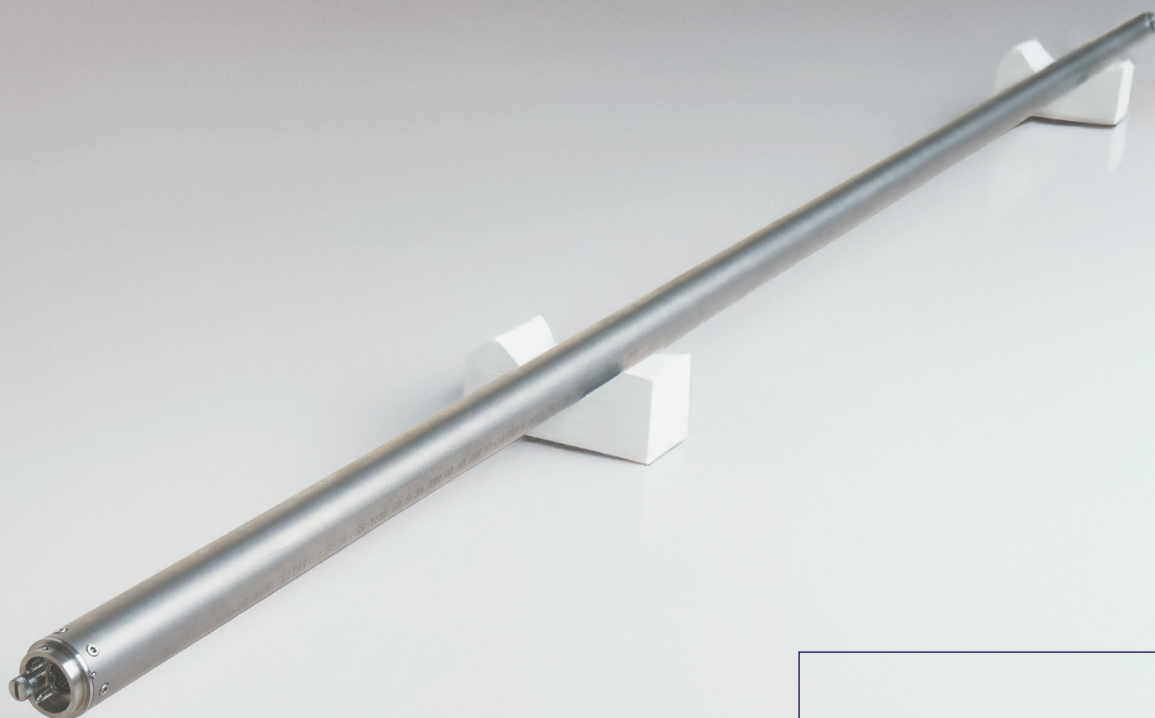


## NEUTRON EMITTING MODULE FOR PULSED NEUTRON LOGGING TOOL

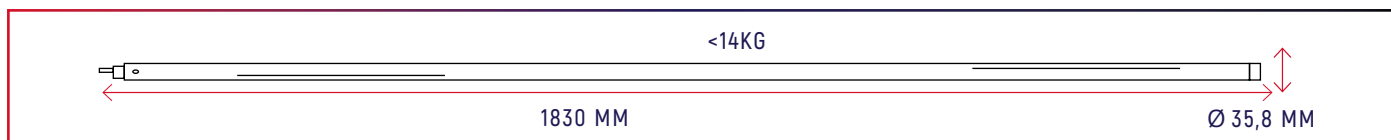


WITH SODILOG TUBE INSIDE

- Ruggedized design for 1"11/16 logging tool
- Suitable for high-frequency pulsed emission (Sigma, C/O, ...)
- Qualified for 150°C operation
- Easy tool assembly

We are available to discuss your business needs and mission requirements,  
provide pricing and technical proposal :

**CONTACT US: [SALES-DEPARTMENT@SODERN.FR](mailto:SALES-DEPARTMENT@SODERN.FR)**



*Song150 is a built-in neutron emitting module consisting of one stainless steel housing with • 14 MeV Sodilog sealed neutron tube • VHV power supply • Ion source pulser*

## MAIN FEATURES

Typical Neutron emission	1.5x10 <sup>8</sup> SodilogPlus at nominal set point with 10% duty cycle and 20°C (for D-T tube)
Mechanical format	sealed cartridge
Neutron tube	Sodilog -DT 3.3Cu
Typical lifetime at nominal setpoint	1000h operating time for the neutron tube
Operating temperature (*)	Up to 150°C casing temperature
VHV supply	Integrated 100kV VHV Power Supply unit

## NEUTRON EMISSION CHARACTERISTICS

Neutron energy	14.1Mev
Minimal Neutron pulse width	20µs
Neutron pulse sequence	Up to 8kHz
Neutron Duty cycle	5% to 40% see user Manuel for detailed set-points
Ion Source pulser	Integrated transformer
Typical set point for 1,5e8 n/s (VHV / Beam current)	85kV / 80µA

## ELECTRICAL CHARACTERISTIC

Maximum VHV high voltage	90kV (at 150°C)
Maximum beam current	90µA (at 150°C)
Average target dissipation	7W (up to 10w)
Typical Ion source voltage	1300V
Typical Ion Source Supply current	90mA
Replenisher current	0 to 1.5A (value for continuous or RMS current)

## MECHANICAL INTERFACES

Housing	Cartridge Hermetically sealed. Suitable for integration in a 1" 11/16 outer diameter housing
Insulation gas	SF6 / C4 insulation gas, typical value: 9 bar internal pressure
Inflation interface	By quick release connector

## ELECTRICAL INTERFACE

Power and control interface	23 pins connector
VHV power supply voltage	175V +/-25V
VHV power supply control	0-5V
Input Ion Source Supply voltage	40V continuous middle voltage / 0 - 12V alternative voltage for primary polarity
Monitoring	Insulation gas pressure, Internal T°C
In Source Voltage & Replenisher current interface	5 pins interface
Total Average Power supply	26W (depending on the duty cycle)

### BEST IN CLASS

Over 50 years of experiences in designing and production of Neutron Technology for the industry

### SMART DESIGN

Streamline architecture for sustainable volume deliveries

### LONG LIFETIME & EXCELLENT ROBUSTNESS

- Over 1000 working hours
- Strong SODILOG neutron tubes heritage

**SODERN • 20 Avenue Descartes 94450 Limeil-Brévannes, France • [www.sodern.com](http://www.sodern.com)**

Product specifications are subject to change without notice or obligation