

## MOLDED CABLE ASSEMBLIES WITH DIN PLUGS

### STYLES RA300 and ST300

#### APPLICATIONS

- Computer
- Data Communications
- Instrumentation
- Medical Systems
- Process Controls
- MIDI (Musical Instrument Digital Interface)

#### FEATURES

- Long life
- 7 different pin configurations: versatile circuitry
- Fully molded plugs sealed against contamination (moisture, dust, dirt)
- Fully shielded: plugs with interference protection/ common ground-shield
- Strain relief: protects internal wire connections
- Flex relief: molded integral with handle for extra protection. No exit stress failures
- Locking: 30° twist locking for anti-vibration protection and ease of engagement
- Straight and coil cords: stock and custom styles, colors, lengths
- Shielded or unshielded cables: stock and custom styles, colors, lengths
- Molded through-panel cable relief: extra cable protection
- Custom wiring/ keying: gives extra choice in mounting and circuit selection
- Custom contact plating: precious and other metals
- Custom logo: your identification on molded plugs
- 100% tested for continuity, shorts, appearance, voltage breakdown (250 or 500 V)

#### COMPLETE SHIELDING SYSTEMS

Switchcraft also offers shielded DIN receptacles for use with shielded molded cable assemblies. Together they provide a valuable design tool to suppress EMI interference to permit you to meet strict requirements of FCC Docket 20780.

#### ORDERING

1. Order by part number from guide on page 242.
3. For special order items, contact Switchcraft with details.

**SPECIFYING NOTE:** See Connector Section of Switchcraft's Engineering Design Guide for mating receptacles.

**Style ST307**  
Termination Code: 307

**Style ST324**  
Termination Code: 324

**Style RA374**  
Termination Code: 374

**Style RA356**  
Termination Code: 356

Switchcraft DIN molded cable assemblies meet increased demand for modern, field-tested connections for a wide range of electrical/electronic applications. Connectors are DIN (Deutsch Industrie Norm) circular type, male or female (locking or non-locking) with 3 to 8 pins/contacts. Units are molded and protected with a rugged handle, and are fully shielded and equipped with advance design cable relief. Switchcraft cable assemblies and mating receptacles adhere to strict requirements of FCC Docket 20780 and offer fully shielded links for data and instrumentation applications of all kinds.

#### SHIELDING EFFECTIVENESS

Effectiveness of shielding is frequency-dependent; as frequency increases, more shielding is required to maintain comparable shielding effectiveness. The chart below delineates shielding effectiveness with molded cable assemblies with 100% foil shield cables and shielded DIN connectors.

Frequency Range MHz	Shielding Effectiveness, dB
30-500	-30
60-400	-20
500-800	-10

DIMENSIONS ARE FOR REFERENCE ONLY  $\frac{\text{Inch}}{(\text{mm})}$

**NOTE:** Contact your Switchcraft Representative for price and delivery.

### MOLDED CABLE ASSEMBLIES WITH DIN PLUGS (continued)

#### STYLES RA300 and ST300

#### SPECIFICATIONS

##### ELECTRICAL

**Contact Resistance:** Cord Plugs and Receptacles .010 ohms, contact spring/pin; .030 ohms, ground clip/shell. Control and Switching Receptacles: .015 ohms, contact spring/pin; .020 ohms, switch contacts.

**Dielectric Withstanding Voltage:** 500 V (rms).

**Leakage Resistance:**  $10^9$  M $\Omega$

##### MECHANICAL

**Life:** 5000 cycles

Insertion/Withdrawal Forces:		
Number of Contacts	Insertion Force pound/N	Withdrawal Force pound/N
2	3.6/(16)	.45—2.7/ (2—12)
3	5.4/(24)	.67—4.1/ (3—18)
4	7.2/(32)	.90—5.4/ (4—24)
5	9.0/(40)	1.24—6.8/ (5.5—30)
6	10.8/(48)	1.46—8.1/ (6.5—36)
7	12.6/(56)	1.68—9.5/ (7.5—42)
8	14.4/(64)	1.90—10.8/ (8.5—48)

##### PLUG MATERIALS

**Pin Contacts:** Silver-plated, copper alloy.

**Insulating Washer:** Thermoplastic.

**Locking Plug Housing:** Nickel-plated, die-cast zinc alloy.

**Other Housings:** Plated steel.

**Molded Handle:** Flexible thermoplastic. Strain relief matte finish.

**NOTE:** All connectors meet DIN specifications. Din specification numbers (except for 4-pin, 5-pin 240°) will be furnished on request.

#### ORDERING

1. See table below for termination descriptions. Termination code is the same number as the plug style (e.g. termination code for a ST305 is 305).

2. See page 242 for ordering guide.

#### PART NUMBERS MOLDED CABLE ASSEMBLIES

Part Number	Description	Term. A	Term. B
305KD084184	Black coil cord. 15 inch (381 mm) retracted; 78.74 inch (2 m) extended. 5 pin male with other end stripped and tinned on cable number W-1301-2.	ST305	—
305HJ084184	Black cable cord. 7 feet (2.13 m) inch length. 5 pin male with other end stripped and tinned on cable number W-1279-2.	ST305	—
306HK042306	Black cable cord. 39.37 inch (1 m) in length. 6 pin male to 6 pin male on cable number W-1289-2.	ST306	ST306
306HK084306	Black cable cord. 78.74 inch (2 m) in length. 6 pin male to 6 pin male on cable number W-1289-2.	ST306	ST306

Special order only; contact Switchcraft

#### FOIL SHIELD CABLES—STRAIGHT

Part Number	Color	Length, inch (mm)
W-1279-2	Black	Length must be specified.
W-1289-2	Black	

	Part Numbers-Male (pins)						
	3@180°	4@210°	5@180°	5@240°	6@240°	7@270°	8@270°
Pin Arrangements	B	D	F	E	G	H	N
Description							
Straight handle.	ST303	ST309	ST305	ST304	ST306	ST307	ST308
Straight handle. 30° twist lock ring fastening, mates with lock flange plugs and receptacles.	ST323	ST329	ST325	ST324	ST326	ST327	ST328
Right-angle handle.	RA353	RA359	RA355	RA354	RA356	RA357	RA358
Right-angle handle. 30° twist lock ring fastening, mates with lock flange plugs and receptacles.	RA373	RA379	RA375	RA374	RA376	RA377	RA378

1 See next page for Pin/Contact arrangements

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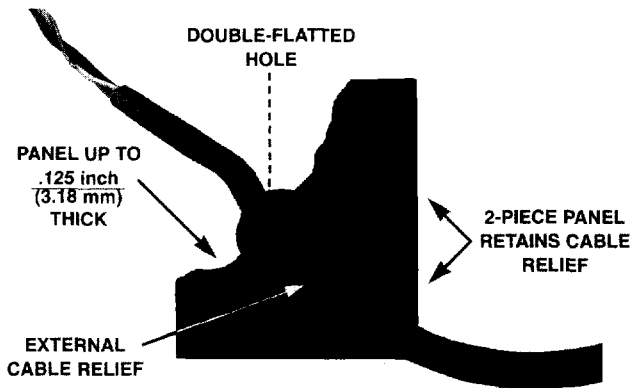
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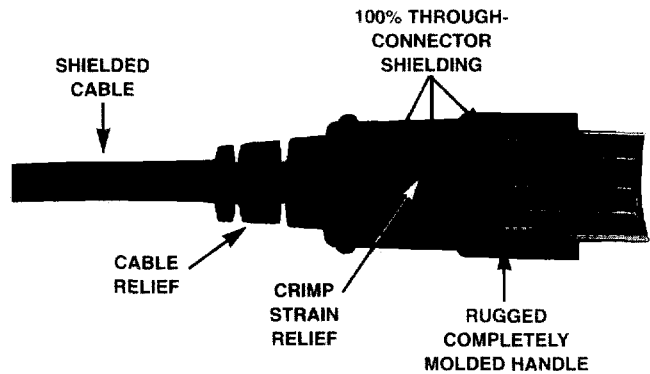
### MOLDED CABLE ASSEMBLIES WITH DIN PLUGS (continued)

#### STYLES RA300 AND ST300

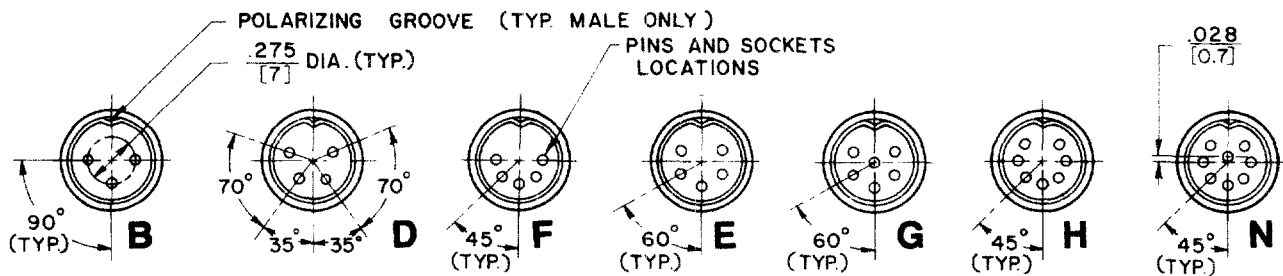
ST300



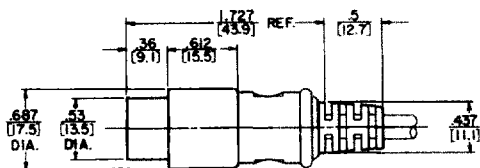
Cutaway View of Style ST303



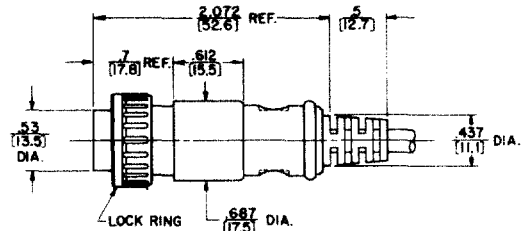
#### Pin/Contact Arrangements



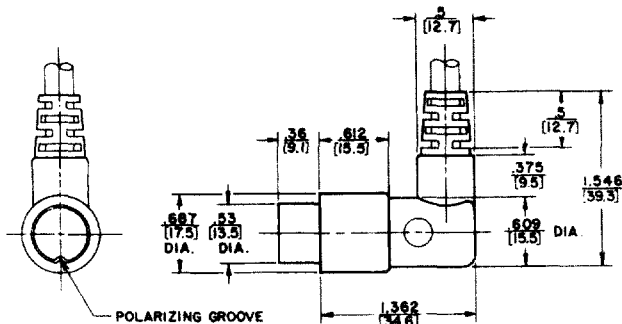
#### Styles ST303 to ST309



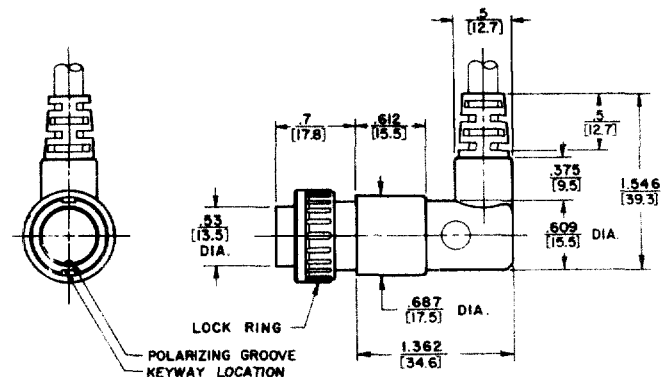
#### Styles ST323 to ST329



#### Styles RA353 to RA359



#### Styles RA373 to RA379



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