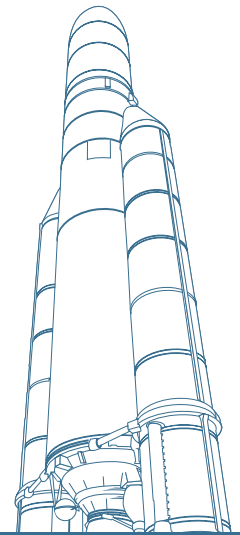


M10 SEPARATION NUT

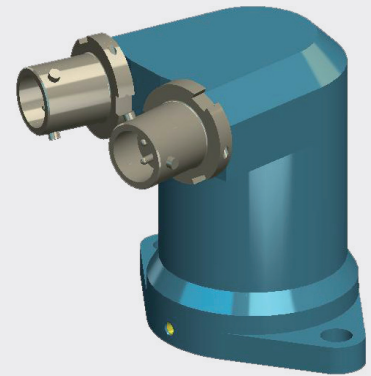
P/N ME0038



Hold down and Release Mechanism designed and qualified for use on satellites

SPECIFICATIONS

- **Application:** To maintain a preload bolt that attaches separate components, and release it on electrical command
- **Nut size:** ISO M10 x 1,25
- **Bolt tension (pure tensile load):** 5 kN to 30 kN
- **Operating time:** ≤ 10 ms
- **Leak rate:** 10^{-4} scc/sec
- **Redundancy:** 2 initiators
- **Reliability:** > 0.9999 with 95% confidence level
- **Initiator:** 2 redundant NSI



MECHANICAL CHARACTERISTICS

- **Mass:** ≤ 194 g
- **Housing material:** Aluminium alloy
- **Nut material:** Steel (15-5-PH)
- **Fixing mode:** 2 holes Ø 5,5 mm

ELECTRICAL CHARACTERISTICS

- **Bridgewire number:** 1 + 1
- **Bridgewire resistance:** $1.05 \pm 0.1 \Omega$
- **Insulation resistance:** $\geq 100 \text{ M}\Omega / 250 \text{ VDC}$

CURRENT RATINGS

- **Nominal firing current:** 3.5 A / 10 ms (-54°C, +150°C)
5 A / 10 ms (-162°C, -54°C)
- **“No fire” current:** 1.0 A/1W-5 min until +150°C
- **“No fire” current test:** 0.02 A / 1 min max

M10 SEPARATION NUT

P/N ME0038

ENVIRONMENT

Acceleration: 40 g - 2 min each axis, each direction

Shock sinus: 100 g - 5 msec each axis, each direction

Sinus vibration: 5-25 Hz: ± 19 mm - 25-62 Hz: 1.5 m/s - 62-600 Hz: 60 g -
600-2000 Hz: 30 g - 2 oct/min - 1 sweep

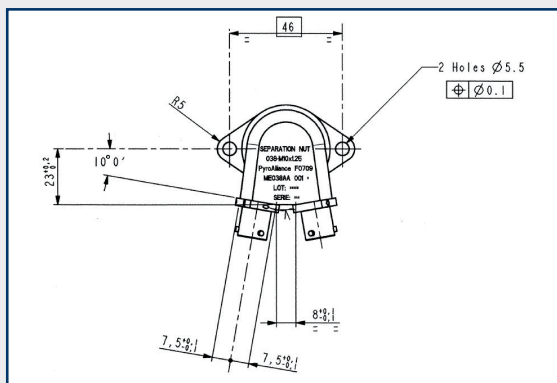
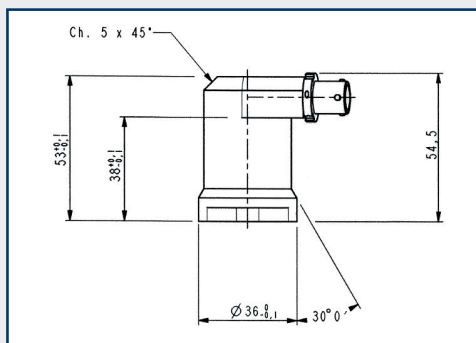
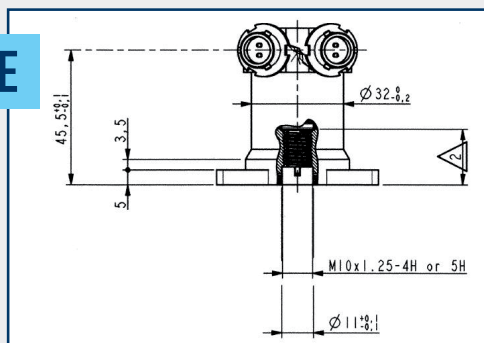
Random vibration:

20-50 Hz: + 3 dB/oct – 50-250 Hz: 2 g²/Hz - 250-1300 Hz: - 6 dB/oct -1300-2000 Hz : 0.07 g²/Hz
Global: 29.6 g RMS all axes

Thermal shock 6 cycles: -90°C up to +120°C

Operating temperature: -60°C to +120°C

INTERFACE



RECOMMENDED STORAGE CONDITIONS

Storage temperature: +10°C up to +30°C

Humidity: ≤ 60%

Storage lifetime: 10 years

Explosive class: 1.4 S

UNO N°: 0173

UNO designation: Release devices, explosives