

1 11/16" In-line Neutron Tool

Product Reference: 050-NU170-0000

The In-line Neutron Tool is used to determine the hydrogen index of the formation which is related to formation porosity and fluid content.

The cased-hole In-line Neutron Tool uses a single, high temperature, ruggedized 1-inch x 8-inch He³ thermal neutron detector to measure the neutron cloud from a chemical neutron source. The source detector spacing is variable from 11-inch to 17-inch and can be optimized for well conditions and neutron source type. Detector spacing is easily changeable in the field.

The tool operates using a bottom load 3 or 5 Ci AmBe neutron source. When combined with a gamma ray and a Dual Receiver Cement Bond Log (CBL), the data is multiplexed with the Gamma Ray, Casing Collar Locator (CCL), and CBL data in a single pass in the well.

Data transmission to surface is via multiple line drivers, or by digital telemetry.



SPECIFICATIONS – 1 11/16" IN-LINE NEUTRON TOOL

Diameter	1 11/16"	4.3 cm	Mechanical:	
Length	60"	1.52 m	Top Connection	6 pin Probe type
Weight	49 lb.	22.2 kg	Bottom Connection	
Operating Voltage	100–130 VDC			
Operating Current	25 mA. DC			

Limitations:

Maximum Pressure	20,000 psi	137.8 MPa
Maximum Temperature	350°F	177°C

RELATED PRODUCTS

- 050-CB170-1000 1 11/16" Dual Receiver Cement Bond Log Tool
- 050-RADII-170 1 11/16" RADII™ Dual Receiver Cement Bond Log
- 050-GA500-0035 Source holder for Gammation source
- SOU-HTAMB-0025 Handling tool
- 050-GA500-0035A Source holder for Gulf Neutron source

Note: Proper local or federal nuclear regulatory agency licenses and requirements must be met to possess and/or operate a chemical neutron source.

At Probe, we design, manufacture and service specialized modular downhole tools and systems. Our tools are used in formation evaluation, well integrity assessment and well productivity determination across the global energy industry.