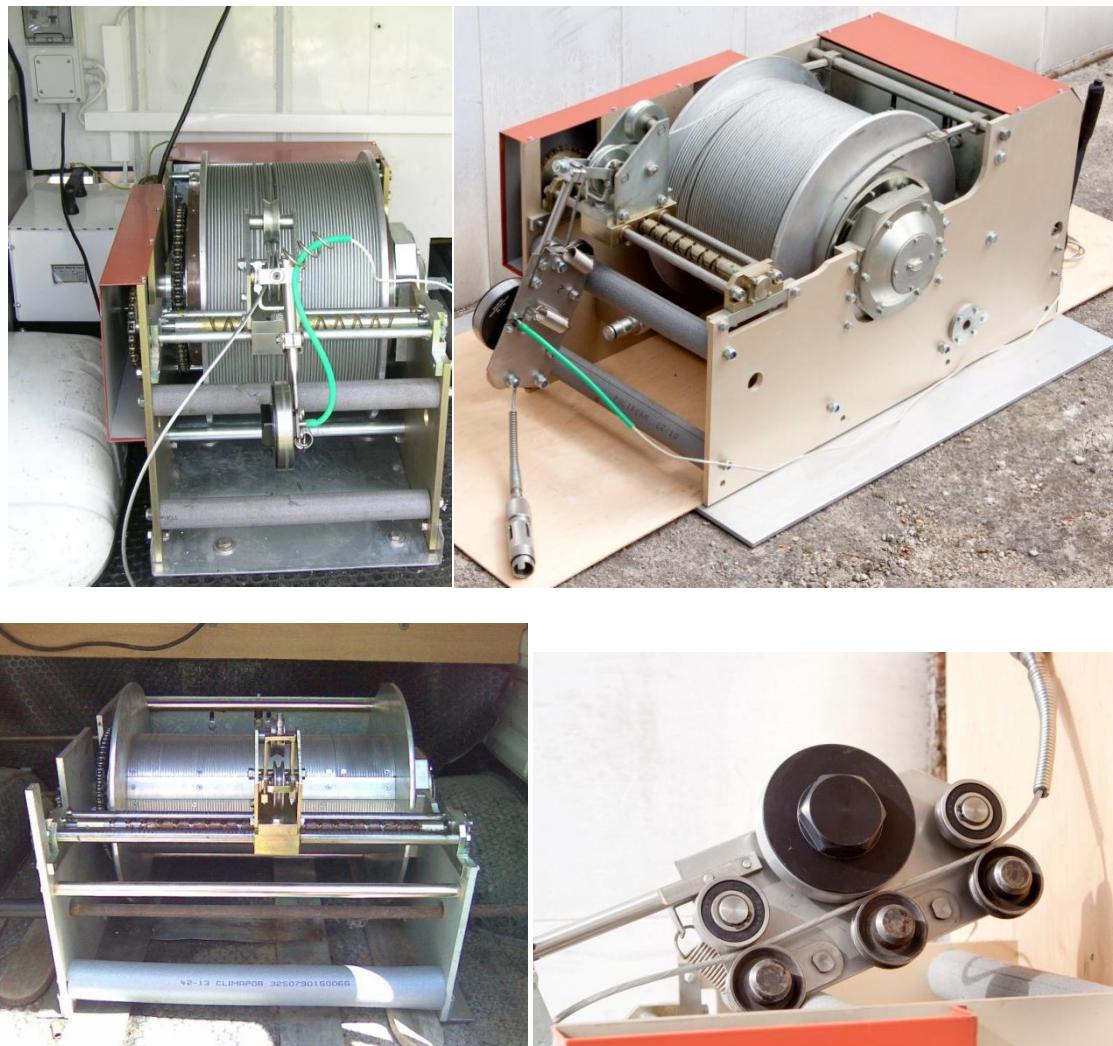


What equipment we can supply, what kind of gauging services we can provide! (Detail)  
Instrument Sales - Training - Service - Consulting - Coupling - Common R&D Opportunity!

Milyen berendezéseket tudunk szállítani, milyen szelvénycési szolgáltatásokat tudunk nyújtaní! (részlet), Műszer eladás - betanítás - szerviz - tanácsadás - szelvénycés - közös K+F lehetősége!

**Winch:** 300 - 600 - 1000 - 2200 m



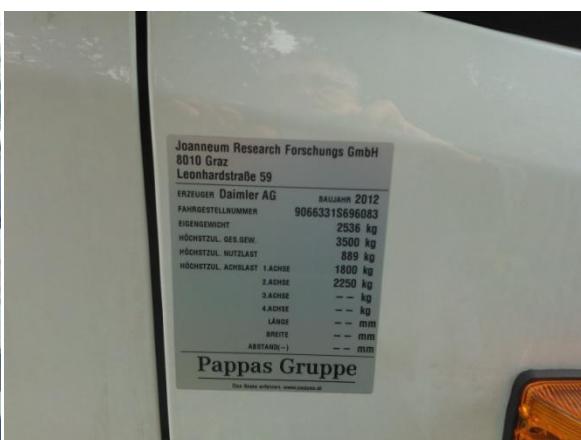
**PCLOGGER, (IP30, IP64)**



#### WINLOGGER SOFTWARE

Screen/printer log display in calibrated engineering units, Selectable depth sample interval (1, 5, 10, 20, 50, 100 cms etc), Metric and API format, Data export in ASCII (LAS) format, Compatible with Windows 10 and earlier OS!

## Wireline logging equipments



**PROBES (pl.)**

BOREHOLE GEOMETRY

3-ARM CALIPER

IMPELLER FLOWMETER

DEEP WATER SAMPLING

ELECTRIC LOG

MICRORESISTIVITY

POT 16" - 64", GRAD.....

FOCUSSED ELECTRIC (GUARDLOG)

NATURAL GAMMA

SPECTRAL GAMMA

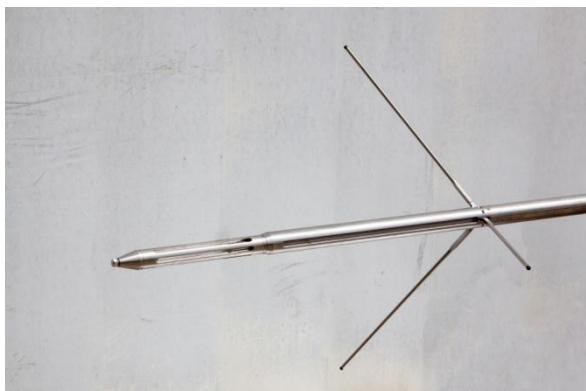
TEMPERATURE CONDUCTIVITY

FULL WAVEFORM SONIC

NEUTRON - NEUTRON

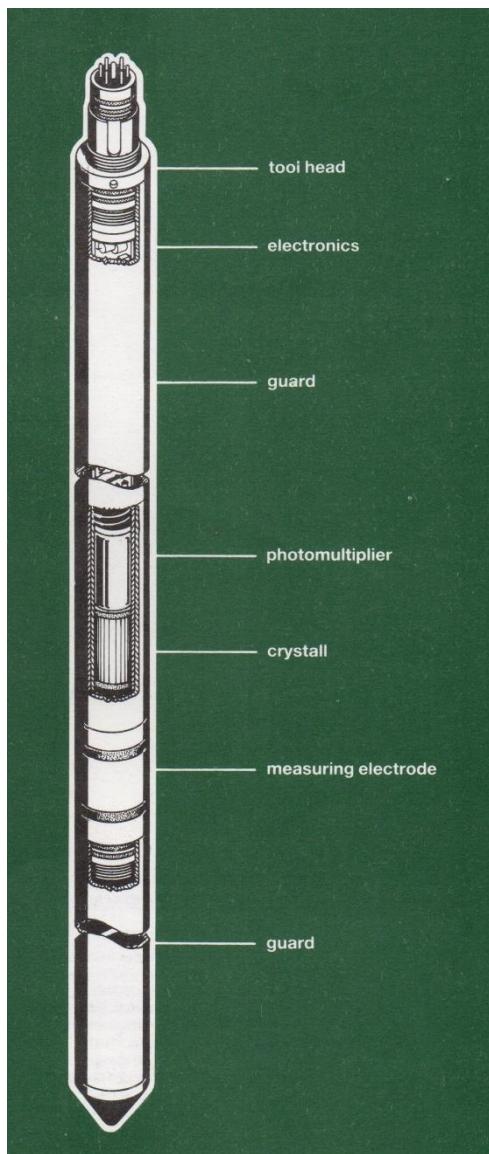
GAMMA - GAMMA

.....



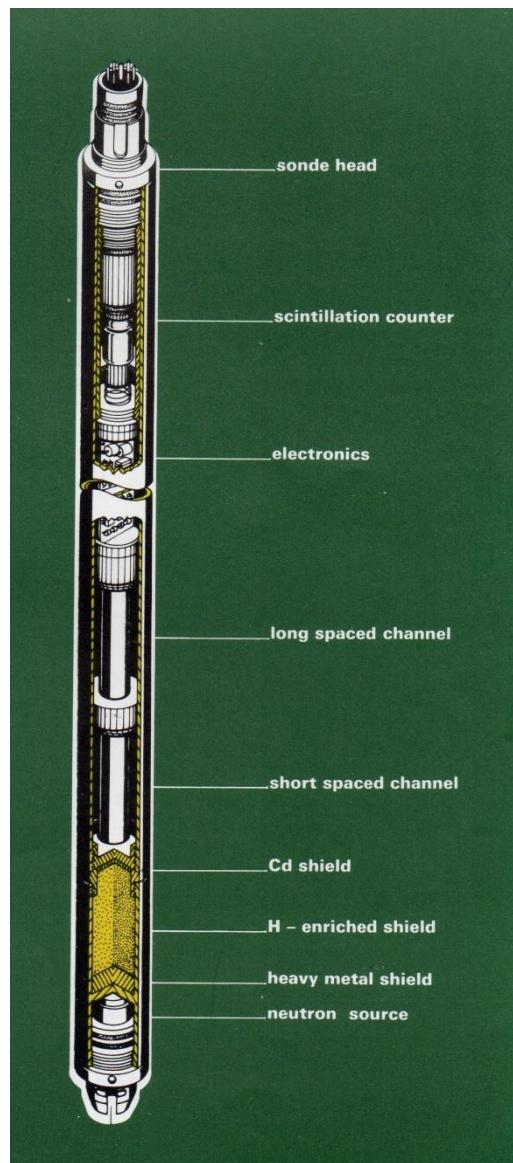
### KLL3G-2-80-43Y

TWO PARAMETER LATEROLOG-NUCLEAR TOOL



### KRGNN-3-120-43sHY

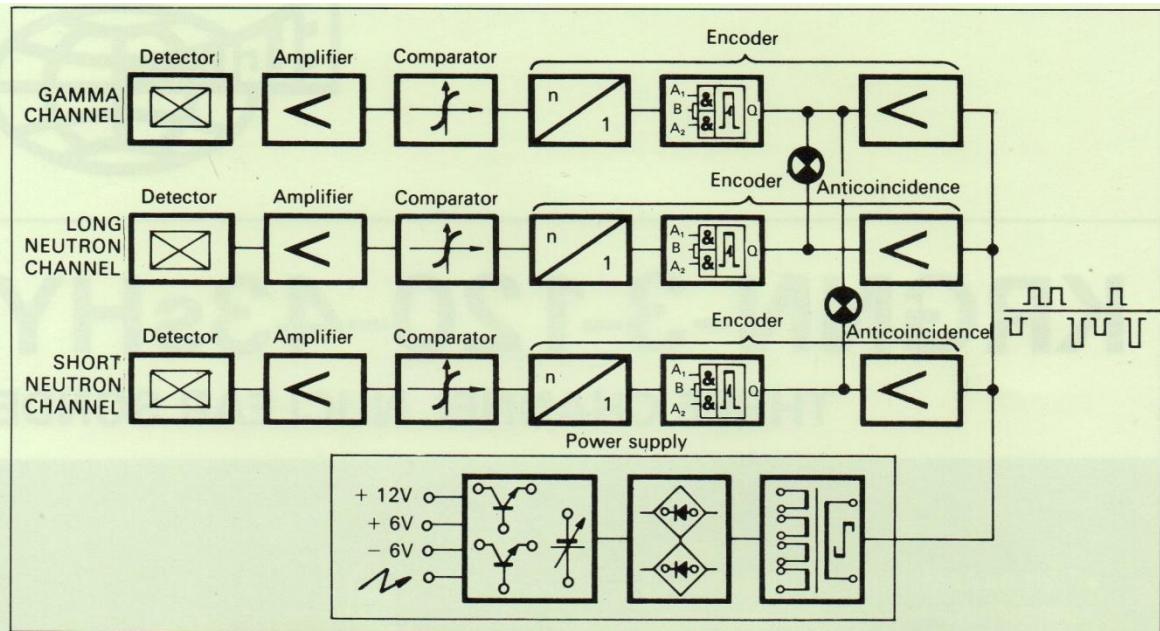
THREE CHANNEL NUCLEAR SONDE



#### SPECIFICATION

|                                     |  |
|-------------------------------------|--|
| Power requirement .....             | 100 mA, 35 V DC  |
| Measurable parameters .....         | guard laterolog + natural gamma radiation  |
| Resistivity measurement range ..... | 0 to 10 000 $\Omega\text{m}$ , the concrete range can be set on the surface unit |
|                                     |  |
| Natural gamma channel               |  |
| Measurement range .....             | 0–2000 $\mu\text{R/h}$   |
| Dead time .....                     | 2 $\mu\text{s}$  |
| Detector .....                      | Nal(Tl) single crystall + photomultiplier  |
| Heat tolerance .....                | 80 °C  |
| Dimensions                          |  |
| Diameter .....                      | 43 mm  |
| Length .....                        | 2300 mm  |
| Pressure rating .....               | 26 MPa   |
| Cable head .....                    | 7 guill contact connector with 36 mm diameter                                    |
| Applicable cable .....              | single-core armoured cable   |

In the interest of easy transportation the tool can be dismantled to two parts with similar lengths.



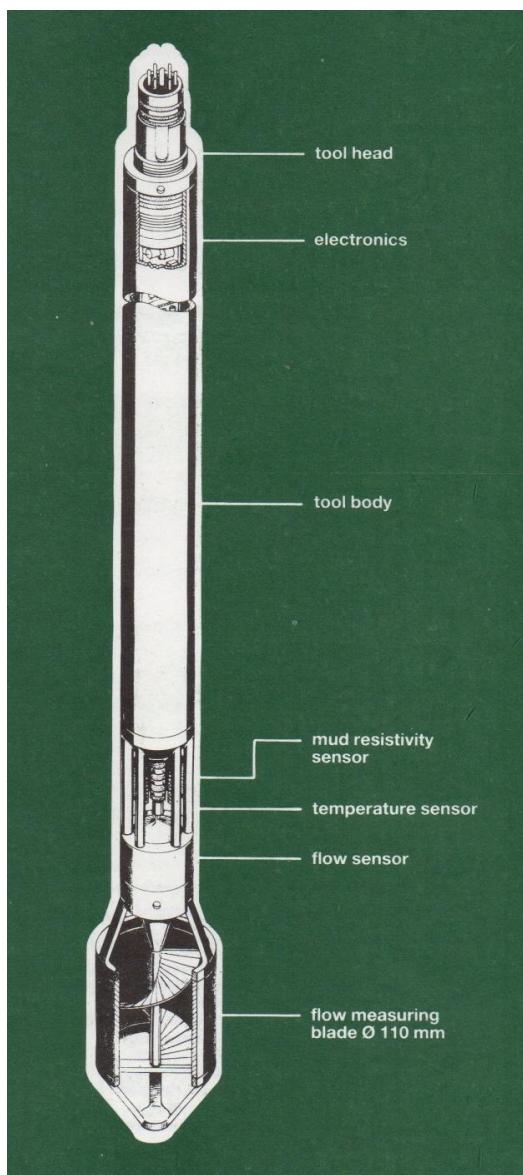
### SPECIFICATIONS

|                                  |  |
|----------------------------------|--|
| Power requirements .....         | 30 V D.C.  |
| Detectors                        |  |
| gamma-ray channel .....          | Nal(Tl) scintillator                                   |
| neutron channels .....           | He <sup>3</sup> filled proportional neutron detectors  |
| Dead time .....                  | 2 $\mu$ s  |
| Range of porosity .....          | 0 to 42%   |
| accuracy .....                   | $\pm 0.35\%$ at 15% porosity                           |
| Cable .....                      | single conductor armoured logging cable                |
| Cable head .....                 | $\varnothing 36$ mm, with 7 conductors (CMEA standard) |
| Dimensions                       |  |
| diameter .....                   | 43 mm O.D.   |
| length .....                     | 2600 mm  |
| Source-detector spacings         |  |
| short channel .....              | 350 mm } the reference point is at the middle          |
| long channel .....               | 650 mm } of the detectors sensitive length             |
| Temperature rating .....         | -5 to +120 °C  |
| Pressure rating .....            | 26 MPa   |
| Neutron source recommended ..... | $10^7$ n/s Am Be                                       |

The sonde can be extended with a magnetic Casing Collar Locator, thus modifying the type to

**KRGNNL-4-120-43sHY**

**KTRMQ-3-120-43Y**  
TEMPERATURE-FLUID RESISTIVITY-FLUID FLOW MEASURING TOOL

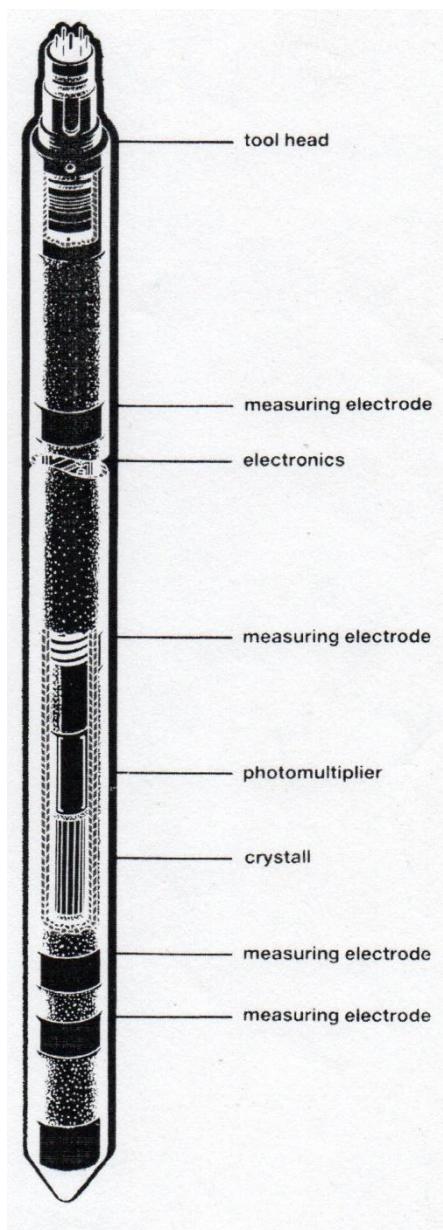


**SPECIFICATION**

|                               |  |
|-------------------------------|--|
| Power requirements .....      | 50 mA, 30 V DC                                       |
| Measurable parameters .....   | fluid flow<br>fluid resistivity<br>fluid temperature |
| Fluid flow measurement        |  |
| Flow meter diameter .....     | 43 mm 65 mm 110 mm                                   |
| Blade pitch .....             | 110 mm 110 mm 110 mm                                 |
| Threshold sensitivity .....   | 2 turn/min 2 turn/min 2 turn/min                     |
| Temperature measurement       |  |
| Measurement range .....       | 120 °C   |
| Absolute accuracy .....       | ± 1 °C   |
| Resolution .....              | > 0.05 °C  |
| Time constant .....           | 2 s  |
| Fluid resistivity measurement |  |
| Measurement range .....       | 60 Ωm  |
| Absolute accuracy .....       | ± 1 %  |
| Resolution .....              | 0.05 Ωm  |
| General parameters            |  |
| Pressure rating .....         | 260 bar  |
| Heat tolerance .....          | 120 °C   |
| Length .....                  | 1500 mm  |
| Diameter .....                | 43, 65, 110 mm depending on the flow sensor          |
| Mass .....                    | 7 kg   |
| Cable head .....              | 36 mm diameter connector with 7 guill contact        |
| Applicable cable .....        | single-core armoured cable                           |

## KGRRSP-4-80-44

FOUR PARAMETER SONDE



### Features:

- Four parameters simultaneously: 16", 64" normal potential, natural gamma radiation and SP
- Dead time and coincidence free circuitry
- Pulse transmission with high resolution
- High working stability
- Rugged construction
- Operated on single conductor cable
- Small diameter: 44 mm O.D.

The tool is developed for mineral and water exploration purposes. The depth matching of the log is carried out by the measuring program automatically.

The sonde works with "bridle" cable connection to logging cable.

### Specifications \*:

- |                          |                    |
|--------------------------|--------------------|
| - Power:                 | 35V D.C.<br>110 mA |
| - R16", R64" range:      | 0.1 - 2000 Ohmm    |
| - SP range:              | -900 mV - +900 mV  |
| - GR:                    | 0 - 2000 cps       |
| - Dimensions:            | Ø43mm x 2200mm     |
| - Operating temperature: | -5 - +80 °C        |
| - Pressure rating:       | 26 MPa             |