



RG Hi-OPTV high resolution optical televiewer

The Hi-OPTV provides a continuous very high resolution oriented image of the borehole walls using a conventional light source. A unique optical system based on a fisheye lens allows the probe to survey 360 degrees simultaneously. This information is processed in real time to produce a complete 'unwrapped' image of the borehole oriented to magnetic north. The probe offers superior resolution to the HRAT acoustic probe and produces images in real colour. Also, unlike the HRAT, it can operate in air-filled boreholes. It does not offer a travel-time measurement (caliper) and it is unsuitable for boreholes containing mud or cloudy fluids.

SPECIFICATIONS

Length:	1.63 m including natural-gamma option
Diameter:	52mm (10MPa pressure), 61 mm (20MPa pressure)
Weight:	5 kg
Max. temperature:	65°C
Construction:	titanium housing and non-magnetic brass parts
Borehole diameter:	3 to 20" depending on borehole conditions
Circular resolution:	user definable 360/540/720/900/1080/1260/1440 pixels
Cable type:	mono , multi-conductor or coaxial
Data rate:	real time compressed digital data, up to 1500 Kbps
Sensor type:	1280 x1024 pixels industrial grade CMOS image sensor
Colour resolution:	24 bit RGB
Shutter:	user adjustable (logarithmic range)
Capture rate:	user selectable, 20 to 60 images / second
Lighting:	internal high power and high efficiency white LEDs
Optics:	360° circle view lens , depth of field from 0 to infinity 6 element high quality glass assembly
Orientation device:	precision 3 axis magnetometer and 3 accelerometers
Inclination accuracy:	0.5 degree
Azimuth accuracy:	1.0 degree

SALES INFORMATION

I002180	Hi-OPTV probe (10MPa)
I013916	Hi-OPTV/ gamma probe (10MPa)
I013758	Hi-OPTV probe (20MPa)
I013917	Hi-OPTV/ gamma probe (20MPa)
I001691	Centralisers (70 - 110mm) 2 required
I001692	Centralisers (90 - 180mm) 2 required
I001693	Centralisers (180 - 260mm) 2 required
I001694	Centralisers (260 - 342mm) 2 required
I001695	Centralisers (342 - 472mm) 2 required

RG-DIP Image-processing software

RG-DIP is a sophisticated Windows-based package for processing, interpreting and displaying acoustic and optical televiewer image logs and dipmeter logs. It also accepts core data input for comparison with the wireline image logs.

Initially, the operator selects log features such as fractures using manual, semi-automatic or fully automatic picking options. In the automatic modes, the program self-selects using a Hough-transform technique. Calculation of the dip and azimuth of each feature then takes place. The operator may add classifications such as 'bedding' or 'closed fracture' Standard log presentations include tadpole and stick plots, stereographic projections of poles to planes and azimuth frequency diagrams.

Calculations may be carried out on the whole log or individual zones, selected by lithology. A synthetic core display allow convenient comparison of log and field core data and removes the need for impression packer testing in many cases.

The data is output in .bmp and .jpg formats for convenient plotting on standard printers.

SALES INFORMATION

I000460	RG-DIP Image processing software
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