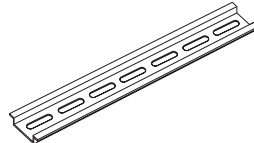
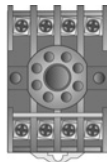


Accessories

DIN Rail/Surface Mount Sockets



DIN Rail Mount Sockets

- 8 pin 600 V AC..... 12.2
- 8 pin 300 V AC..... 12.2
- 11 pin 300 V AC..... 12.2
- Hold Down Clips..... 12.2
- DIN Rail..... 12.3

Surface Mount Sockets

- 8 pin 600 V AC..... 12.3
- Hold Down Brackets 12.3

Mounting Methods, Terminals, Varistors, Cover and Marker



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- Front Panel Mount Kit..... 12.4
- DIN Rail Mount Adaptor 12.4
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- Heat Sink Compound 12.4
- Quick Connect Screw Adaptor..... 12.5
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- Metal Oxide Varistors 12.5
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Timer Adjustment Options & Dials



- Versa Pot 12.6
- Q-Pot 12.6
- Versa Knob 12.6
- Lock Shaft 12.6
- Mini Pot 12.7
- Mini Knob 12.7
- Time Adjustment Dials..... 12.7
- VTP/VTR..... 12.7

Motor Protectors



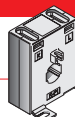
- Three Phase Fuse Block/Disconnect .12.9
- Front Panel Mount Kit..... 12.9
- Voltage Reduction Module 12.9

Liquid Level Probes & Probe Holders



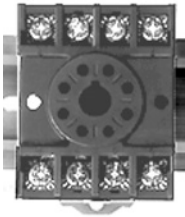
- Liquid Level Control Electrodes 12.10
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- Suspension Electrode 12.10
- Compact Probe Holder KH-3 12.11
- KH-3 Compact Probe Support..... 12.11
- Bar Electrodes 12.11

Current Transformers



- Current Transformers..... 12.8

Accessories Mounting Sockets



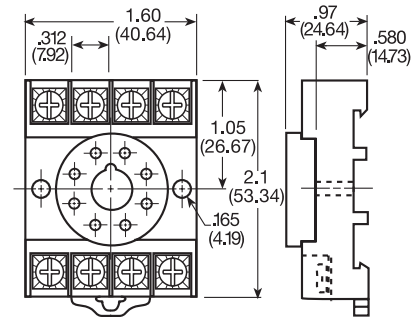
Approvals:

DIN Rail or Surface Mount Sockets 8 Pin Octal Socket (600 VAC)

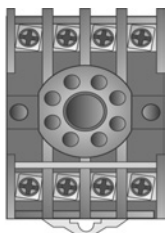
Description

8 pin 35 mm DIN rail or surface mount socket. OT08PC is rated at 10 A at 600 V AC and has pressure clamp terminals. For use with AWG 12 to 22 (3.2 to 0.33 mm²) wire sizes. Hold-down clips not available.

P/N: OT08PC



Inches (Millimeters)



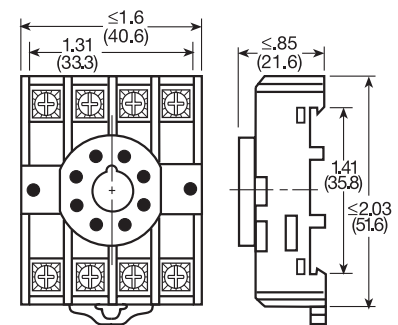
Approvals:

8 Pin Octal Socket (300 VAC)

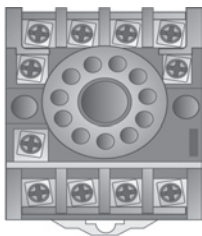
Description

May be surface mounted with two #6 (M 3.5 x 0.6) screws or snaps onto a 35 mm DIN rail. A spring mechanism allows easy removal. Screw terminals with captive wire clamps accept up to two #14 AWG (2.45 mm²) wires. Rated 10 A at 300 V AC. Uses PSC8 hold-down clips.

P/N: NDS-8



Inches (Millimeters)



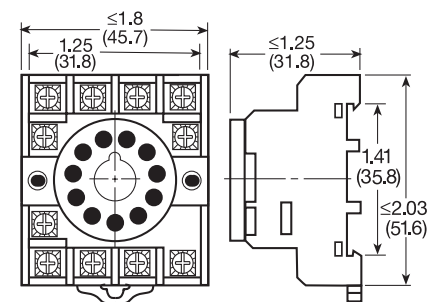
Approvals:

11 Pin Magnal Socket

Description

May be surface mounted with two #6 (M 3.5 x 0.6) screws or snaps onto a 35 mm DIN rail. A spring mechanism allows easy removal. Screw terminals with captive wire clamps accept up to two #14 AWG (2.45 mm²) wires. Rated 10 A at 300 V AC. Uses PSC11 hold-down clips.

P/N: NDS-11



Inches (Millimeters)

Hold-Down Clips

Description

Securely mounts plug in controls in any position. Also provides protection against vibration. Select the PSC8 for use with NDS-8 or the PSC11 for use with NDS-11 sockets. Comes in sets of two.

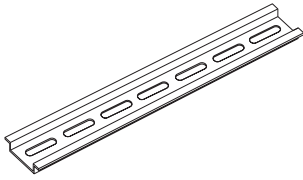
P/N: PSC8
PSC11



Accessories

Mounting Sockets

Solid state relays

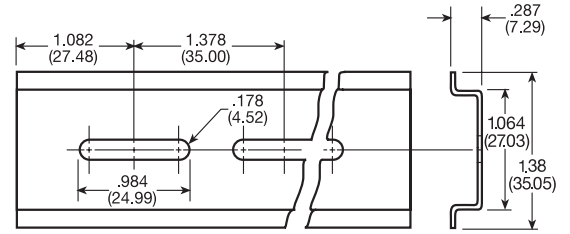


DIN Rail

Description

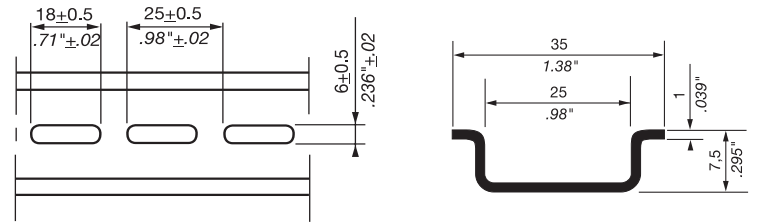
Industry standard 35 mm aluminum or steel DIN rail. C103PM aluminum rail is available in 36 in. (91.4 cm) lengths. 017322005 zinc bichromate plated steel rail is available in 78 in. (2 m) lengths.

P/N: C103PM (Al)
017322005 (Steel)



Inches (Millimeters)

C103PM Aluminum Rail
(Prepunched cut out dimensions are approximate.)



Inches (Millimeters)

017322005 Zinc Bichromate Plated Steel Rail
(Prepunched cut out dimensions are approximate.)



Approvals:

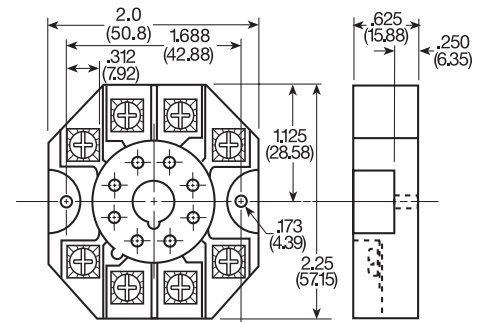
Surface Mount Sockets

8 Pin Octal Socket (600 VAC)

Description

8 pin surface mount socket with binder head screw terminals. Rated 10 A at 600 V AC. When used with TDM, TDB, TDS Series timers the combination is UL Listed. Uses PSCRB8 hold-down brackets.

P/N: P1011-6



Inches (Millimeters)

Hold-Down Brackets

Description

Designed for use with P1011-6 socket. Securely mounts 8 pin plug-in controls in any position, and provides protection against vibration. Comes in sets of two.

P/N: PSCRB8



MS002B01 06.09.05

Accessories

Mounting Methods, Terminals, Varistors, Cover and Marker

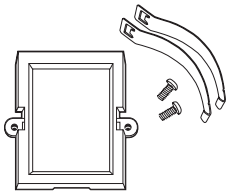
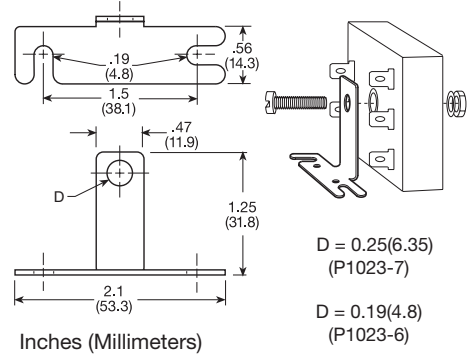


Mini-Mount/Standard Mount Bracket

Description

Provides a convenient method of mounting 2 x 2 x 1.21 in. (50.8 x 50.8 x 30.7 mm) or 2 x 3 x 1.5 in. (50.8 x 76.2 x 38.1 mm) modules. The 90° orientation of mounting slots makes installation/removal of modules quick and easy. The P1023-6 secures to module with a #8 (M4 x 0.7) screw. The P1023-7 secures to 2 x 2 x 1.21 in. (50.8 x 50.8 x 30.7 mm) module with Mini-Pot for local adjustment. Made from steel with a cadmium surface finish.

Mounting Method	Mounting Hole Size	P/N
#8 (M4 x 0.7) screw	0.19 in. (4.8 mm)	P1023-6
Mini-Pot	0.25 in (6.35 mm)	P1023-7

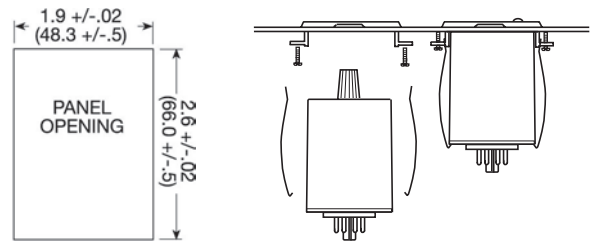


Front Panel Mount Kit

Description

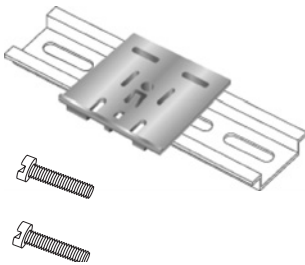
Provides an easy method of through-the-panel mounting of 8 or 11 pin plug-in timers, flashers, and other controls. May be mounted in panels up to 0.125 in. (3.2 mm) thick. Includes two clamps and two screws.

P/N: BZ1



Inches (Millimeters)

Illustrates panel opening size required to mount BZ1.

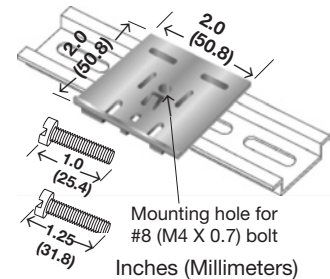


DIN Rail Mount Adaptor

Description

Allows any 2 x 2 in. (50.8 x 50.8 mm) or 2 x 3 in. (50.8 x 76.2 mm) module to be mounted on a 35 mm DIN type rail. Comes complete with mounting hardware for 0.75 in. (19 mm) and 1 in. (25.4 mm) thick modules.

P/N: P1023-20



Inches (Millimeters)

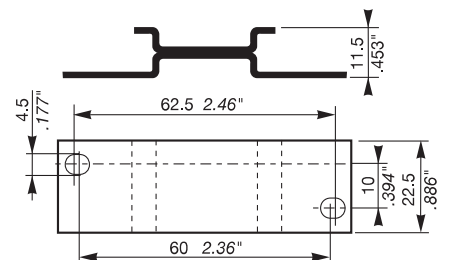


Back Panel Mount Adaptor

Description

Provides a method for mounting 35 mm DIN 3 mounting timers and controls on the equipment's enclosure or back panel. Mount with two #6 (M3.5 x 0.6) screws.

P/N: 1SVR 430 029 R 0100



Heat Sink Compound

Description

Bulk heat sink compound sufficient to mount over 50 high current, plated 2" x 2" (50.8 x 50.8 mm) timers or flashers. Contains approximately 100 grams.

P/N: P0200-20

Accessories

Mounting Methods, Terminals, Varistors, Cover and Marker

Solid state relays

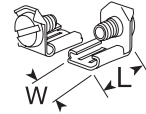


Quick Connect Screw Adaptor

Description

Screw adaptor terminal designed for use with all modules with 0.25 in. (6.35 mm) male quick connect terminals. Screw terminal accepts ring or spade terminals.

P/N: P1015-18



L = 0.55 (41.0)
W = 0.32 (8.1)
Inches (Millimeters)

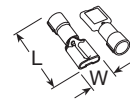


Female Quick Connect Terminals

Description

These 0.25 in. (6.35 mm) female terminals are constructed with an insulator barrel to provide strain relief.

Part Number	Wire Size
P1015-13	AWG 10/12 (5.3/3.2 mm ²)
P1015-64	AWG 14/16 (2.5/1.3 mm ²)
P1015-14	AWG 18/22 (0.93/0.33 mm ²)

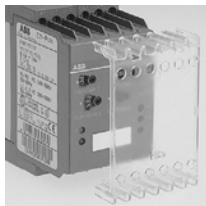


L = 0.83 (21.1)
W = 0.3 (7.6)
Inches (Millimeters)



Metal Oxide Varistors

P/N	Max. Operating Voltage		Max Impulse Current 80/20 us current wave (A)	Varistor Voltage at 1 mA DC Test Current		Peak Clamping Voltage with 80 us wave		Capacitance (pF)	Size (mm)
	DC (V)	AC (V)		Min.(V)	Max.(V)	Vc (V)	Ip (A)		
P1012-27	200	150	1200	212	268	395	10	150	7
P1012-25	200	150	4500	212	268	395	50	800	14
P1012-3	369	275	1200	389	515	775	10	85	7
P1012-6	369	275	4500	389	475	710	50	450	14

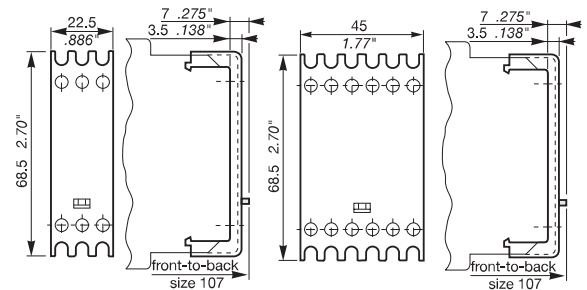


Sealable Transparent Cover

Description

Protection against unauthorized adjustments of 22.5 mm and 45 mm IEC type timers and controls.

Part Number	Cover Size
1SVR 430 005 R 0100	22.5 mm
1SVR 440 005 R 0100	45 mm



Cover for 22.5 mm

Cover for 45 mm



Marker Insert

Description

Replacement unit marker insert for use with 22.5 mm and 45 mm IEC timers and controls that include replaceable markers.

P/N: 1SVR 366 017 R 0100



Accessories

Timer Adjustment Options and Dials



Approvals: cULus

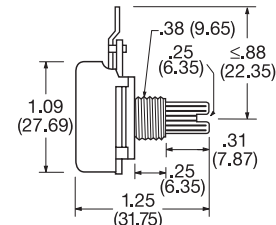
Versa-Pot

Description

Panel mountable, industrial potentiometer recommended for remote time delay adjustment. The shaft is slotted for screwdriver adjustment and serrated for slip-proof finger adjustment. Accepts Versa-Knob or Lock Shaft. May be ordered with two 8 in. (20.3 cm) wires soldered to pot (clockwise increase) and female quick connect terminals on other ends by adding suffix -X to end of part number.

Versa Pot P/N	With Wire Leads	Value
P1004-198	P1004-198-X	25KΩ
P1004-199	P1004-199-X	50KΩ
P1004-95	P1004-95-X	100KΩ
P1004-17	P1004-17-X	500KΩ
P1004-16	P1004-16-X	1 MΩ
P1004-15	P1004-15-X	1.5 MΩ
P1004-14	P1004-14-X	2 MΩ
P1004-12	P1004-12-X	3 MΩ
P1004-13	P1004-13-X	5 MΩ

Specifications	
Rating	0.25W at 55°C
Taper	Linear
Shaft Rotation	300° +/-5°
Tolerance	+/-10%



Inches (Millimeters)

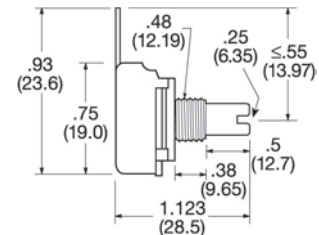
Q-Pot

Description

A high quality cermet potentiometer for use when linearity and stability are important and when high temperature or harsh environments exist. Accepts Versa-Knob or Lock Shaft. May be ordered with two 8 in. (20.3 cm) wires soldered to pot (clockwise increase) and female quick connect terminals on other ends by adding suffix -X to end of part number.

P/N	With Wire Leads	Value
P1004-3	P1004-3-X	500KΩ
P1004-4	P1004-4-X	1 MΩ

Specifications	
Rating	2W at 70°C
Taper	Linear
Shaft Rotation	280° +/-5°
Tolerance	+/-10%



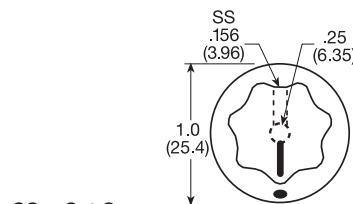
Inches (Millimeters)

Versa-Knob

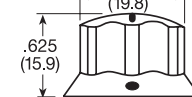
Description

Versa-Knob is designed for 0.25 in. (6.35 mm) shaft of Versa-Pot or Q-Pot. Semi-Gloss industrial black finish.

P/N: P0700-7



SS = Set Screw



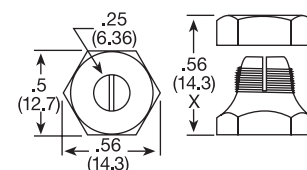
Inches (Millimeters)

Lock Shaft

Description

Fits 0.25 in. (6.35 mm) potentiometer shafts. Locks by tightening nut onto four tapered/slotted fingers. Pressure on the shaft locks control against mis-adjustment. Nickel plated brass finish.

P/N: P0700-8



X = Locked on shaft

Inches (Millimeters)

Accessories

Timer Adjustment Options and Dials

Solid state relays



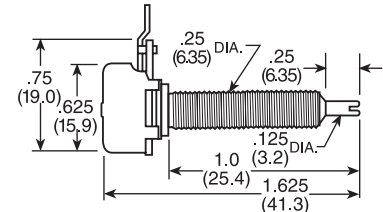
Mini-Pot

Description

A high quality, industrial potentiometer for remote time delay adjustment. The shaft extends through the timer's center hole for easy panel mounting. Use mini-mount bracket for standup mounting of timer. Adjustment by screwdriver or mini-knob. May be ordered with two 3 in. (7.6 cm) wires soldered to pot (clockwise increase) and female quick connect terminals on other ends by adding suffix -X to end of part number.

P/N	With Wire Leads	Value
P1004-9	P1004-9-X	500KΩ
P1004-10	P1004-10-X	1 MΩ
P1004-31	P1004-31-X	3 MΩ

Specifications	
Rating	0.25W at 55°C
Taper	Linear
Shaft Rotation	300° +/-5°
Tolerance	+/-10%



Inches (Millimeters)

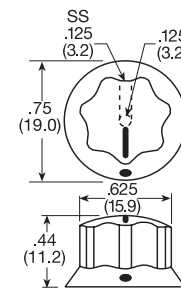


Mini-Knob

Description

Black plastic control knob with fluted body and white index/dot for setting accuracy. Mounts on 0.125 in. (3.2 mm) shaft of Mini-Pot.

P/N: P0700-21



SS = Set Screw
Inches (Millimeters)

Time Adjustment Dials

Description

Dials for use with remote Versa-Pot and panel mounted Mini-Pot. Reverse screen printed on clear plastic to avoid damage to printed image.



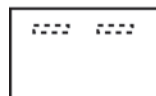
P/N	Range	Increments	P/N	Range	Increments
P0400-12	.05 ... 1s	0.1s	P0400-20	2 ... 180s	30s
P0400-13	.05 ... 2s	0.2s	P0400-21	0.1 ... 4m	0.5m
P0400-14	.05 ... 3s	0.5s	P0400-22	0.1 ... 5m	0.5m
P0400-15	0.1 ... 5s	0.5s	P0400-23	0.1 ... 6m	1m
P0400-82	0.1 ... 10s	1s	P0400-24	0.1 ... 7m	1m
P0400-17	1 ... 30s	5s	P0400-25	0.1 ... 8m	1m
P0400-83	1 ... 60s	10s	P0400-26	0.1 ... 10m	1m
P0400-19	2 ... 120s	20s	P0400-27	0...10	MRD*

*Multiplier Reference Dial

VTP/VTR

Description

The VTP Series mounts on modules with in-line adjustment terminals. Rated at 0.25W at 55°C. Available in resistance values from 5KΩ to 5MΩ.



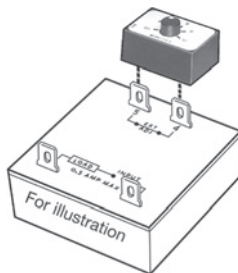
VTP
Top View

Ordering Table (select one from each column)

Series	R _T Value	Range
VTP	A - 5KΩ	A - 0.05 ... 1 s
	B - 10KΩ	B - 0.05 ... 3 s
	C - 20KΩ	C - 0.1 ... 10 s
	D - 50KΩ	D - 0.5 ... 10 s
	0 - 250KΩ	E - 0.5 ... 20 s
	1 - 0.5 MΩ	F - 0.5 ... 60 s
	2 - 1 MΩ	G - 1 ... 100 s
	3 - 2 MΩ	H - 2 ... 120 s
	4 - 3 MΩ	J - 2 ... 180 s
	5 - 5 MΩ	K - 10 ... 1000 s
		L - 0.1 ... 4 m
		M - 0.1 ... 6 m
		N - 0.1 ... 10 m
		P - 1 ... 100 m
		R - 0 ... 10 MRD*
		S - 0.1 ... 8 m
		T - 0.1 ... 5 m
		X - All time range labels

Example P/N: **VTP4F**

*Multiplier Reference Dial



Approvals:

AC003B01 12/09/05

Accessories

Current Transformers CM-CT



CM-CT



CM-CT with mounted accessories



CM-CT-A
DIN Rail Adaptor
P/N 1SVR450118R1000

Current Transformers CM-CT

- Primary AC current from 50 A to 600 A in 9 ranges
- Secondary current from 0 to 1 A or 0 to 5 A
- Class 1 accuracy = +/- 1% of the measured value
- Use with or without mounting brackets and buss bar fastening screws
- Protected connection terminals with 2 screws for each secondary connection

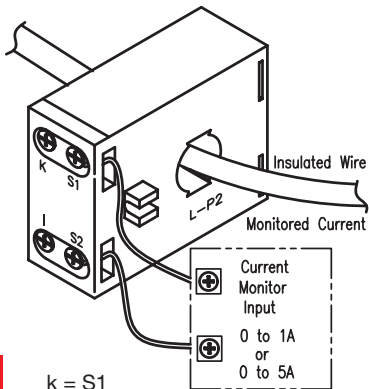
Secondary Current 1 A

Type	Nominal/ primary current	Power/ Accuracy (%)	New Part Number	Center Dimension (mm)	Old Part Number
CM-CT 50/1	50 A	1 VA / 1	1SVR 450 116 R1000	20	E4 450 116 10
CM-CT 75/1	75 A	1.5 VA / 1	1SVR 450 116 R1100	20	E4 450 116 11
CM-CT 100/1	100 A	2.5 VA / 1	1SVR 450 116 R1200	20	E4 450 116 12
CM-CT 150/1	150 A	2.5 VA / 1	1SVR 450 116 R1300	20	E4 450 116 13
CM-CT 200/1	200 A	2.5 VA / 1	1SVR 450 116 R1400		E4 450 116 14
CM-CT 300/1	300 A	5 VA / 1	1SVR 450 117 R1100	10 x 30	E4 450 117 11
CM-CT 400/1	400 A	5 VA / 1	1SVR 450 117 R1200	10 x 30	E4 450 117 12
CM-CT 500/1	500 A	5 VA / 1	1SVR 450 117 R1300	10 x 30	E4 450 117 13
CM-CT 600/1	600 A	5 VA / 1	1SVR 450 117 R1400	10 x 30	E4 450 117 14

Secondary Current 5 A

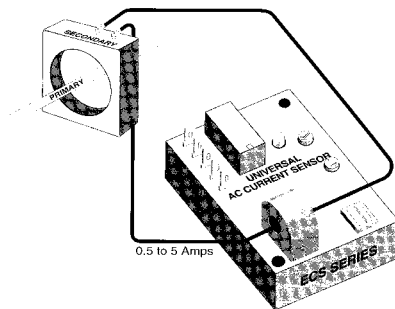
Type	Nominal/ primary current	Power/ Accuracy (%)	New Part Number	Center Dimension (mm)	Old Part Number
CM-CT 50/5	50 A	1 VA/1	1SVR 450 116 R5000	20	E4 450 116 50
CM-CT 75/5	75 A	1.5 VA/1	1SVR 450 116 R5100	20	E4 450 116 51
CM-CT 100/5	100 A	2.5 VA/1	1SVR 450 116 R5200	20	E4 450 116 52
CM-CT 150/5	150 A	2.5 VA/1	1SVR 450 116 R5300	20	E4 450 116 53
CM-CT 200/5	200 A	5 VA/1	1SVR 450 116 R5400	20	E4 450 116 54
CM-CT 300/5	300 A	5 VA/1	1SVR 450 117 R5100	10 x 30	E4 450 117 51
CM-CT 400/5	400 A	5 VA/1	1SVR 450 117 R5200	10 x 30	E4 450 117 52
CM-CT 500/5	500 A	5 VA/1	1SVR 450 117 R5300	10 x 30	E4 450 117 53
CM-CT 600/5	600 A	5 VA/1	1SVR 450 117 R5400	10 x 30	E4 450 117 54

Connection Diagrams



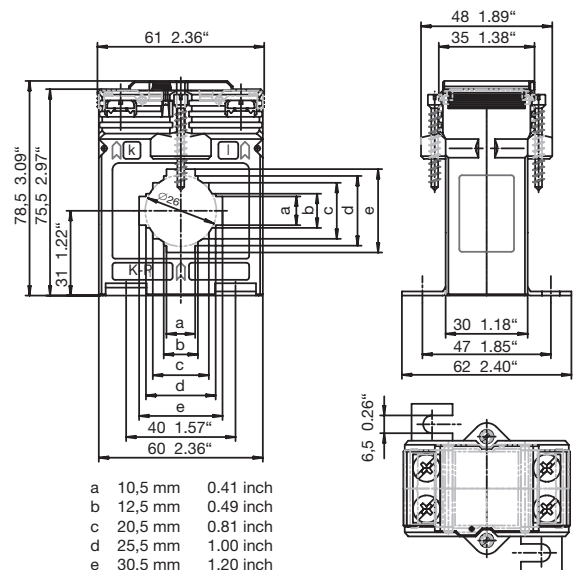
k = S1
l = S2
L - P2 = Phase Orientation
K - P1 = Phase Orientation

CM-CT
Connected to A current monitor with CT input connections



CM-CT
Connection to a current monitor with built in toroid current transformer. A wire connected from S1 to S2 is passed through the toroidal sensor.

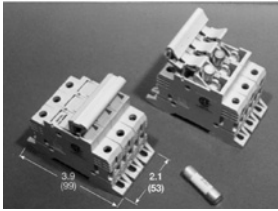
Mechanical View



Accessories

Motor Protectors

Solid state relays



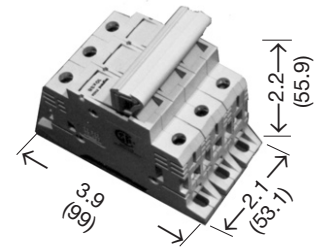
Three Phase Fuse Block/Disconnect

Description

Three phase fuse block disconnect designed for use with HRC midget fuses [1.5 x .41 in. (38.1 x 10.4 mm)] rated up to 25 A at 500 V AC. Surface or 35mm DIN rail mountable. 3.9 x 2.09 x 2.2 in. (99 x 53.1 x 55.9 mm)

Midget Fuse

Fast acting fuse for use with voltage monitors. Rated 2 A at 500 V AC. 1.5 x .41 in. (38.1 x 10.4 mm)

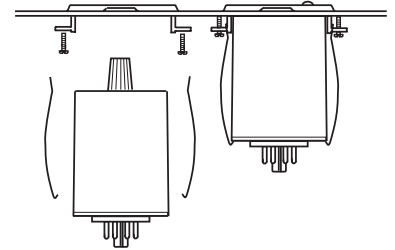
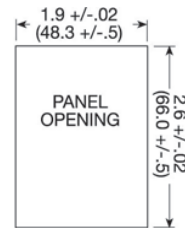
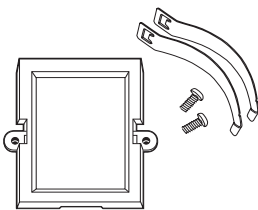


Part Number	Description
P0700-241	Fuse Block
P0600-11	Fuse

Front Panel Mount Kit

Description

Provides an easy method of through-the-panel mounting of 1.78 x 2.39 in. (60.7 x 45.2 mm) 8 or 11 pin plug-in controls. May be mounted in panels up to 0.125 in. (3.2 mm) thick. Includes two clamps and two screws.

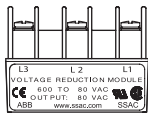


P/N: BZ1

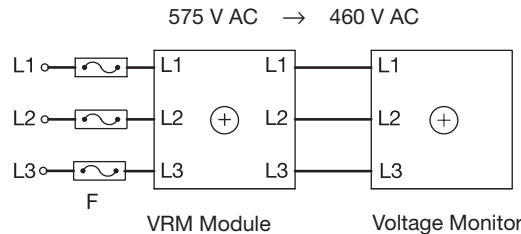
Inches (Millimeters)

Illustrates panel opening size required to mount BZ1.

Accessory Module



The VRM6048 Accessory Module allows the voltage monitor to monitor a 3-Phase 550 ... 600 V AC Line. The VRM can be used with voltage monitor series: TVM, TVW, PLM, PLR, and PLS manufactured after December 2003.



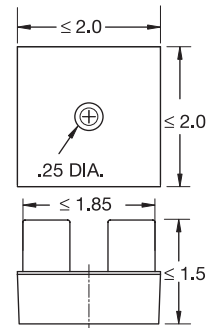
P/N: VRM6048

* The VRM6048 must be connected as shown. If the voltage monitor is disconnected, the VRM output voltage equals the input voltage.

Adjustment: If the measured line voltage is 575 V AC, connect as shown and adjust/select the voltage monitor for 460 V AC operation.

Voltage:	INPUT	*OUTPUT
	600 V AC	480 V AC
	575 V AC	460 V AC
	550 V AC	440 V AC

- Package: Molded Housing with Encapsulated Circuitry
- Mounting: Surface Mount with One #10 (M5 x 0.8) Plastic Screw. May be DIN Rail Mounted Using P1023-20 Adaptor.
- Termination: Screw Terminals with Captive Wire Clamps for up to No.12 AWG Wire.



Inches (Millimeters)

F = 2 A Fast Acting Fuses are recommended but not required.

- Operating: -40°C to +70°C
- Storage: -40°C to +85°C
- Humidity: 95% Relative, Non-Condensing

MP001B01 02.22.05

Accessories

Liquid Level Probes and Probe Holders

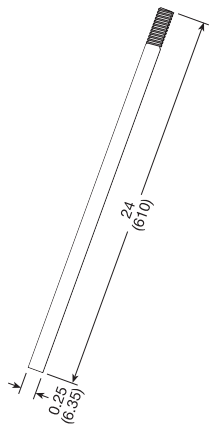
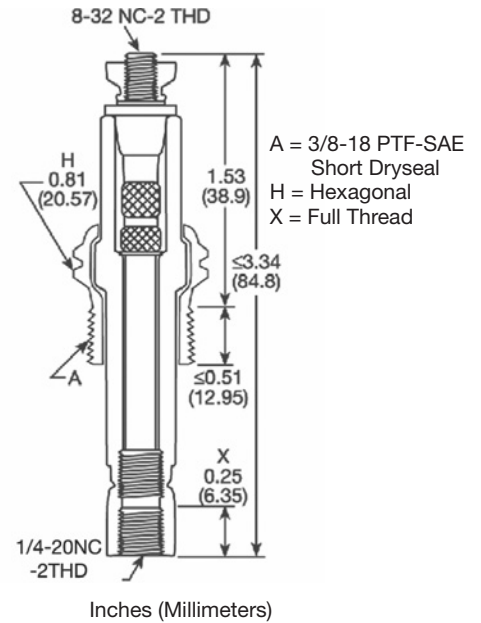


Liquid Level Control Electrodes

Description

Designed for use with all conductive liquid level controls. Composed of an alumina insulator and metal parts made of number 300 series nonmagnetic stainless steel. These internally conductive glass-sealed electrodes are capable of up to 2,500 PSI (172.4 bars) at 21°C and 371°C at 1 atmosphere.

Part Number	Description
WCC-1138	Electrode (UL Recognized)
WCC-1138-3	Electrode with Common Connection



Inches (Millimeters)

Liquid Level Probe

Description

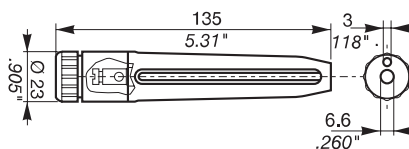
Threaded stainless steel probe measuring 24 in. (61 cm) long. Designed for use with WCC-1138 and WCC-1138-3 liquid level control electrodes.

P/N: LLP-24

Suspension Electrode

Description

Steel electrode (X 12 CR Mo S 17) with sleeve (Lupulen 6011 L) suitable up to 60°C max. Attaches to an insulated wire suspended from the top of the holding tank. Length of wire determines the sensing location.



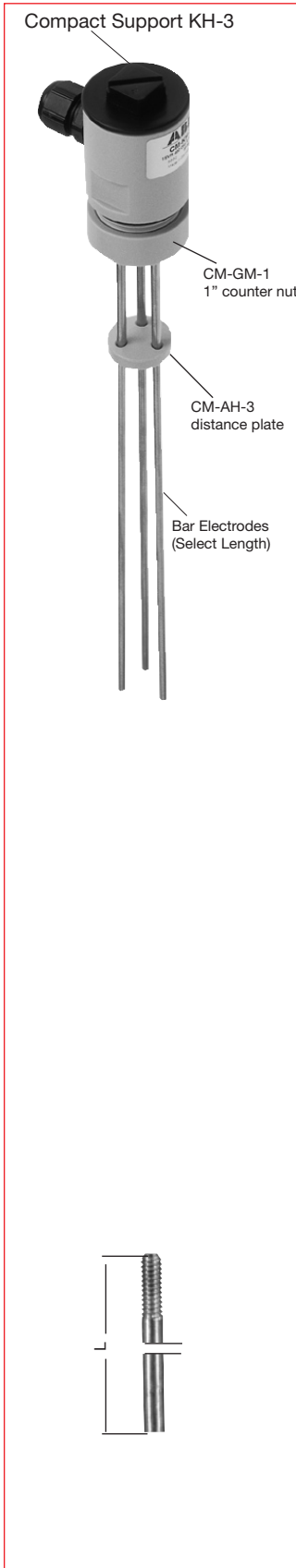
Part Number	Pack. unit (pieces)	Weight 1 pc. kg/oz
1SVR 402 902 R 0000	1	0.053/1.855



Accessories

Liquid Level Probes and Probe Holders

Solid state relays



Compact Probe Holder KH-3 for 3 bar electrodes

- Ideally suited for use with liquid level relays
- Wire connection by screw terminals
- Strain relief by M16 cable gland
- Temperature range up to 90 °C
- Food safe material (PPH)
- Screw-in electrodes (M4 thread)
- Distance plate (AH-3) and locking nut (GM-1) optionally available as accessories

KH-3 Compact Probe Support

Description

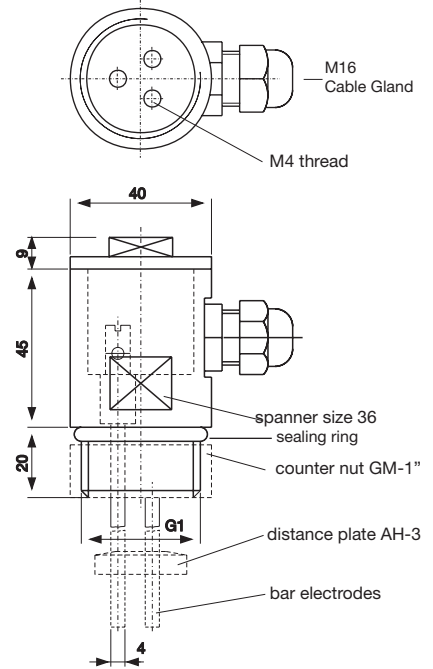
Type of mounting: G 1" thread
 Mounting position: any
 Enclosure material: PPH
 Sealing: NBR 70
 Temperature range: 90 °C max.
 Pressure: 10 bar max. (60 °C)

Accessories

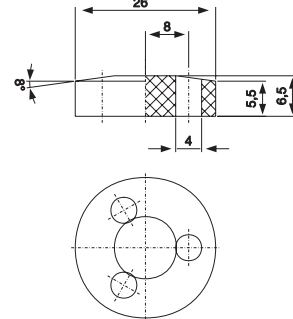
Distance Plate AH-3
 Use optional distance plate AH-3 to keep long probes from touching.

Counter Nut GM-1
 Use optional counter nut GM-1 for tanks that cannot be threaded.

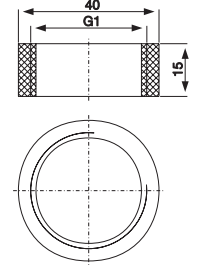
Compact support KH-3



Optional Distance plate AH-3



Optional Counter nut GM-1
 G1 = 1 in (25.4 mm)



*Dimensions in Millimeters

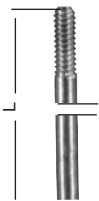
Type	Description	Part Number	Pack. unit (pieces)	Weight 1 piece kg/oz
CM-KH-3	Compact support for 3 bar electrodes	1SVR 450 056 R 6000	1	0.085/3.000
CM-AH-3	Distance plate for 3 bar electrodes	1SVR 450 056 R 7000	1	0.004/0.141
CM-GM-1	Counter nut for 1" thread	1SVR 450 056 R 8000	1	0.010/0.247

Bar Electrodes

Description

Thread M4 for use with KH-3 probe holder
 Material: stainless steel 304, high-grade steel 14301

Length mm	Part Number	Pack. unit (pieces)	Weight 1 pc. kg/oz
300	1SVR 450 056 R 0000	1	0.030/1.058
600	1SVR 450 056 R 0100	1	0.060/2.116
1000	1SVR 450 056 R 0200	1	0.100/3.527



LLC02B01 09.07.04

