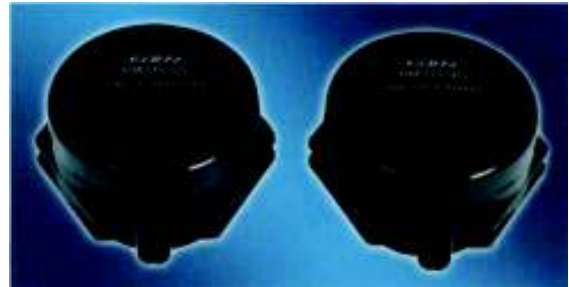
### Separator



- For preventing long electrodes from contacting with each other
- Item number: KM-PS 1, KM-PS3, KM-PS5
- Separator: 1 way, 3 way, 5 way
- Material: Porcelain

### Electrode Holder

- For general applications such as water supply line
- Item number: KM-OS-3S, KM-OS-5S



### Electrode



- As a sensor in water supply lines
- Length: 1 m, 2m, 3m
- Item number: KM-SSR01, KM-SSR02, KM-SSR03
- Material: Stainless Steel

## Terminal Blocks

### Terminal Blocks (with Finger Protection Cover)

Type: IN13BK-C	
Rated voltage:	600V
Rated current:	20A
Dielectric Strength:	2500V, 1min
Insulation Resistance:	100M $\Omega$ min
Applicable Wire:	2mm <sup>2</sup> max
Circuits Poles:	3 poles

Type: IN20BK-C	
Rated voltage:	600V
Rated current:	30A
Dielectric Strength:	2500V, 1min
Insulation Resistance:	100M $\Omega$ min
Applicable Wire:	3.5mm <sup>2</sup> max
Circuits Poles:	3 poles

Type: IN30BK-C	
Rated voltage:	600V
Rated current:	50A
Dielectric Strength:	2500V, 1min
Insulation Resistance:	100M $\Omega$ min
Applicable Wire:	8mm <sup>2</sup> max
Circuits Poles:	3 poles

Type: IN411SB-C	
Rated voltage:	600V
Rated current:	50A
Dielectric Strength:	2500V, 1min
Insulation Resistance:	100M $\Omega$ min
Applicable Wire:	14mm <sup>2</sup> max
Circuits Poles:	1 pole

Type: IN60BK-C	
Rated voltage:	600V
Rated current:	90A
Dielectric Strength:	2500V, 1min
Insulation Resistance:	100M $\Omega$ min
Applicable Wire:	22mm <sup>2</sup> max
Circuits Poles:	1 pole







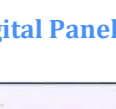


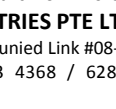

Type: IN100K-C	
Rated voltage:	600V
Rated current:	130A
Dielectric Strength:	2500V, 1min
Insulation Resistance:	100M $\Omega$ min
Applicable Wire:	38mm <sup>2</sup> max
Circuits Poles:	1 pole

Type: IN200K-C	
Rated voltage:	600V
Rated current:	240A
Dielectric Strength:	2500V, 1min
Insulation Resistance:	100M $\Omega$ min
Applicable Wire:	100mm <sup>2</sup> max
Circuits Poles:	1 pole



# Instruments

## Analogue Meters

	Model	Type	Ratings	Dimension (mm)/ Gross Weight (kg)		
				48x48	72x72	96x96
 Maximum Demand Meter	R-EC**	<b>A.C. Ammeters</b> Moving iron (90° scale) CT operated (1A/5A) / Direct Connection (x1/x2/x3/x4/x5/x6 overscale)	1-6000A (CT operated) 0.1-100A (direct connection)	0.12	0.22	0.31
	R-EC**	<b>A.C. Voltmeter</b> Moving iron (90° scale) Direct Connection / VT operated (30-600V)	1-600V (direct connection) Up to 450kV/30-600V (VT operated)	0.125	0.225	0.315
 Combined Max. Demand Ammeter	R-MC**	<b>Maximum Demand Meter (2 pointer)</b>	8 min 5A, 15 min 5A, 8 min 1A, 15 min 1A	-	0.21	0.28
	R-EMC**	<b>Combined Max. Demand Ammeter (3 pointer)</b>		-	0.22	0.31
 Moving Coil Rectified AC Ammeter	R-BC** (90° scale)	<b>Moving Coil Ammeter</b> Direct connection Shunt operated 90° scale & 240° scale	50mA-30A (Direct connection) Shunt - 50/60/100/150/250/ 400/600mV	0.125	0.22	0.305
	R-ZC** (90° scale)			0.115	0.21	0.30
 Moving Coil Rectified AC Voltmeter	R-BC** (240° scale)	<b>Moving Coil Voltmeter</b> Direct connection Shunt operated 90° scale & 240° scale	1-600V (Direct Connection) Shunt - 50/60/100/150/250/ 400/600mV	0.17	0.29	0.40
	R-ZC** (240° scale)			0.16	0.28	0.39
 Frequency Meter	R-RBC** (90° scale)	<b>Moving Coil Rectified Ammeter</b> Direct connection Shunt operated 90° scale & 240° scale	10mA-10A (Direct connection)	0.175	0.26	0.425
	R-RZC** (90° scale)			0.16	0.24	0.33
 Power Factor Meter	R-RBC** (240° scale)	<b>Moving Coil Rectified Voltmeter</b> Direct connection Shunt operated 90° scale & 240° scale	10-600V (Direct connection)	0.24	0.35	0.43
	R-RZC** (240° scale)			0.23	0.34	0.42
 Wattmeter / Varmeter	R-STC**	<b>Synchroscope</b> 90° scale	-	-	0.53	0.645
	R-UC**	<b>Phase Sequence Indicator</b>	-	-	0.38	0.47
 Frequency Meter	R-HC**	<b>Frequency Meter</b> Pointer Type (90°)	45/55, 55/55, 45/65, 47/53, 57/63, 44/56, 54/66, 450/550, 550/650	0.14	0.22	0.26
	R-HLC**	Reed Type		-	0.275	0.345
 Power Factor Meter	R-2HLC**	Double Reed		-	-	0.43
	R-HZC**	Pointer Type (240°)		0.15	0.30	0.37
 Wattmeter / Varmeter	R-FEMC**	<b>Power Factor Meter</b> 1-phase 90°	0.5cap-1-0.5ind	0.12	0.22	0.31
	R-FEIC**	3-phase 90°	0.3cap-1-0.7ind	0.16	0.27	0.36
 Wattmeter / Varmeter	R-FAZ**	1-phase 240°	0.4cap-1-0.4ind	0.17	0.305	0.40
	R-FTZ**	3-phase 240°	0.7cap-1-0.3ind	0.29	0.45	0.54
 Wattmeter / Varmeter	R-WMC**/R-YMC**	<b>Wattmeter / Varmeter</b> 1-phase 90°	input voltage: 100V, 220V, 380V, 415V	0.45	0.41	0.46
	R-WTC** A/R-YTC** A	3-phase 3 wire 90°		0.5	0.46	0.51
R-WTC** AN/R-YTC** AN	3-phase 4 wire 90°	0.55		0.51	0.57	
R-WMZC**	1-phase 240°	0.5		0.47	0.585	
R-WTZC** /R-YTZC** A	3-phase 3 wire 240°	0.55		0.52	0.635	
R-WTZC** AN/R-YTZC** AN	3-phase 4 wire 240°	0.6		0.565	0.675	

## Digital Panel Meter

	Model	Type	Range	Accuracy	Aux Supply	Dimension(HxWxD)	Gross Weight	Standard
	R-DM3256-*	Digital Voltmeter	0-500V	Class 1	110V - range 80-130V/ 240V - range 170-270V	96x96x80mm	0.4kg	IEC60051-2 IEC60051-4
	R-DM3257-*****	Digital kilo-Voltmeter	3.3kV-69kV				0.45kg	
	R-DM3258-*****	Digital Ammeter	60/5A-800/5A				0.45kg	
	R-DM3261-*****	Digital kilo-Ammeter	1000/5A-6000/5A				0.45kg	
	R-DM3270-*	Digital Frequency Meter	-				0.45kg	

**Note:** 48X48 Wattmeter and Varmeter have separate power converter, so these meters need two boxes to pack it. Because we lack some samples, so we evaluate some products gross weight.

**Insulating Voltage:** 2kv / 1 min

**Changeover Scale:** Scale can be changed without opening the instrument; in some cases even in mounted position.

## Digital Power Analyzer

Model	Description	Display Parameter	Weight
R-DPA96A / DPA96AN (measured neutral)	<b>Basic Unit voltage input</b> upto 404VAC L-N, 700VAC L-L, <b>current input</b> via CT upto 10,000/1 or 5A, <b>VT selection</b> upto 400kV by 60, 100, 110, 120, 173 or 190VAC	Voltage L1, L2, L3 Voltage L12, L23, L31 Current L1, L2, L3, In Active Power (P) L1, L2, L3, Avg Reactive Power (Q) L1, L2, L3, Avg Apparent Power (S) L1, L2, L3, Avg Voltage THD, L1, L2, L3, L12, L23, L31 Current THD L1, L2, L3, In Power Factor L1, L2, L3, Avg Frequency Maximum & Average Demand - Current & Power (PQS) Energy 4 quadrant Ea+, Ea-, Er+, Er-, Es Hour run	0.400kg
R-MODULE 1	Pulse outputs	2 configurable pulse outputs	
R-MODULE 2	Pulse outputs+Harmonics	2 configurable pulse outputs + individual harmonics order upto 25th	
R-MODULE 3	RS485 Jbus/Modbus RTU	Series communication module RS485 on Jbus/Modbus RTU	
R-MODULE 4	Analogue outputs	2 configurable analogue outputs 0/4-20mA (max upto 4 outputs)	
R-MODULE 5	Inputs/Outputs	2 inputs and 2 outputs (max upto 6 outputs)	
R-MODULE 3+6	RS485 Profibus DP	Series communication module RS485 on Profibus DP	
R-MODULE 7	Memory	Storing of P+, P-, Q+, Q-, Min, Max values, Voltage dips, overvoltage, voltage cutoff, real time clock	
S-Control Vision	Software	Standalone software for local visualisation, data logging, submetering application, etc...	

**Digital Power Analyzer DPA96A**  
96x96x60mm (without option)  
96x96x80mm (with option)

## Polyphase kWh Meter

Model	Accuracy	Range	Input Voltage	Input Current	Aux. Supply	Pulse Rate	Dimension (HxWxD)	Gross Weight	Standard
R-MYRA-300	Class 1.0	60/A~6000/5A	57~500V	CT connected /5A	240V a.c.	< 600/5A (1 pulse/1kWh)	96x96x98mm	0.6065kg	IEC61036 IEC60801 EN55020 IEC60255-4
R-MYRA-300-P						≥ 600/5A (1 pulse/10kWh)			

## Digital Meter

Model	Display Parameter	Type	Accuracy Class	Dimension (HxWxD)	Gross Weight
B-EVA-M-##-****	Voltage, Current, Power factor, Frequency	- Line Voltage (1 second average) - Phase Voltage (1 second average) - Line Current (1 second average) - Neutral Current (1 second average) - Supply Frequency (1 second average) - Power Factor (1 second average)	+/-1.0%	96x96x98mm	0.5535kg
B-EVA-E	Power & Energy	- Kilowatt (1 second average) - Kilovar (1 second average) - Kilovoltampere (1 second average) - Aggregate kilowatt-hour - Aggregate kilovar-hour - Aggregate kilovoltampere-hour - Maximum demand (15min, 30min or 60min average)			


## Current Transformers

Model	Type	Class	Burden VA	Ratio	Standard
NRE*	Encapsulated - measuring	0.5, 1, 3	3~30	60/5A-3200/5A	IEC60044-1
NRM*	Tape wound ring - measuring	0.5, 1, 3	3~30	60/5A-3200/5A	
NRP*	Tape wound ring - protection	5P5, 5P10, 5P20, 10P5, 10P10, 10P15	5~30	60/5A-5000/5A	





## DISTRIBUTION & PROTECTION


### DT Earth Fault Protection Relay I DT Overcurrent Protection Relay

	Model	Input Current	Delay Adjustment	Power Consumption	Dimension (HxWxD)	Gross Weight	Standard
 Earth Fault Relay	R-EFM1-* R-EFM2-*	0.1 to 2 amps	0~1 sec	< 0.5VA	96x48x98mm	0.3425kg	IEC60255-4, IEC60801/ EN55020
	R-OCM31-* R-OCM32-*	2 to 6 amps	0~1 sec	< 0.5VA	96x96x98mm	0.6884kg	IEC60255-4, IEC60801/ EN55020

### Earth Leakage Relay

	Model	Sensitivity	Time Delay	Aux Supply	Standards	Dimension	Gross Weight	
 Earth Leakage Relay	R-ELRM-10V	5,10, 30, 50, 75, 100, 300, 500, 750mA 1, 3, 5, 7.5, 10A	0, 50, 100, 250, 500 msec	230V AC	IEC 60755, EN 50081-1, EN 50081-2, EN 50082-1, EN 50082-2. CE compliant	Overall 78x85x63.5mm	0.274kg	
	R-ELRM-30V-M	5,10, 30, 50, 75, 100, 300, 500, 750mA 1, 3, 5, 7.5, 10, 15, 20, 25, 30A	0, 50, 100, 250, 500 msec, 1 sec, 2.5 sec, 10 sec	230 V AC		Cutout 70x45mm	0.274kg	
 Zero Sequence Current Transformer	<b>Zero Sequence Current Transformer</b>							
	R-ZCT035					diameter 35mm	0.084kg	
	R-ZCT070					diameter 70mm	0.148kg	
	R-ZCT120					diameter 120mm	0.276kg	
	R-ZCT210					diameter 210mm	1.97kg	

### Surge Protection Devices

	Model	I <sub>max</sub> /I <sub>imp</sub>	No. of Poles	Configuration	U <sub>n</sub> (VAC)	Gross Weight
	R-SPD2011	20kA	1	Monoblock	230	0.070kg
	R-SPD4511	40kA	1	Monoblock	230	0.100kg
	R-SPD6511	65kA	1	Monoblock	230	0.140kg
	R-SPD10011S	100kA	1	Monoblock+signal	230	0.230kg
	R-SPD10013S	100kA	1	Monoblock+signal	400	0.230kg
	R-SPD202	20kA	1P+N	Monoblock	230	0.100kg
	R-SPD452	40kA	1P+N	Monoblock	230	0.135kg
	R-SPD652	65kA	1P+N	Monoblock	230	0.175kg
	R-SPD204S	20kA	3P+N	Monoblock+signal	400	0.215kg
	R-SPD454S	40kA	3P+N	Monoblock+signal	400	0.265kg
	R-SPD654S	65kA	3P+N	Monoblock+signal	400	0.315kg

Standard: (E - Low voltage (73/23/EEC), DIN VDE 0675-6 : 1989-11, DIN VDE 0675-6/ A 1: 1996-03, EMC (89/336/EEC), UL-1449-2, IEC 61643-1, DIN VDE 0110-1: 1997-04, AS 1768: 1991, BS 6651: 1992, CP 33

# MicroRex Time switches

## MicroRex D Plus

Pack	Cat. No.	MicroRex D Plus
		Working reserve: 6 years Accuracy: ±1 second per day Programmable for 1 minute min. at 1 minute steps either as 24 hour/7 day using pre-set groups of days One programme consists of 1 "ON" and 1 "OFF" time and the allocation of any day of the week or a combination of days. Plus the selected channel Example: Prog. 1 On 07.00hrs Off 06.15hrs Mon-Fri Ch1 Prog. 2 On 16.00hrs Off 20.15hrs Mon-Fri Ch2 Prog. 3 On 10.00hrs Off 16.15hrs Sat-Sun Ch1 <b>Additional features:</b> EEPROM memory stores programme indefinitely Optional automatic summer/winter time change Manual override (ON or OFF) Automatic advance (changes contact position until next automatic ON time)
1	6047 74	<b>MicroRex D21 Plus</b> 24 hour or 7 day, 28 programme, 1 channel 1 x 16 A voltage free c/o contact
1	6047 77	<b>MicroRex D22 Plus</b> 24 hour or 7 day, 2 x 14 programme, 2 channel 2 x 16 A voltage free c/o contacts



Conform to EN 60730-1 and EN 60730-2-7  
 Supply voltage: 230 V  $\pm$  50/60 Hz  
 LCD digital display  
 Mount on DIN rail EN 60715

## MicroRex D

Pack	Cat. No.	MicroRex D
		Working reserve: 100 hours Accuracy: ±2.5 seconds per day <b>7 day programme</b> Programmable for 1 minute min. at 1 minute steps <b>Additional features:</b> Manual advance/override (ON-OFF) Automatic override (ON-OFF) for holidays, weekends or bank holidays up to 90 days successively Automatic summer/winter setting
1/20	0037 00	<b>MicroRex D11 - 1 module</b> 8 programmes, 1 channel 1 x 16 A - 250 V $\pm$ voltage free c/o contacts with 8 "ON-OFF" per day or per week

## MicroRex - 1 & 3 module



Conform to EN 60730-1 and EN 60730-2-7  
 Supply voltage: 230 V  $\pm$  +10% -15%  
 Accuracy: ±5 minutes per day  
 Voltage free contacts with ON-OFF-AUTOMATIC: 3 position switch  
 Mount on DIN rail EN 60715

Pack	Cat. No.	MicroRex - 1 module
		<b>24 hour programme</b> Programmable for 15 minutes minimum at 15 minute intervals
1	0037 30	<b>MicroRex T11</b> Without working reserve - 50 Hz
1/10	0037 40	<b>MicroRex QT11</b> With 100 hr working reserve - 50/60 Hz
		<b>MicroRex - 3 modules</b> <b>24 hour programme</b> Programmable for 30 minutes minimum at 15 minute intervals
1/10	0037 52	<b>MicroRex T31</b> Without working reserve - 50 Hz

# Transformer

## 3-Phase Transformer

Capacity (KVA)	Case Dimension (mm) L x W x H	Total Weight (kg)	T1 Dimension (mm) L x W x H	T1 Weight (kg)
1	355 x 218 x 245	19.2	355 x 185 x 199 x 185	16.1
1.5	395 x 218 x 245	23.5	405 x 195 x 205	20.5
2	395 x 218 x 245	26.5	418 x 198 x 208	23.5
2.5	385 x 265 x 338	38	378 x 178 x 278	32
3	385 x 265 x 338	48.5	378 x 198 x 278	38.5
4	385 x 265 x 338	51	378 x 198 x 278	43.5
5	385 x 265 x 338	66	368 x 208 x 278	53
6	385 x 265 x 338	64	368 x 218 x 298	57
7	385 x 318 x 428	84	315 x 205 x 318	75
8	385 x 318 x 428	85	328 x 215 x 318	80
9	515 x 368 x 515	189	368 x 218 x 338	95
10	515 x 368 x 515	153	368 x 228 x 338	97
12	515 x 368 x 515	123	368 x 238 x 338	117
14	515 x 368 x 515	139	368 x 248 x 338	114
15	515 x 368 x 515	149	368 x 245 x 338	122
17	515 x 368 x 515	147	368 x 258 x 348	138
18	665 x 465 x 615	179	428 x 258 x 408	148
20	665 x 465 x 615	189	448 x 268 x 408	158
22	665 x 465 x 615	199	448 x 258 x 428	167
25	665 x 465 x 615	219	448 x 275 x 428	185

Capacity (KVA)	Case Dimension (mm) L x W x H	Total Weight (kg)	T1 Dimension (mm) L x W x H	T1 Weight (kg)
30	675 x 465 x 798	245	588 x 258 x 478	216
35	675 x 465 x 798	278	588 x 268 x 498	248
40	695 x 465 x 798	308	618 x 278 x 518	278
45	695 x 465 x 798	325	538 x 288 x 518	295
50	728 x 548 x 798	348	548 x 288 x 518	318
60	728 x 548 x 798	368	548 x 338 x 538	338
70	748 x 598 x 858	418	548 x 358 x 538	368
75	748 x 598 x 858	418	608 x 368 x 588	368
80	798 x 648 x 938	425	608 x 408 x 608	388
90	798 x 648 x 938	428	608 x 418 x 628	388
100	898 x 648 x 938	488	608 x 418 x 628	448
120	898 x 648 x 938	488	648 x 468 x 688	488
150	898 x 698 x 938	508	728 x 528 x 688	508
180	898 x 698 x 938	658	738 x 528 x 688	598
200	958 x 758 x 1058	648	808 x 528 x 778	678
250	958 x 758 x 1058	948	808 x 528 x 778	878
300	1158 x 858 x 1258	908	908 x 548 x 778	918

## 1-Phase Transformer

Power Rating (VA)	Dimension (With Casing) L x W x H	Weight (with casing) (kg)	Dimension (Transformer) L x W x H	Weight (Transformer) (kg)
1.8 KVA	300 x 215 x 250	25.7 kg	181 x 200 x 205	22.5 kg
2 KVA	300 x 215 x 250	27.5 kg	192 x 200 x 205	24.3 kg
2.6 KVA	300 x 215 x 250	30.5 kg	192 x 210 x 205	27.3 kg
3 KVA	300 x 215 x 250	33.2 kg	192 x 220 x 205	30kg
3.5 KVA	385 x 255 x 325	40.0 kg	243 x 200 x 225	33 kg
4 KVA	385 x 255 x 325	45.5 kg	243x 210 x 225	35 kg
4.5 KVA	385 x 255 x 325	45.0 kg	243 x 210 x 220	38 kg
5 KVA	385 x 255 x 325	51.5 kg	243 x 220 x 255	41 kg
5.6 KVA	385 x 255 x 325	54.5kg	243 x 220 x 255	47 kg
6 KVA	385 x 255 x 325	58.5kg	243 x 230 x 255	51 kg
6.6 KVA	385 x 255 x 325	60 kg	243 x 235 x 255	52.5 kg
7 KVA	385 x 255 x 325	61.5 kg	243 x 240 x 255	54 kg
7.6 KVA	385 x 255 x 325	63 kg	243 x 245 x 255	57 kg
8 KVA	385 x 255 x 325	66 kg	243 x 250 x 255	58.5 kg
8.5 KVA	385 x 255 x 325	72.5 kg	243 x 260x 255	65 kg
9 KVA	410 x 350 x 420	84 kg	330 x 260 x 270	74 kg
9.5 KVA	410 x 350 x 420	86 kg	330 x 265 x 270	76 kg
10 KVA	410 x 350 x 420	88 kg	330 x 270 x 270	78 kg
12 KVA	515 x 360 x 510	109 kg	370 x 260 x 340	93 kg
15 KVA	605 x 405 x 610	136 kg	370 x 300 x 350	109 kg
20 KVA	605 x 485 x 610	160 kg	370 x 320 x 380	132 kg

## Single-Phase Transformer

Size	Maximum Capacity (VA)	Dimensions (in mm)							Weight (Approx) (kg)	
		A	B	C	D	Hole Diameter	E	F		
EI-76	x 28	40	77	63	83	48	5.0	68.5	88	1.3
	x 35	55	77	78	83	58	5.0	68.5	88	1.5
	x 40	65	77	78	83	61	5.0	68.5	88	1.7
EI-86	x 40	80	88	78	71	88	5.0	74.0	94	2.1
	x 50	90	88	88	71	88	5.0	74.0	94	2.3
EI-96	x 32	95	96	77	80	57	6.0	88.8	106	2.2
	x 40	105	96	88	80	68	6.0	88.8	106	2.6
	x 45	120	96	98	80	78	6.0	88.8	106	3.0
	x 50	170	96	97	80	77	6.0	88.8	106	3.3
EI-106	x 60	190	96	105	80	85	6.0	88.8	106	3.8
	x 45	190	105	82	85	78	5.0	88.5	112	3.7
	x 96	210	105	103	85	87	5.0	88.5	112	4.3
EI-114	x 50	260	114	88	95	88	6.0	98.5	122	4.8
	x 90	300	114	109	95	88	6.0	98.5	122	5.4
EI-130	x 96	460	134	116	112	88	6.0	114.8	139	7.1
	x 95	540	134	118	112	94	6.0	114.8	139	8.0
	x 75	660	134	128	110	104	6.0	114.8	139	8.6
EI-152	x 90	800	153	125	128	96	6.0	132.5	167	16.1
	x 75	1090	153	148	128	110	6.0	132.5	167	12.2
	x 96	1190	153	151	128	122	6.0	132.5	167	13.8
EI-171	x 75	1290	172	127	142	118	6.0	148.0	179	18.8
	x 90	1350	172	142	142	128	6.0	148.0	179	16.5
x 96	1500	172	148	142	128	6.0	148.0	179	17.6	

