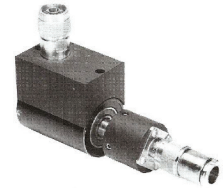


## Model MX • The ROTOCON Standard



### Model RXT-2

Based on the MX Series — fitted with coaxial connectors for transmission of very high frequency signals. No detectable noise even with instrument sensitivities below -1000db.



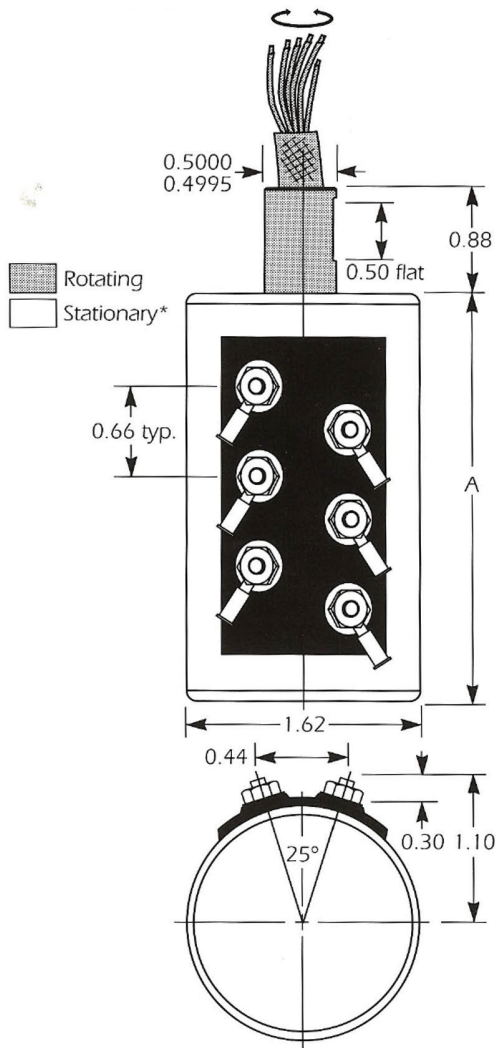
The ROTOCON Model MX is Meridian Laboratory's most popular rotary contact design. Covering a broad range of applications, the MX has proven itself in thousands of "real world" situations. From nano pampers to a full 30 amperes, the MX is used in applications ranging from low level instrumentation signals to high power pulses. The sealed mercury contacts have low resistance, low capacitance, and no electrical noise up to the rated speed of 5000 RPM. Tight environmental sealing is responsible for the MX's reputation for continuous operation with zero maintenance. Surprisingly small (1 5/8 inches in diameter, 1/2 inch shaft), the MX will typically fit easily into existing equipment designs. The efficient, arc-free contacts inherent in the ROTOCON design are completely unaffected by vibration and mounting orientation. Standard and customized MX's have solved the most difficult rotating contact problems in a wide range of industries.

## Specifications

Mechanical	
RPM	0-2,000 continuous.*
Mounting	Any end-of-shaft orientation is acceptable. Either the shaft or the housing must have a flexible coupling or link to the supporting structure. Housing rotation is prevented by an anti-rotation bolt with spring (standard) or support ring (optional).
Housing	Corrosion resistant stainless steel.
Connections	Flying leads with ring terminals on body are standard, connector/cabling options available.
General	Permanently lubricated bearings at both ends.
Electrical	
Voltage	Microvolts to 600 volts. (Higher voltage units available using MXV option)
Current	Nano-amperes to 25A per channel
Max. Wire Gauge	#12 AWG (MIL-W-16878 nickel plated, stranded copper wire with Teflon insulation). See Note 4 on back.
Frequency	DC-100Mhz (or higher using appropriately rated cable)
Stationary Contact Resistance	1m $\Omega$ (excluding lead wires)
Rotating Contact Resistance	Same as stationary resistance, no change with rotation.
Environmental	
Ambient Temperature	Not to exceed 160°F (70°C), assuming minimal heat flow through shaft and housing mounts. If machinery surfaces are hot, use insulated mounting systems or optional MXW – water cooling add-on.
Relative Humidity	No effect.

\*Please contact Meridian Laboratory for unit specific ratings.


 Made In The USA



\*Housing can rotate (shaft held stationary) if RPM's are low or if unit is balanced by Meridian Laboratory.

Model No.	No. Of Contacts	A (in.)	Wt. (lb.)
MX-2	2	2.34	0.75
MX-4	4	3.00	1.0
MX-6	6	3.66	1.4
MX-8	8	4.32	1.7
MX-10	10	4.98	2.0
MX-12	12	5.64	2.3

Model MX example sizes; units containing more contacts are available.

- Note 1:** Dimensions subject to change without notice. If precise dimensions are required, contact Meridian Laboratory.
- Note 2:** Add 0.33 inches to length "A" and 2.5 ounces to the weight for each additional contact.
- Note 3:** Odd numbers of contact are available.
- Note 4:** The maximum allowable number of contacts is dependent on the size and type of wire needed to meet your requirements (teflon insulated, thermocouple leads, coaxial cable, twisted shielded pairs, or any combination of these.) The maximum teflon insulated wire gauge is #12. Wires can be connected in parallel for increased current capacity.

### Applications

- Transducer Signals:
  - Strain Gages
  - All Types Of Thermocouples
  - RTD's
  - LVDT's
  - Ultrasonic Gages
  - Eddy Current Probes
- DC/AC Power to 30A Per Contact
- Servo & Stepper Motor Control Signals
- Power Input & Temperature Control of Heated Rollers
- Instrumentation Signals
- Video Signals
- Communications
- Digital Data Transmissions

### Features

- Compact Size
- Zero Maintenance
- No Electrical Noise
- Environmentally Sealed
- Rugged Design
- High Reliability
- Unaffected By Vibration
- Mount In Any Orientation
- Combine Power & Control
- 95% Energy Efficient
- End Of Shaft Mounting
- Fits Existing Equipment

Call us today at 1 (800) 837-6010 to request a quote or visit us online at [www.MeridianLab.com](http://www.MeridianLab.com) to learn more.