



SPACE CABLE/BOLT CUTTER P/N ML0041

Pyroalliance designs and manufactures a wide range of pyrotechnic cutters dedicated to provide a secure object release or safety function by instantly cutting a rod or a cable.

Cutters are mostly dedicated to provide a fast and safe solution. We can address a variety cable shapes and materials (cords to hard metals).

For Space application, Pyroalliance manufactures high reliability rod-cutters, dual initiated, such as P/N ML0041 which is designed to sever a titanium pin of up to 3 mm diameter.

More generally, Pyroalliance designs and provides complete pyrotechnic chains tailored to its customers' needs. They are designed and manufactured under Pyroalliance design authority.

Les Mureaux Plant - Headquarters

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Produced by the Communication Department of Pyroalliance

Photo credits: Philippe Stroppa – Pyroalliance

ML0041 Cutters

Operation mode

Under defined circumstances, an electrical order will start initiation. Then, the generated gas pressure grows into the internal sealed pyrotechnic chamber behind a blade, until reaching the ballistic threshold. Thus, the kinetic energy is given to the blade during its stroke and this induces the rod severing against the anvil.

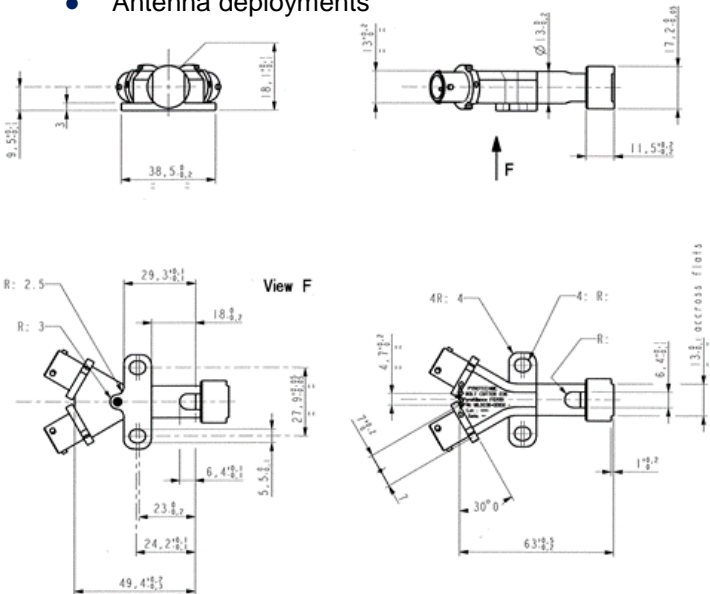
- an housing with a groove featuring the rod path and provisions for fixation,
- 2 redundant NSI equivalent, threaded into the housing,
- a blade in hardened steel,
- a shear pin for ballistic threshold purpose, binding the blade to the housing,
- an anvil, maintained by the cap to the housing,
- a cap, threaded into the housing.

Benefits

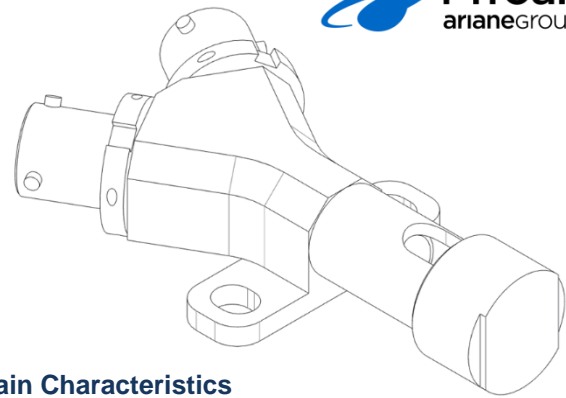
- Instantaneous event
- High cutting capacity compared to its foot print (weight & envelope)

Applications

- Solar array release
- Antenna deployments



[For more information please contact us. Visit our website: www.pyroalliance.com](http://www.pyroalliance.com)



Main Characteristics

Cutting size capability	Up to 3.5mm (with tension)
Titanium reference	Annealed TA6V (3.7164.1)
Recommended firing current	5A during 10ms
Operating time	~0.3 ms
Leak rate	$\Delta P \leq 5\%$ after 60s, initial pressure 15bar
Redundancy	2 initiators
Weight (including initiators)	<120 g
Operating temperature:	- 54 to + 80°C
Connector type	Receptacle mates with MS3116P8-2S connector in accordance with MIL-C-26482

Recommended storage conditions

Temperature	10°C < T < 30°C
Relative humidity	HR < 60%
Pressure	Atmospheric

Other conditions

Non-operating temperature	-110°C to +150°C
Pressure	Down to 10 ⁻⁸ Pa
Relative humidity	≤ 100%

Product Classification

- Number UN: UN0288
- Storage class: 1.4S
- Not restricted by ITAR regulations

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