



Positronic Industries
connectpositronic.com

PROFESSIONAL QUALITY, MICROMINIATURE, FIXED CONTACT CIRCLE HEX CONNECTORS

Circle
Hex

**Size 22 Signal/Power
Contacts**

**High Performance
Construction**

**Polarization and
Locking Accessories**

U.L. Recognized
File #E49351



MGH Series connectors are microminiature, high reliability connectors. They are available with three contacts for providing polarization: two contacts at 0.030 inch [0.76 mm] diameter, and one contact at 0.040 inch [1.02 mm] diameter. The MGH Series is rated to three amperes per contact. Spacing between contacts is 0.102 inch [2.59 mm], and the face diameter of the connector is 0.312 inch [7.92 mm].

MGH Series connectors are ideally applied where limited space is a concern. MGH Series connectors can be

used as cable connectors, panel-mounted connectors, or probes. Constructed of high performance materials, MGH Series connectors are widely used in medical, industrial, military, and automotive applications.



For RoHS options
see page 14.

TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulator:	Glass-filled DAP per ASTM-D-5948, Type SDG-F. Green color is standard.
Fixed Contacts:	Copper alloy, gold flash over nickel.
Hoods:	Aluminum with yellow or black anodize.
Lock Rings and Lock Springs:	Copper alloy with zinc plate and chromate seal.

MECHANICAL CHARACTERISTICS:

Fixed Contacts:	
Male:	Two (2) Size 22: 0.030 inch [0.76 mm] diameter contacts, and one (1) Size 20: 0.040 inch [1.02mm] diameter contact.
Female:	Open entry.
Contact Retention in Insulator:	6 lbs. [26.5 N], minimum.
Contact Termination:	0.027 inch [0.69 mm] internal diameter on solder style contact for 24 AWG [0.25 mm ²] wire maximum
Locking Systems:	Friction, lock spring with lock ring.
Polarization:	0.040 inch [1.02 mm] diameter male contact in position "A".
Mechanical Operations:	250 operations per IEC 512-5.

ELECTRICAL CHARACTERISTICS:

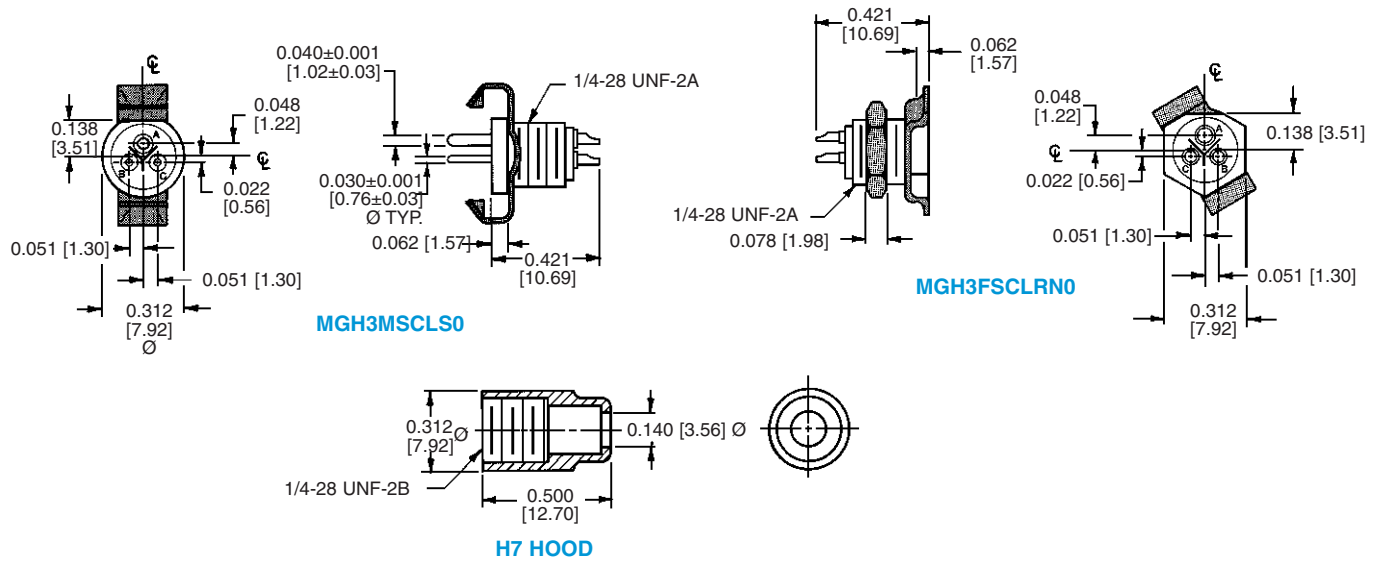
Contact Current Rating:	See temperature rise curve on page 13.
Initial Contact Resistance:	0.012 ohms, maximum.
Flash over Voltage:	1,500 VAC [rms].
Test Voltage:	1,000 VAC [rms].
Insulation Resistance:	5 G ohms, minimum.
Clearance and Creepage Distance:	0.021 inch [0.53 mm], minimum.
Working Voltage:	250 VAC [rms].

CLIMATIC CHARACTERISTICS:

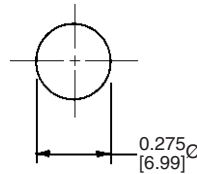
Temperature Range:	-55°C to +125°C.
Damp Heat, Steady State:	21 days.

MGH SERIES

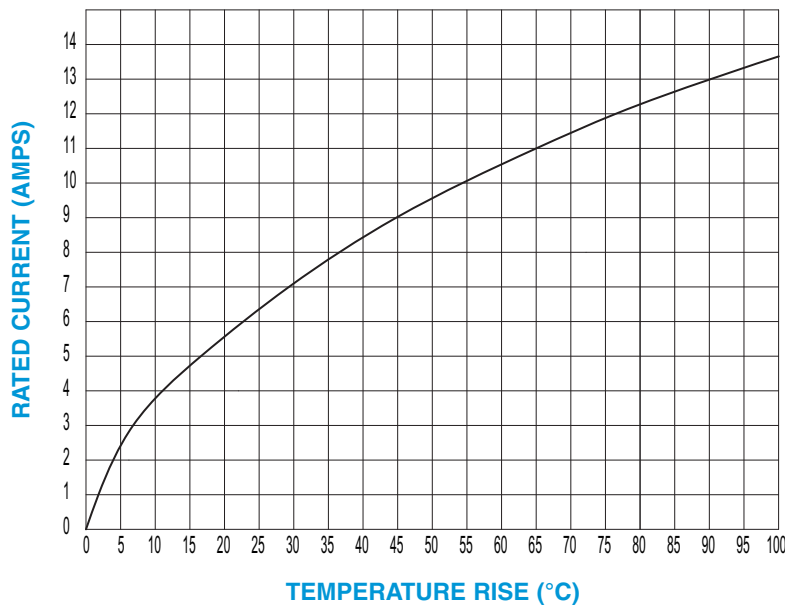
TYPICAL ASSEMBLIES



PANEL CUT-OUT DIMENSIONS



TEMPERATURE RISE CURVE



Temperature curve developed using MGH3FSC00 and MGH3MSC00 connectors terminated with 24 awg wire. All contacts under load. Tested in accordance with U.L. 1977.



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ORDERING INFORMATION - CODE NUMBERING SYSTEM

Specify Complete Connector By Selecting An Option From Step 1 Through 6

STEP	1	2	3	4	5	6	7	8
EXAMPLE	MGH	3	M	SC	LRN	0	/AA	

STEP 1 - BASIC SERIES

MGH Series

STEP 2 - CONNECTOR VARIANTS

3 - Contact Connector Variant

STEP 3 - CONNECTOR GENDER

M - Male Insulator
F - Female Insulator

STEP 4 - CONTACT TERMINATION TYPE

SC - Solder Cup.

STEP 5 - MOUNTING AND LOCKING ACCESSORIES

LR - Lock Ring.
LS - Lock Spring.
LRN - Lock Ring and Nut.
0 - If no mounting or locking accessories are required.

STEP 8 - SPECIAL OPTIONS

CONTACT TECHNICAL SALES
FOR SPECIAL OPTIONS

STEP 7 - ENVIRONMENTAL COMPLIANCE OPTIONS

/AA - Compliant per EU Directive
2002/95/EC (RoHS)

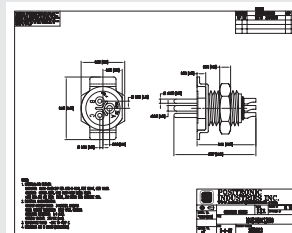
NOTE: If compliance to environmental legislation is not required, this step will not be used. Example: MGH3MSCLRNO



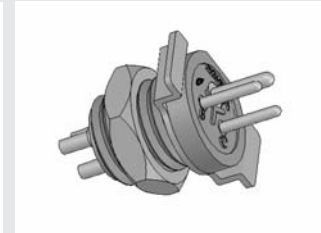
STEP 6 - CABLE ADAPTERS (HOODS)

H7 - Aluminum hood, yellow anodize.
H7B - Aluminum hood, black anodize.
0 - If no hoods are required.

NOTE: Once you have made a connector selection, contact Technical Sales if you would like to receive a drawing in DXF, PDF format or a 3-dimensional IGES, STEP, or SOLIDWORKS file.



SK Drawing



3-dimensional model