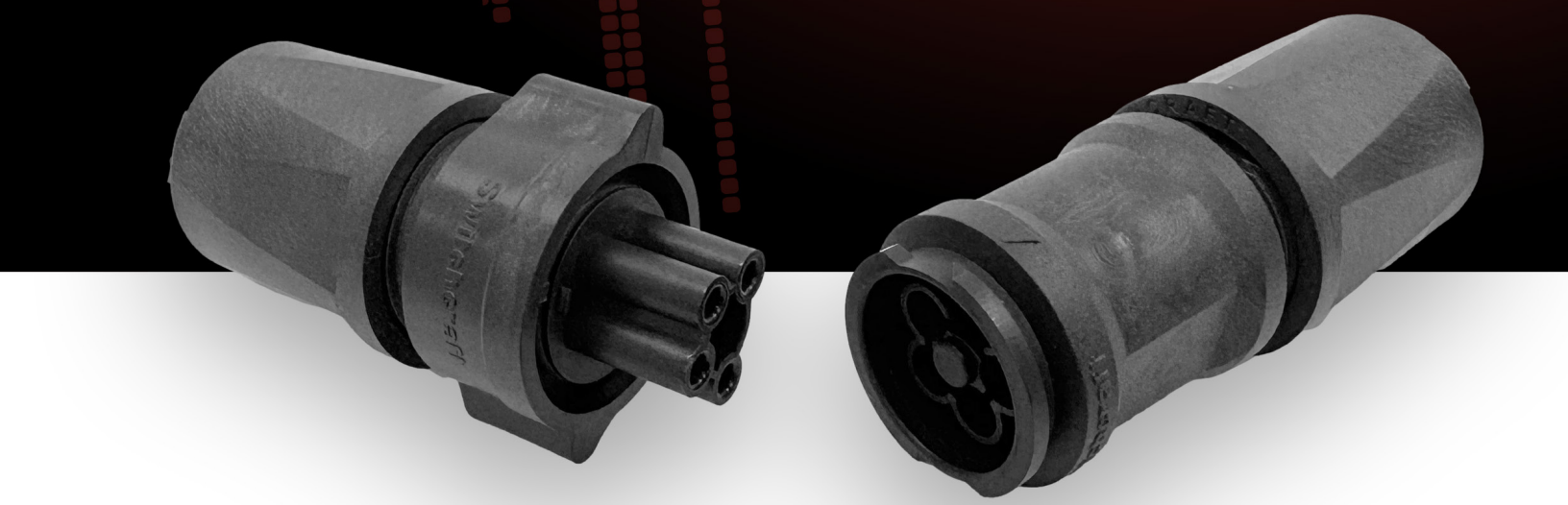
NEW PRODUCT BULLETIN 707B

EP7 SERIES
30 AMP POWER CONNECTORS



Switchcraft®
CONXALL®

HARSH ENVIRONMENT CONNECTIVITY SOLUTIONS

EP7 30 Amp Power Connectors

NPB 707B

Connectors, cable-to-cable or panel mount receptacles, and custom overmolded cables available with up to 5 male or female contacts



Rugged housing using high-temp, UL f1 rated materials

Insta-Click™ spring loaded latching mechanism locks automatically

Easy field installation with screw terminal contacts, accepting up to 10awg wires



NEW! Optional leading "make first" ground contact, available for all male connector types

NEW PRODUCT

The new EP7 series is a new line of connectors designed specifically for higher current applications. Large contacts with screw terminals are ideal for heavy-duty wire up to 10awg, while a unique insert design protects the user while maximizing the isolation of each pole. A large backshell with rugged chuck-style strain relief accommodates a wide range of cable diameters and the Insta-Click positive lock makes connecting and disconnecting as simple as possible. Custom overmolded cable assemblies are also available. NEW ADDITION: An optional leading ground contact for male connectors

IP68 RATED WATER RESISTANCE

The EP7 series is fully sealed to meet both IP68 and IP69K for harsh environments

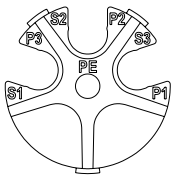
30 AMP CURRENT RATING

A special high-PBT material provides excellent UV resistance for outdoor use and lighting applications

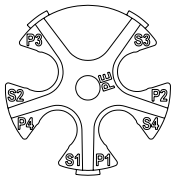
MADE IN USA

Made in USA to the high standards that have made Switchcraft the leading name in power connectivity

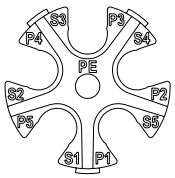
CONTACT LAYOUTS (REAR/WIRING SIDE SHOWN)



3-POLE

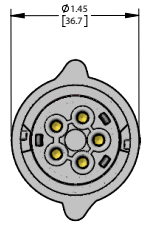


4-POLE

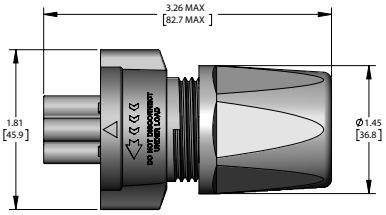


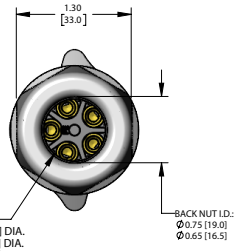
5-POLE

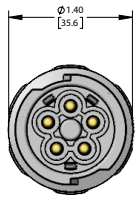
DIMENSIONS



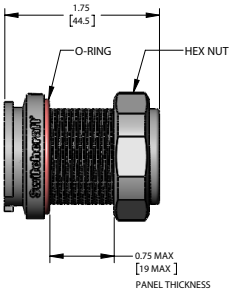
EP7C5F10C SHOWN HERE

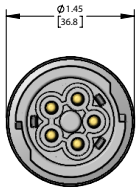




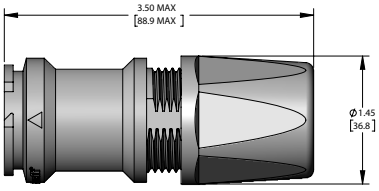


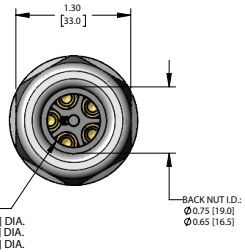
EP7P5M10 SHOWN HERE

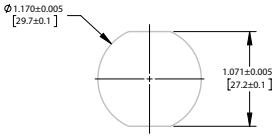




EP7L5M10C SHOWN HERE







RECOMMENTED PANEL CUT-OUT

ORDERING CODE

EP7				10		

EP7 SERIES

C - CABLE-END CONNECTOR
P - PANEL MOUNT CONNECTOR
L - CABLE-TO-CABLE CONNECTOR

OF CONTACTS:
3-5 #10

GENDER:
M - PIN (MALE)
F - SOCKET (FEMALE)

CONTACT SIZE - (WIRE SIZES):
10 - (10, 12, 14 AWG)

CLAMP SET PER CABLE O.D. RANGE:
A - 0.375 - 0.500 [9.5 - 12.7]
B - 0.500 - 0.600 [12.7 - 15.2]
C - 0.600 - 0.700 [15.2 - 17.8]
[LEAVE BLANK FOR PANEL]

G - LEADING GROUND PIN
(MALE CONTACTS ONLY)
[LEAVE BLANK FOR STANDARD|

SPECIFICATIONS

MECHANICAL:

Mating / Locking Type:	Spring activated positive lock
Life:	400 insertion/ withdrawal cycles minimum
Operating Forces:	10lb [44.5 N] maximum insertion or withdrawal
Vibration:	Mil-Std 202G method 201A
Panel Hex Nut Torque:	12 in-lb [1.36 Nm] maximum
Cable Securing System:	Threaded-on clamp

ELECTRICAL:

Voltage Rating:	600 V AC/DC (tested per UL2238
Minimum Test Voltage:	2200 V rms
Current Rating:	30A at 85°C max operating termperature 25A at 100° C max operating temperature 20A at 110° C max operating temperature (based on 10awg wire, see drawing for details)
Insulation Resistance:	1000 MΩ minimum
Contact Resistance:	10 mΩ typical

ENVIRONMENTAL:

Temperature Limits:	-40ºC to +135ºC (-40ºF to +275°F)
Operating Temperature:	Refer to drawing for detailed information
Moisture Resistance:	Mil-Std 202G method 106G
Insulation Resistance:	Mil-Std 202G method 302 condition B
Thermal Shock:	Mil-Std 202G method 107G
Salt Atmosphere :	Mil-Std 202G method 101E condition A
Ingress Protection :	IP66, IP67, IP68 per IEC60529 IP69K per DIN 40050-9, NEMA 250 6P

MATERIAL:

Outer Shell (Insulator):	Thermoplastic (PA)
Hardware:	Thermoplastic (PA)
Seal Grommets:	Thermoplastic Elastomer (TPV)
Seal O-rings:	Thermoplastic Elastomer (VMQ)
Electrical Contacts:	Copper Alloy, gold plated
Spring, Terminal Screw:	Stainless Steel