Downhole Combined Remote Tool DCRT (hereinafter, the tool) lowers into the well on a geophysical cable. The tool registers the following parameters: pressure **P**, temperature **T**, gamma-rays **GR**, continuous bore spinner (top or bottom) **CBS**, full bore spinner **FBS**, capacitance water holdup **CWH**, induction resistivity **RES**, casing collar locator **CCL**, stream thermal indication **STI**.

The flow-meter channel design may vary depending on the tasks. Versions of the flow-meters are the same as the DCRT tools. You can connect the reversible flow-meter, that determines the direction of fluid flow, and the second inline flow-meter.

Solvable tasks:

- **Study of operating characteristics of the well:**
  - definition of radiating and absorbing intervals;
  - the definition of the inflow profile and acceptance;
  - the definition of a temperature mode;
  - definition of watering intervals;
  - definition of intervals of casing leaks, tubing and annular space.
- **Control over the operation of technical equipment:**
  - determination of the depth of installation of the equipment;
  - determination of liquid level;
  - determination of tubing and packers.
- **The study of the hydrodynamic characteristics of the wells:**
  - determination of productivity index;
  - determination of hydraulic and gas conductivity.

It is possible to manufacture the device with any combination of channels and with shorten length (a combined probe with the flow-meter).

Technical characteristics

Parameter	Value
The number of logging channels	8
The cycle time of one measurement, sec	0.25
Power supply (voltage stabilizer)	from +12V to +30V (depending on the length of the cable)
Current consumption, mA	120/270 (with STI)
Pressure channel (P)	
Measuring range, kgf/sq.cm	0...600, 0...800
The number of ADC bits	16
The relative error, %	± 0.15
Absolute error, kgf/sq.cm	0.9\ 1.2
Pressure resolution, %	0.0015
Pressure resolution,* kgf/sq.cm	0.006
* for range 0-600 kgf/sq.cm	
Temperature channel (T)	
Measuring range, °C	0...+100, 0...+120, 0...+150
The number of ADC bits	16
Absolute error, °C	0.5

Temperature resolution, °C	0.003
Time constant, sec	1
Gamma-rays channel (GR)	
Measuring range, microR/hour	0...250
Sensitivity, imp/min on 1 microR/hour, not less than	150
Relative error, %	± 15
Flow-meter channel (CBS, FBS)	
Design options of flowmeters:	
Flow-meter diameter 30(32) mm, 20 mm diameter polyamide spinner, range, m3/hour	3-250
Flow-meter diameter 38(42) mm, 27 mm diameter polyamide spinner, range, m3/hour	2-200
Inline Flow-meter diameter 38 mm, 27 mm diameter polyamide spinner, range, m3/hour	2-200
Open/close flow-meter diameter 38/110 mm (opened/closed), rubber spinner diameter 60 mm, range, m3/hour	0.5-50
Casing Collar Locator channel (CCL)	
Signal/noise ratio, not less than	5
Thermal Indication channel (STI)	
Overheating sensor in still water, °C, not less than	15
Time constant, sec	3
Current consumption, mA	150
Resistivity meter channel (RES)	
Conductivity measuring range, Sm/m	1...50
Absolute error, Sm/m, not more than	1
Thermal care zero, Sm/m, not more than	0.1
Capacitance water holdup channel (CWH)	
Measuring range, %	0...60
Absolute error, %	10
Size	
Length, mm	1600
Diameter, mm	28/30/36/38/42
Weight, kg, not more than	10

Modifications

Model	Description
DCRT -38 MPa/°C	Channels: T,P,GR,CCL,STI,CWH, RES, CBS, FBS
DCRT -30 MPa/°C	Channels: T,P,GR,CCL,STI,CWH,RES,CBS
DCRT -32 MPa/°C	Channels: T,P,GR,CCL,STI,CWH,RES,CBS
DCRT -38 MPa/°C	Channels: T,P,GR,CCL,STI,CWH,RES,CBS,FBS
DCRT -42 MPa/°C	Channels: T,P,GR,CCL,STI,CWH,RES,CBS,FBS