

# Addressable Downhole Release (ADR) and Panel (ADRP)



The Addressable Downhole Release tool unlatches the tools below it, leaving behind a standard external fishing neck for subsequent retrieval.

The Addressable Downhole Release (ADR) allows a tool string to be separated downhole.

The ADR is recommended whenever there is a risk that wireline tools or guns may become stuck downhole. Typical applications include wireline interventions in deviated wells, ballistic operations, and operations in gas wells (where the coefficient of friction is typically high).

The Addressable Downhole Release separates into two pieces on the command of the surface panel. To initiate a release, a strict protocol must be followed within a limited time period in order to prevent accidental use. Once unlatched, the upper section (including the main tool body and electronics) is pulled out of hole with the wireline. The lower section remains downhole with a standard 1 3/8" fishing neck for subsequent easy retrieval. Both components of the separated tool are fully sealed in order to protect the tools above and below from being flooded with well fluid.

The robust surface panel (the ADRP) controls and monitors the position of the ADR in real-time, so the tool status is always known rather than assumed. A maximum of four individually addressed ADR tools can be run per tool string and operated from a single dedicated control panel. For example, one ADR could be run above a tractor while a second ADR could be run between the tractor and the passenger equipment below.

A full wellsite function check includes unlatching the tool before the job. In order to reset the tool, the two sections are simply pushed together and re-latched.

The mechanical release mechanism has three distinct stages:

1. Electrical feed-through isolation
2. Mechanical unlatch
3. Hydrostatic pressure equalisation and tool separation

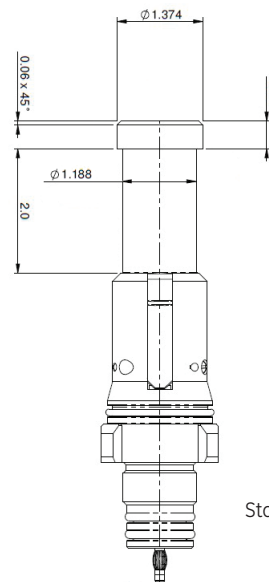
Since the electrical feed-through is isolated, any tools above the ADR will continue to operate as normal after unlatching. For example, a CCL can be logged while pulling out of hole.



ADRP

## Features

- Standard 1 3/8" fishing neck, designed for easy retrieval
- Full pre-job function check (latch/unlatch) recommended at wellsite
- Ability to run multiple ADR tools per downhole string
- Robust telemetry suitable for both long and short wirelines
- Three-stage controlled release process monitored in real-time
- Tools above ADR continue to function after release
- Design incorporates fail-safe logic to prevent accidental release
- Qualified for shock and vibration
- Feed-through conductor rated for high voltages and currents
- Compatible with Addressable Downhole Switch (ADS)



Standard Fish Neck



# Addressable Downhole Release (ADR) and Panel (ADRP)



## Specifications

### Downhole Tool

Parameter	Value
Field joint	1 <sup>3</sup> / <sub>16</sub> in. UN 12 tpi GO ends
Tool diameter	2 <sup>1</sup> / <sub>8</sub> in. (53.98 mm)
Tool makeup length	25.4 in. (645 mm)
Tool shipping length	27.3 in. (693 mm)
Weight	19.6 lb (8.89 kg)
Operating temperature	-20°C to +177°C (-4° to 350°F)
Working pressure	20,000 psi (137.9 MPa)
Vibration qualification	5 g (15 to 500 Hz), 20 sweeps
Shock qualification	1000 g 0.5 ms (half-sine)
Fishing head diameter	1.374 in. (34.90 mm)
Fishing load post-separation	20,000 lbf (88,964 N)
Fishing load pre-separation	10,000 lbf (44,482 N)
Time for release operation	4 minutes
Time to reconnect	4 minutes
Log out of hole after release	Yes
Throughwire max. voltage	+1600 to -1000V DC continuous
Throughwire max. current	12A DC continuous
Operating voltage	-50 to -90V DC nominal
Tool current	62 mA
Multi-tool capability	4 x ADR
Status reporting	Continuous tool status reporting to surface module
Materials	Corrosion resistant throughout
<b>Surface Panel</b>	
Size	350 x 295 x 150 mm (LxWxH)
Weight	12.1 lb (5.5 kg)
Mains voltage	110 or 230V AC, 50 to 60 Hz
Supply current	1A
Vibration qualification	5 g (15 to 500 Hz), 20 sweeps
Shock qualification	25 g for 11 ms (half-sine)

Note: Although the ADR001 has been proven to withstand high levels of Shock and Vibration (See Specifications), GE Oil and Gas advise a Shock Sub is utilised when an ADR001 is run in conjunction with ballistics.



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