



**REED SWITCH DEVELOPMENTS CORP.**

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## SPECIFICATION SHEET

**2220-1091-400**

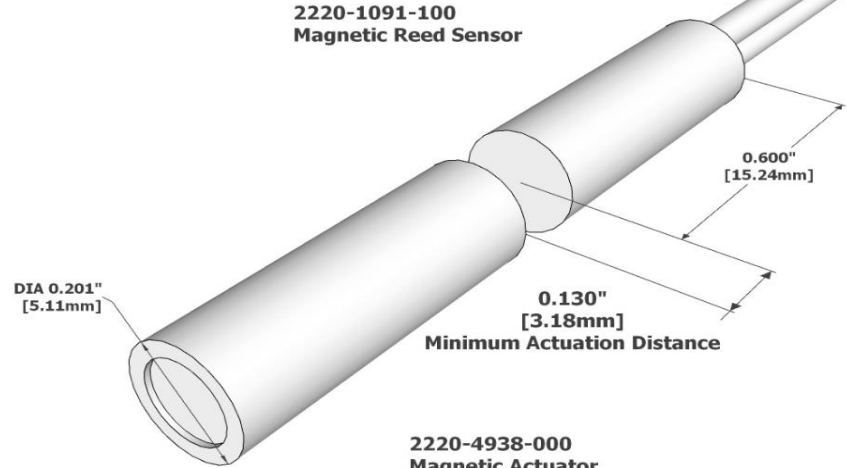
Alternate Part Number:  
**AM2220-1091-10K01**

### Active / Equivalent Part Numbers:

- 2220-1091-400 - KIT - Contains**  
 (1) 2220-1091-100 - Magnetic Reed Sensor  
 (1) 2220-4938-000 - Magnetic Actuator  
**AM2220-1091-10K01 - KIT - Contains**  
 (1) AM2220-1091-10-01 - Magnetic Reed Sensor  
 (1) AM2220-4938-00-01 - Magnetic Actuator

| Sensor (Reed) - Specifications |                                    | 1091               |        |
|--------------------------------|------------------------------------|--------------------|--------|
| Physical                       | Configuration                      | SPST               |        |
|                                | Form                               | A                  |        |
|                                | Contact Position                   | CENTER             |        |
|                                | Glass L                            | 7.00               | mm     |
|                                | Glass D                            | 1.80               | mm     |
|                                | Total L*                           | 46.00              | mm     |
|                                | Wire D                             | 0.45               | mm     |
|                                | Gap Location                       | CENTER             |        |
|                                | Mount Spec*                        | THRU               |        |
|                                | Contact Material                   | RUTHENIUM          |        |
|                                | Max Vibration Resistance           | 10                 | G      |
|                                | Max Shock Resistance (11ms)        | 100                | G      |
|                                | Lead Tensile Strength              | N/A                | KG     |
|                                | Operating                          | Pull in (+/- 2AT)* | 7 - 12 |
| Drop out*                      |                                    | 3 - 16             | AT     |
| Operate Time                   |                                    | 0.115              | ms     |
| Bounce Time                    |                                    | 0.035              | ms     |
| Release Time                   |                                    | 0.035              | µs     |
| Resonant Frequency             |                                    | 17900              | Hz     |
| Max Operating Frequency        |                                    | N/A                | Hz     |
| Operating Temperature Range    |                                    | -55 - 105          | °C     |
| Storage Temperature            |                                    | N/A                | °C     |
| Electrical                     |                                    | DC Contact Rating  | 10     |
|                                | AC Contact Rating                  | N/A                | VA     |
|                                | DC Switching Voltage               | 170                | VDC    |
|                                | AC Switching Voltage               | 120                | VAC    |
|                                | DC Switching Current               | 0.500              | A      |
|                                | AC Switching Current               | 0.500              | A      |
|                                | DC Max Carry Current               | 0.500              | A      |
|                                | AC Max Carry Current               | 0.500              | A      |
|                                | Min Breakdown Voltage              | 210                | VDC    |
|                                | Max Initial Contact Resistance     | 150                | mOhm   |
|                                | Typical Initial Contact Resistance | 120                | mOhm   |
|                                | Max Contact Capacitance            | 0.350              | pF     |
|                                | Min Insulation Resistance          | 10 <sup>6</sup>    | Ohm    |

\* Pre-processed, bare reed element



### Sensor - Wire/Cable Characteristics (cont.)

| Type                | Wire         |
|---------------------|--------------|
| Conductor Count     | 2            |
| Length              | 6.0"/152.4mm |
| Colors              | BLK          |
| Insulation Material | PVC          |
| Gauge               | 24 AWG       |
| Stranded Copper     | 7 STR-TC     |
| Maximum Temp        | 105°C        |

### Housing Characteristics 2105

| Cylindrical Smooth |                |
|--------------------|----------------|
| Length / Thickness | 0.600"/15.24mm |
| Diameter           | 0.201"/5.11mm  |
| Material           | Celanex 3316   |

### 2220-4938-000 Magnetic Actuator

All measurements are in Inches [millimeters]

### Standard Actuator: 2220-4938-000

| Specifications                                     | Description    | UM     |
|--|----------------|--------|
| Magnetic Orientation                               | Through Length |        |
| Max Operating Temp.                                | 176°/80°       | °F/°C  |
| Curie Temp.  | 536°/280°      | °F/°C  |
| BR max   | 11             | kGauss |
| BH max   | 30             | MGOe   |
| Coercive Force Hc                                  | 10             | kOe    |
| Intrinsic Coercive Force Hci                       | 18             | kOe    |
| Standard Sensor/Actuator - Min. Actuation Distance |                |        |
| 2220-4938-000                                      | 0.13"/3.3mm    |        |
| Assembly Certifications                            |                |        |
| UL Recognized (File #: E102207)                    | Y              |        |
| RoHS / Reach Compliant                             | Y              |        |
| Conflict Free Material                             | Y              |        |

REV DATE: 10/06/2021

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