



TRIGGY®

High-Performance Smart Actuator for NewSpace

TRIGGY® is the best way to deploy, lock, unlock, release spacecraft mechanisms and dismantlement.

Overview

- ▲ **Compatible with HDRM**
(Hold Down Release Mechanisms)
- ▲ **Triggering time: minimum 30 sec**
- ▲ **Triggering temperature up to 230°C**
Select your own triggering temperature from 0 to 230°C
- ▲ **In Orbit Operational Temperature range**
-120°C to +120°C
- ▲ **Preloads up to 51,5 kN**

Comprehensive range

Suited from 1U to large Sats

Configurable fastener
(raw material and geometry)

From M2 (2g) to M12 (180g)

Added value

- **Easily resettable**
- Simple resettable tool (up to 50 cycles)
- Screw tensioning tool
- Non-explosive
- Maximum reliability
- Lifetime 30 years
- Compact
- Simple design
- Easy to use
- Plug & Play Solution

ITAR Free



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TRIGGY®

Features

- ▲ TRIGGY® includes SMA (Shape Memory Alloy) component, redundant heater, breakable fastener and temperature sensor.



| TRIGGY®-NT | | | NT02 | NT03 | NT04 | NT05 | NT06 | NT08 | NT10 | NT12 |
|------------|----|--------------------------------|-------|-------|-------|--------|--------|--------|--------|--------|
| Screw* | Dv | Screw diameter (mm) | 2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 |
| SMA | | Material | NiTi | NiTi | NiTi | NiTi | NiTi | NiTi | NiTi | NiTi |
| | La | Initial length (mm) | 8.4 | 12.4 | 17.2 | 21.2 | 25.4 | 34.8 | 43.6 | 52.4 |
| | ID | Inner diameter (mm) | 2.1 | 3.15 | 4.2 | 5.25 | 6.3 | 8.4 | 10.5 | 12.6 |
| | W | Weight (g) | 2 | 5 | 14 | 22 | 35 | 80 | 140 | 230 |
| | l | Elongation (mm) | 0.3 | 0.5 | 0.6 | 0.8 | 1.0 | 1.3 | 1.7 | 2.1 |
| Heater | P | Minimal electrical power (W) | 6 | 12 | 24 | 35 | 50 | 95 | 150 | 220 |
| | U | Voltage (V) | 5-7 | 22-34 | 22-34 | 22-34 | 22-34 | 22-34 | 22-34 | 22-34 |
| Actuator | OD | Outer diameter (mm) | 10 | 12 | 18 | 20 | 23 | 28 | 32 | 36 |
| | Fr | Fracture strength (N) | 1 600 | 3 600 | 7 200 | 11 000 | 15 700 | 30 100 | 47 500 | 68 700 |
| | Fc | Maximum preload strength (N)** | 1 200 | 2 700 | 5 400 | 8 300 | 11 800 | 22 500 | 35 500 | 51 500 |

| TRIGGY®-HT | | | HT02 | HT03 | HT04 | HT05 | HT06 | HT08 | HT010 | HT012 |
|------------|----|--------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Screw* | Dv | Screw diameter (mm) | 2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 |
| SMA | | Material | CuAlNi | CuAlNi | CuAlNi | CuAlNi | CuAlNi | CuAlNi | CuAlNi | CuAlNi |
| | La | Initial length (mm) | 6.4 | 6.9 | 9.6 | 11.9 | 14.2 | 19.5 | 24.4 | 29.3 |
| | ID | Inner diameter (mm) | 2.1 | 3.1 | 4.2 | 5.2 | 6.3 | 8.4 | 10.5 | 12.6 |
| | W | Weight (g) | 2 | 4 | 10 | 17 | 25 | 60 | 110 | 180 |
| | l | Elongation (mm) | 0.5 | 0.5 | 0.7 | 0.9 | 1.1 | 1.5 | 1.9 | 2.3 |
| Heater | P | Minimal electrical power (W) | 6 | 10 | 20 | 30 | 45 | 85 | 130 | 190 |
| | U | Voltage (V) | 5-7 | 22-34 | 22-34 | 22-34 | 22-34 | 22-34 | 22-34 | 22-34 |
| Actuator | OD | Outer diameter (mm) | 10 | 13 | 20 | 22 | 24 | 30 | 35 | 40 |
| | Fr | Fracture strength (N) | 1 600 | 3 600 | 7 200 | 11 000 | 15 700 | 30 100 | 47 500 | 68 700 |
| | Fc | Maximum preload strength (N)** | 1 200 | 2 700 | 5 400 | 8 300 | 11 800 | 22 500 | 35 500 | 51 500 |

*Materials available for fasteners:
 - Solution-treated and aged Ti-6Al-4V (AMS 4965)
 - CuBe2 (Alloy 25HT)
 - Stainless Steel 15-5PH (H900)

** With preload optimization

