**Flowmeter system GEOSTAR-SVU**

**APPLICATION**

System is designed for real-time on-line testing for flow rate changing and for wellhead pressure changing simultaneously. It is used for research of running and service oil wells, of pipeline for the purpose of flow rate control and for daily flow rate calculation.

It is used for pipelining (according to order of built pipeline part testing). It is available to use on the mobile trucks.

There is available the model with interface RS485 to output the registered data to the remote system.

**SET**

**Fluid flow sensor DVU-102**

**Fluid flow sensor DVU-102** is designed to register flow rate according to user-defined timetable scheme, to store them and transfer to registration unit.

Sensor consists of:

- impulse conversion sensor DPI-UZ (1) is mounted on the pipeline with using of joint flange. It converts the flow volume into pulse chain.
- fluid meter SVU-102 (2) is mounted on impulse conversion sensor. It has self-contained power supply, converts impulses into flow rate value, calculates the average flow rate.

**Wellhead pressure gauge GS-AMTU**

GS-MTU is designed to measure and logging the pressure and temperature values according to user-defined timetable scheme.

**Smartphone**

**Registration unit GS-KPK** is designed for real-time on-line control for flow rate changing and pressure changing. It registers the flow rate and pressure and transfers the registered data to PC-computer or send it to central server by GSM.

**Registration unit BR-21M**

**Registration unit BR-21M** is designed to read flow rate data from SVU-102 and for the further transfer data to PC-computer.

**TECHNICAL CAPABILITIES**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipeline fluid pressure range, MPa</td>
<td>0.3 ... 20</td>
</tr>
<tr>
<td>Flow rate range, m³/hour</td>
<td>1 ... 25*, 2 ... 50, 8 ... 200</td>
</tr>
<tr>
<td>Flow rate error, %</td>
<td>0.5 - 1.0</td>
</tr>
<tr>
<td>Pipeline internal diameter, mm</td>
<td>50, 100 **</td>
</tr>
<tr>
<td>Max number of stored points</td>
<td>16000</td>
</tr>
<tr>
<td>Power supply</td>
<td>self-contained (4 batteries)</td>
</tr>
</tbody>
</table>

*Base model characteristics, it is possible to change on customer’s request.

**Above 100mm – made to order**
Remote monitoring automation control system

Automation remote system is designed to monitor and control the remote devices and equipment.

System gathers data from remote wells through sensors and prepare these data to optimize production.

Generally the automation system is used for oil wells equipped with beam pumping units, progressive cavity pump, electronic submersible pump and water injection system.

System provides the liquid level, dynamometer data, pressure and well rate registration, transfers the measured data to the control center by means of GPRS/SMS/WiFi. Also possible the control of equipment for power on/off.

Usage
- It is used to control the flow rate in service oil wells and in pipelines.
- It is possible to synchronize with pressure gauge GS-AMTU.
- Pressure, temperature and flow rate values are available in real-time.

Features of GEOSbor:
- Remote control for equipment
- Remote configuration of controller
- Analysis and preparation of registered data
- Optimization of equipment operation
- Set-points for detection the critical condition and failures
- Wide range of alarms to limit damage from possible failures
- Access to data with the flexible filter
- Export data to the customer database