

# IEC 60320 Power Inlets & Connectors



10-15A/65°C 10-15A/120°C 16-20A/65°C

The IEC 60320 power inlet is the most commonly used means of connecting a detachable cordset to electrical or electronic equipment that consumes up to 16A at 220-240V (20A/120V). (European voltages and frequencies are typically 230VAC, 50Hz). IEC 60320 inlets are used in Europe, North America, and throughout the industrialized world. An IEC 60320 power inlet allows the

manufacturer to attach the correct international cordset just before shipment (see Sec. 6000 for cordsets).

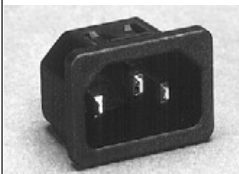
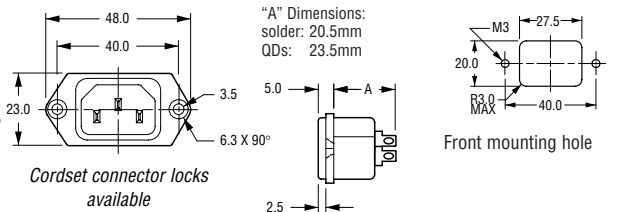
Modules that combine an IEC 60320 power inlet with other functions and accessory power connections based on IEC 60320 are shown on the following pages. All items normally available from stock. No minimum order. See Sec. 6000 for cordsets with molded on connectors.

## IEC 60320 inlets & connector — 10A international (15A North America)



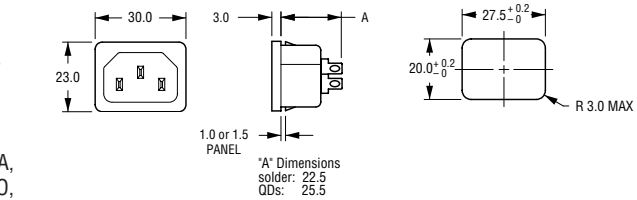
C14 Screw mount, 65°C

**8301211:** with solder tabs  
**8301213:** with 6.3 mm solder/QDs  
 Screw mount. Tin-plated brass contacts;  
 UL 94V-0 polyamide thermoplastic insulator.  
**Approvals:** VDE, DEMKO, IMQ, KEMA, NEMKO,  
 OVE, SEMKO, FIMKO, (10A/250VAC);  
 UL recog. & CSA (15A/250VAC).



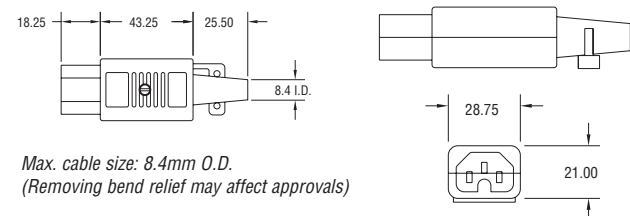
C14 Snap-in mount, 65°C

**8301311:** 1.5mm panel, 3.5mm solder tabs  
**8301312:** 1.5mm panel, 6.3mm sold./QDs  
**83013111:** 1.0mm panel, 3.5mm solder tabs  
**83013121:** 1.0mm panel, 6.3mm sold./QDs  
 Push-in mount. Tin-plated brass contacts;  
 UL 94V-0 polyamide thermoplastic insulator.  
**Approvals:** VDE, DEMKO, IMQ, KEMA,  
 NEMKO, OVE, SEMKO, SEV, FIMKO,  
 (10A/250VAC); UL recog. & CSA (15A/250VAC).



C15 Cable-mount, 120°C

**83012700:** Hot rewirable IEC 60320 power cord connector for use at 120°C. Mates with both 10A/65°C (above) and 10A/120°C standard C16 inlets (not shown). Screw-type connections. Nickel-plated brass contacts; Nylon 6 Grilon A28V0 insulator.  
**Approvals:** VDE (10A/250VAC), CSA cert. & UL recog. (15A/250VAC)  
 Assembly services available.

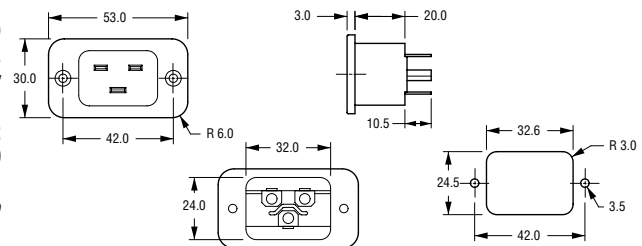


## IEC 60320 inlet & connector — 16A international (20A North America)



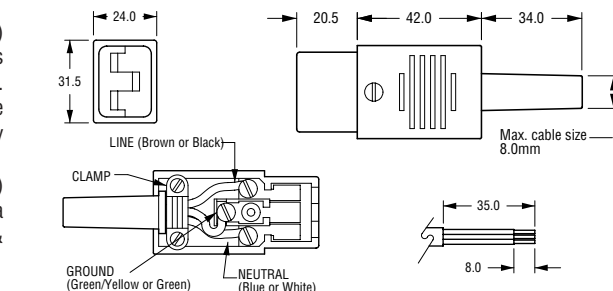
C20 Screw-mount inlet, 65°C

**83030400:** IEC 60320 C20 power inlet (65°C) for detachable connections at higher ratings. UL 94V-0 PBT with glass filter. Copper alloy contacts. 6.3mm QD tabs.  
**Approvals:** UL recog. & CSA cert. (20/250VAC); VDE, SEV, DEMKO, SEMKO, NEMKO, FIMKO (16A/250VAC).  
 Accessory outlet and receptacle also available—see following pages.



C19 Cable-mount connector; 65°C

**83011380:** Rewirable IEC 60320 (C19) power connector for detachable connections at higher ratings. UL 94V-0 nylon insulator. Nickel-plated brass contacts. Screw-type connections. Made-to-order cable assembly services available. UR, CSA.  
**Approvals:** UL recog. & CSA cert. (21A/250VAC)  
**NOTE: 83011430** (not pictured here) is a compact version of part above; UL, CSA, & VDE approvals.



Dimensions are in mm

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# International Power Entry Modules



65°C

Power modules aid in configuring a product with the correct cordset, voltage, and fusing for international or North American markets. They can also save on space, assembly costs, and components management because several functions are combined in one unit. A power module can also make a product

safer. It is impossible to access the fuseholder or voltage selector while the power entry connector is engaged. The equipment user must then remove the power cord before changing a fuse or adjusting a voltage selector. See EEM Sec. 4300 for fuses. All items normally available from stock. No minimum order.



C14 Screw-mount, 65°C

Snap-in mount models and twin fused models are also available.

## 2-Function Module

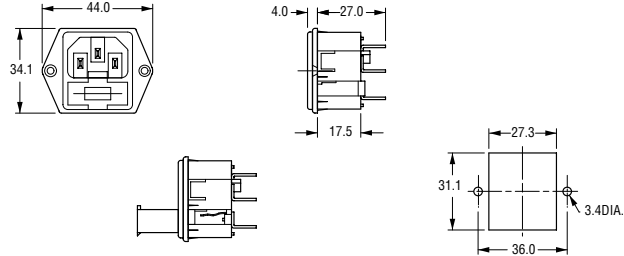
**83110111:** (shown at left): screw mount; solder tabs

**83110131:** screw-mount: 6.3mm QDs  
Combines 1) IEC 60320 inlet 2) carrier for 5x20mm fuse; order fuse separately. Nickel-plated brass contacts; UL 94V-0 polyamide-type thermoplastic insulator.

**Approvals:** VDE, SEMKO, UL recog., CSA cert., at 10A/250VAC

**83110170:** twin fused screw mount: UL, CSA cert., & VDE at 10A/250VAC

**83110180:** twin fused push-in mount: UL, CSA cert., & VDE at 10A/250VAC

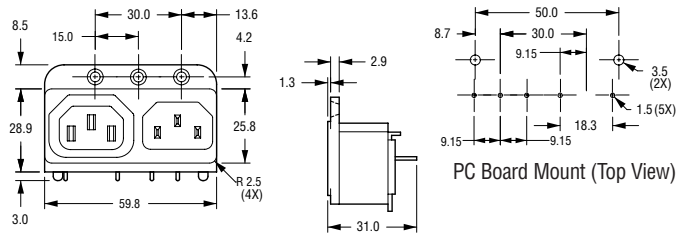


Screw-mount/PC Board mount, 65°C

## 2-Function Module

**83511400:** Printed circuit-board mounting power entry module combines: 1) IEC 60320 inlet; 2) accessory outlet. Connections made by solder pins. Screw mount. Nickel-plated brass contacts; UL 94V-0 polyamide-type thermoplastic insulator.

**Approvals:** UL recog., at 10A/250VAC, CSA cert. at 15/250VAC



Screw-mount, 65°C

## 3-Function Module

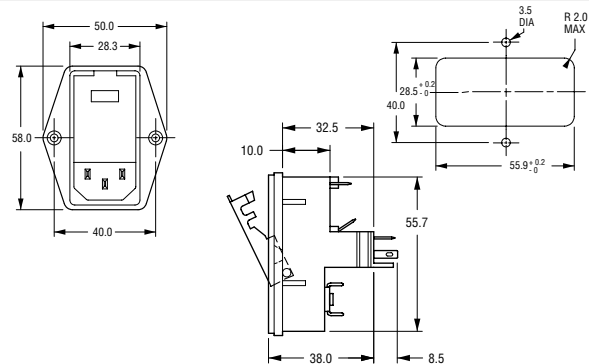
**83110011:** Power entry module combines: 1) IEC 60320 inlet; 2) fusing for international 5 x 20mm or North American ¼" x 1¼" fuse; 3) 4-position voltage selector (100, 120, 220 & 240VAC). Connections made via solder tabs. Screw mount. Nickel-plated brass contacts; UL 94V-0 polyamide-type thermoplastic insulator.

**Approvals:** UL recog., CSA cert. at 6A/250VAC; VDE at 10A/250VAC

**Order fuse carrier separately:**

83110050: for int'l. 5x20mm fuse

83110040: for N.A. ¼" x 1¼" fuse

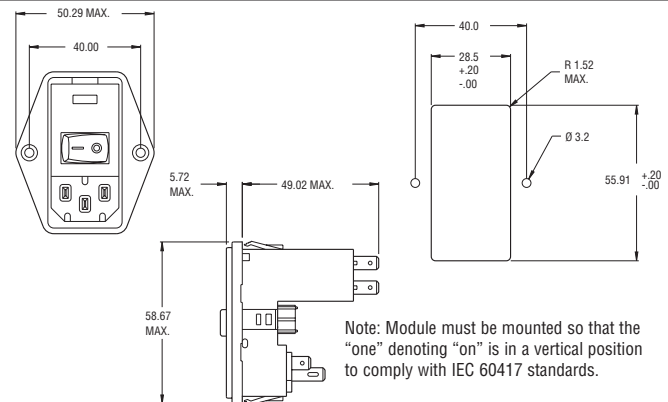


Screw-mount

## 3-Function Module

**83543050:** Panel-mount power entry module combines: 1) IEC 60320 inlet; 2) Fuse carrier for int'l. 5 x 20mm fuse or North American ¼" x 1¼" fuse; 3) double-pole off/on rocker switch. Connections made 4.8mm solder/QDs. Screw mount. Various copper alloy contacts; body is UL 94V-0 PBT.

**Approvals:** UL recog., CSA cert. at 10A/250VAC; VDE at 10A/250VAC



Note: Module must be mounted so that the "one" denoting "on" is in a vertical position to comply with IEC 60417 standards.

Dimensions are in mm

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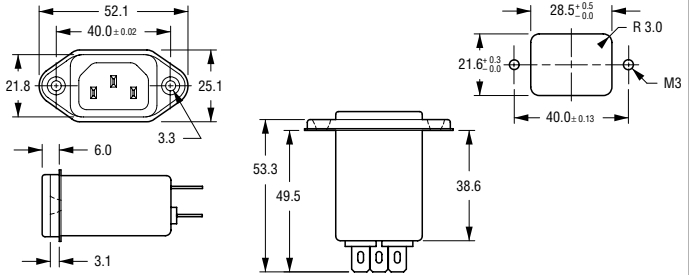
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**International Power Entry Modules, continued** Normally available from stock • No minimum order



**2-Function Module**

**83510312:** 1A  
**83510352:** 3A  
**83510412:** 6A  
**83510442:** 10A  
 Power entry module combines: 1) IEC 60320 inlet; 2) RFI filter. Connections made by 6.3mm solder/QDs.  
**Approvals:** UL recog., CSA cert., VDE



C14 Screw-mount, 65°C  
 Block style filters also available

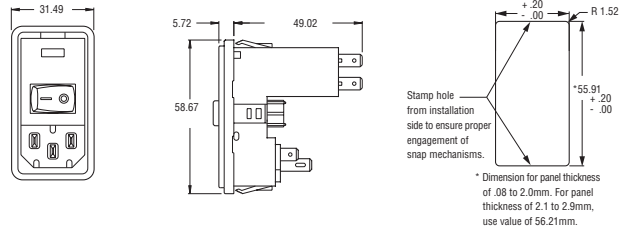
**INSERTION LOSS DATA FOR 2 FUNCTION MODULE ABOVE**

Part Number	Cur. Rat. (115/250 VAC)	C1 Capacitor	C2 Capacitors	Inductor	Min. Common Mode Insertion Loss (L-G) (dB in 50Ω system) Frequency—MHz								Min. Differential Mode Insertion Loss (L-L) (dB in 50Ω system) Frequency—MHz							
					.05	.10	.15	.50	1.0	5.0	10	30	.05	.10	.15	.50	1.0	5.0	10	30
83510312	1A	0.033 μF (X2)	2 X 2200 pF (Y)	2 X 5 mH	18	25	28	40	45	45	45	45	0	2	10	20	40	42	40	
83510352	3A	0.033 μF (X2)	2 X 2200 pF (Y)	2 X 1.8 mH	10	15	22	30	35	45	45	45	0	2	5	14	38	40	40	
83510412	6A	0.033 μF (X2)	2 X 2200 pF (Y)	2 X 0.6 mH	4	8	12	20	25	40	45	45	0	2	5	10	35	38	40	
83510442	10A	0.033 μF (X2)	2 X 2200 pF (Y)	2 X 0.18 mH	0	2	4	10	15	30	38	45	0	2	5	10	25	35	40	



**3-Function Module**

**83543000:** Power entry module combines: 1) IEC 60320 inlet; 2) Fuse carrier for int'l. 5 x 20mm fuse or North American ¼" x 1¼" fuse; 3) double-pole off/on rocker switch. Snap-in mounting for panel thickness of 0.8 to 2.0mm. Connections made via 4.8 mm QDs.  
**Approvals:** UL recog. and CSA certified—10A/250VAC; VDE—10A/250VAC

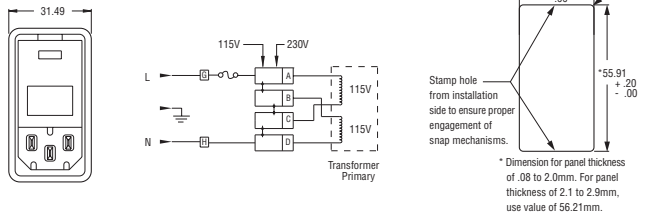


Snap-in mount, no filter



**3-Function Module**

**83543020:** Power entry module combines: 1) IEC 60320 inlet; 2) Fuse carrier for int'l. 5 x 20mm fuse or North American ¼" x 1¼" fuse; 3) and 2-position voltage selector: 115VAC & 230 VAC Push-in mounting for panel thickness of 0.8 to 2.0mm. Connections are made via 4.8mm QDs. Order fuses separately (see Section 4300).  
**Approvals:** VDE at 10A/250, UL recog., CSA cert. at 10A/250VAC



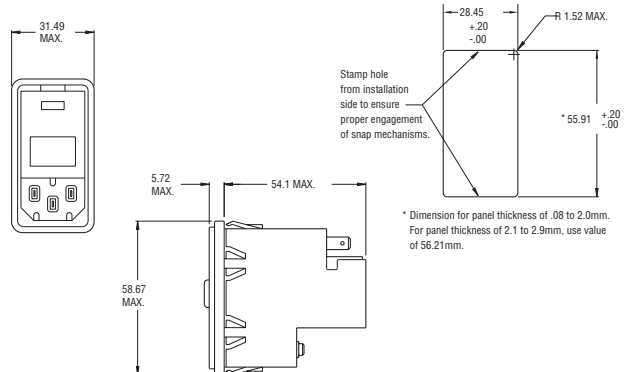
Snap-in mount, no filter

**Note:** Voltage selector is not designed to be switched while power is applied; selection must be made before connecting the unit to the power mains.



**4-Function Module**

**83544010:** Power entry module combines: 1) IEC 60320 inlet; 2) Fuse carrier for int'l. 5 x 20mm fuse or North American ¼" x 1¼" fuse; 3) 2-position voltage selector: 115VAC or 230VAC 4) 10A RFI/EMI filter with shield; Push-in mounting for panel thickness of 0.8 to 2.0mm. Connections are made via 4.8mm QDs. Order fuses separately (see Section 4300).  
**Approvals:** VDE, UL recog., CSA cert. at 10A/250VAC



Snap-in mount, with filter

**Note:** Voltage selector is not designed to be switched while power is applied; selection must be made before connecting the unit to the power mains.

Dimensions are in mm

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**International Power Entry Modules, continued** *Normally available from stock • No minimum order*



C14 Screw-mount

**5-Function Module**

**83545000:** Power entry module combines: 1) IEC 60320 inlet; 2) Fuse carrier for 5x20mm or North American 1/4" x 1 1/4" fuse; 3) double-pole on/off rocker switch; 4) 2-position voltage selector :115VAC & 230VAC; 5) 10A RFI/EMI filter with shield; Screw-mount. Voltage selector, filter, and connections are internally wired; make connections via 4.8mm QDs.

**Approvals:** UL recog. & VDE at 10A/250VAC; CSA cert. at 10A/250VAC

**SPECIFICATIONS:**

**Body:** UL 94V-0 PBT

**Max. leakage current:**

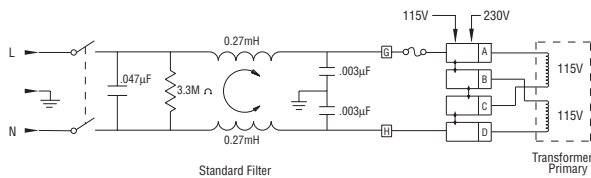
L to G @ 120VAC, 60Hz: 0.25mA  
L to G @ 250VAC, 50Hz: 0.50mA

**Dielectric Strength (one minute):**

L to G: 1500VAC  
L to L: 1450VDC

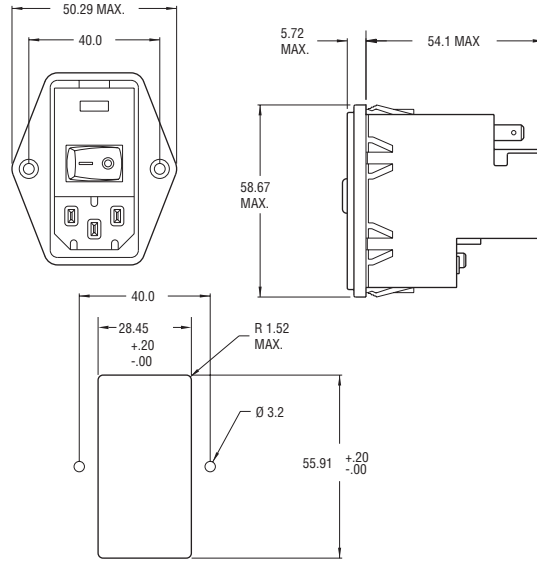
**Operating Frequency:** 50-60Hz

**Rating:** 120/250VAC, -10°C to 40°C



**Filter Performance:**

Minimum insertion loss in dB (50 ohm system)	Frequency—MHz							
	.10	.15	.50	1.0	3.0	5.0	10	30
Common mode, L-G	3	5	10	13	23	27	35	27
Differential mode, L-L	2	4	12	15	22	42	55	45



C14 Screw-mount

**See model 83545000 above for dimensional drawings**

**5-Function Medical Modules—with low leakage RFI filter**



These power entry modules combine the features of part 83545000 shown above, but utilize a low-leakage filter rated at 10A for use in medical applications. Two models are available to accommodate the different fusing requirements for international and North American medical applications:

**83545020:** For medical applications requiring two 5x20mm fuses (to fuse both line and neutral where the connections are non-polarized).

**Approvals:** VDE at 10A/250VAC

**83545030:** For UR & CSA 120/250VAC medical applications which requires the use of only one 1/4" x 1 1/4" fuse.

**Approvals:** UL recog., CSA cert. at 10A/120/250VAC  
VDE at 10A/120-250VAC

**SPECIFICATIONS:**

**Body:** UL 94V-0 PBT

**Max. leakage current:**

Line to ground @ 120VAC, 60Hz: 2.0 µA  
Line to ground @ 250VAC, 50Hz: 5.0 µA  
Line to ground: 1500 VAC  
Line to line: 1450 VDC

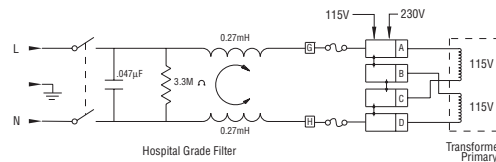
**Operating Frequency:** 50-60Hz

**Rating:** 120/250VAC, -10°C to 40°C

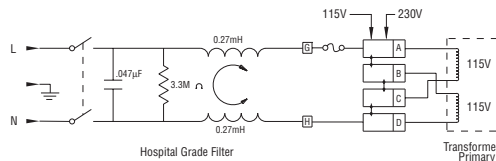
**Filter Performance:**

Minimum insertion loss in dB (50 ohm system)	Frequency—MHz							
	.10	.15	.50	1.0	3.0	5.0	10	30
Common mode, L-G	3	5	8	10	12	11	11	10
Differential mode, L-L	2	4	12	16	26	33	40	32

**83545020 schematics**



**83545030 schematics**



Dimensions are in mm

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# Accessory Power Outlets & Plug Connectors

Accessory power connections are based on IEC 60320. For multiple accessory connections, see sec. 4050 Accessory Power Strips and Jumper Cordsets.

All items normally available from stock. No minimum order. We offer in-house, made-to-order cord assembly services; contact us for a quotation.

## Accessory Power Outlets

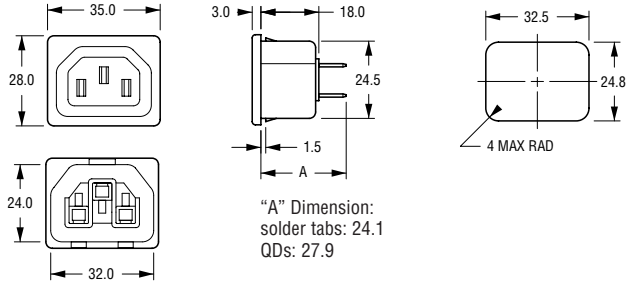
Normally available from stock • No minimum order



Sheet F Snap-in mount outlet, 65°C

**8301611:** with solder tabs  
**8301612:** with 6.3 solder/QDs  
 Accessory power outlet in two contact styles. Push-in mounting for 1.5mm panel. Insulators molded from UL 94V-0 polyamide-type thermoplastic. 65°C. Nickel-plated brass contacts.  
**Approvals:** VDE, IMQ, SEV, FIMKO, OVE, SEMKO, NEMKO, KEMA at 10A/250VAC; UL recognized, CSA certified at 15A/250VAC.

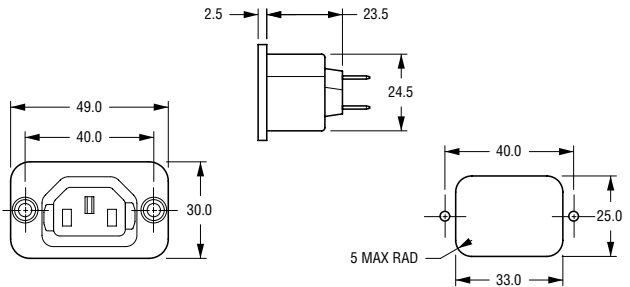
Screw mount models also available.



Screw-mount outlet

**Note: line & neutral are shuttered**

**83011220:** with 6.3 solder/QDs  
 Accessory power outlet. Special safety feature: line & neutral contacts are shuttered to prevent contact with object other than mating plug. Insulators molded from UL 94V-0 polyamide-type thermoplastic. 65°C. Tin-plated brass contacts.  
**Approvals:** VDE, cURus, at 10A/250VAC. Push-in mount models also available.



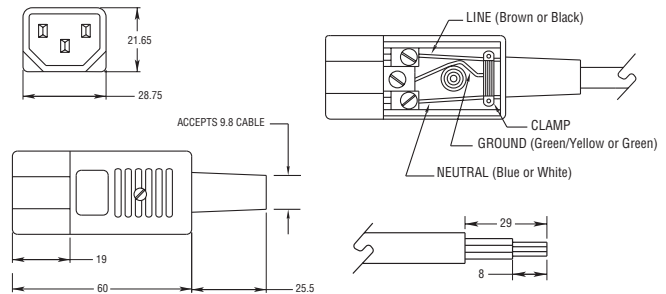
## Accessory Power Plug Connectors

Made-to-order Assembly Services Available



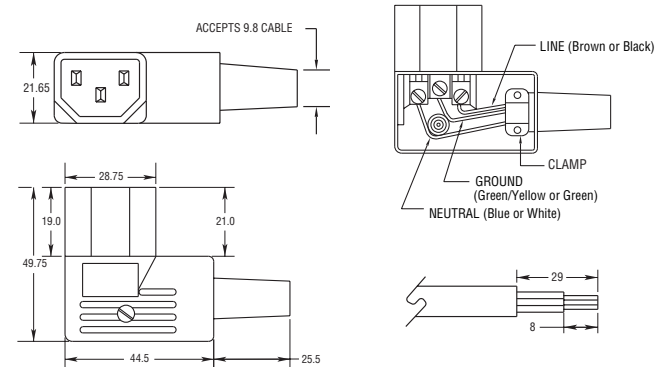
Cable-mount-straight entry

**83011060:** Cable-mount accessory power connector. Insulator molded from UL 94V-0 Noryl VO 150B. 65°C. Nickel-plated brass contacts. Screw-type connections.  
**Approvals:** UL recog. and CSA at 15/250VAC, VDE at 10/250VAC.



Cable-mount-angled entry

**83011070:** Angled entry cable-mount accessory power connector. Insulator molded from UL94V-0 Noryl VO 150B. 65°C. Nickel-plated brass contacts. Screw-type connections.  
**Approvals:** UL recog. and CSA at 15/250VAC, VDE at 10/250VAC.



Dimensions are in mm

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# International Socket Strips

All items normally available from stock.  
No minimum order.

For power distribution systems based on specific socket patterns. See "Universal" Power Distribution System in Section 4050 if you are

designing a product for both international and North American markets.

## Continental Europe (Schuko)\*



**Continental European socket strip with 5, 9 or 13 CEE 7 sockets** (see below). Cable is 2.5m long, terminated with CEE 7/7 plug. Metal casing. Color: Orange. Current Rating: 16A/250VAC. Approval: VDE.

Part No.	No. of skts.	Dimensions (mm)
85023050	5	52W x 38H x 566L*
85023090	9	52W x 38H x 966L*
85023130	13	52W x 38H x 1365L*

\*length includes mounting flange



### With lighted rocker switch

**Continental European socket strip with rocker switch and 4, 8 or 12 CEE 7 sockets** (see below). Cable is 2.5m long, terminated with CEE 7/7 plug. Metal casing. Color: Orange. Current Rating: 16A/250VAC. Approval: VDE.

Part No.	No. of skts.	Dimensions (mm)
85003040	4	52W x 38H x 546L*
85003080	8	52W x 38H x 945L*
85003120	12	52W x 38H x 1345L*

\* length includes mounting flanges



### With circuit breaker

**Continental European socket strip with circuit breaker and 5 CEE 7 sockets.** Cable is 2.5m long, terminated with CEE 7/7 plug. Metal casing. Color: White. Current Rating: 16A/250VAC. Approval: VDE.

Part No.	No. of skts.	Dimensions (mm)
85013041	4	44W x 45H x 483L*

\*length includes mounting flanges

**85032052: French/Belgian socket strip.** (with male grounding pin in socket) also available. Five sockets. Cable is 2.5m long, terminated with CEE 7/7 plug. Metal casing. Color: White. Current Rating: 16A/250VAC. Approval: (none)

\* Continental European CEE 7 sockets are used in Germany, Austria, Finland, the Netherlands, Norway, Sweden and Russia.

## Australia/New Zealand



**Australian socket strip with six AS 3112 sockets and circuit breaker.** Used in Australia, New Zealand, Fiji, Papua New Guinea. Cable is 1m long, terminated with an Australian plug. Current rating: 10A/250VAC. Plastic casing. Color: White. Approval: Department of Fair Trading.

Part No.	No. of skts.	Dimensions (mm)
85010050	6	47.7W x 26.8H x 315L

## United Kingdom

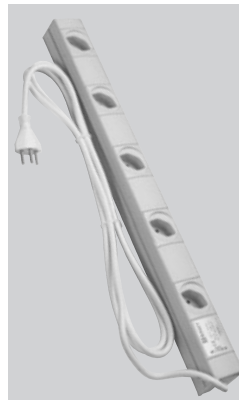


**British socket strip with five BS 1363 sockets and fuse.** Used in the U.K. & Ireland. Cable is 2.8m long, terminated with a BS 1363 plug. Current rating: 13A/250VAC. Metal casing. Color: tan.

Part No.	No. of skts.	Dimensions (mm)
85031053	5	55.3W x 46.3H x 420L*

\* length includes mounting flanges

## Switzerland



**Swiss socket strip with five SEV 1011 sockets.** Cable is 2.5m long, terminated with a SEV 1011 plug. Current rating: 10A/250VAC. Metal casing. Color: gray.

Part No.	# of skts.	Dimensions (mm)
85030051	5	51W x 39.5H x 565L*

\* length includes mounting flanges

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