

MODBUS RTU TEST APPLICATION

ModbusRTUtest application checks the communication with Probe using Modbus RTU.

To run test do as follows:

1. Run PROBE_GatewayPC.
2. Select Modbus RTU from "select protocol" menu.
3. Exit PROBE_GatewayPC and run ModbusRTUtest.
4. Select register to read:
 - 79 Ultrasonic Probe echo timer
 - 108 Microwave Probe echo timer
 - 100 4 mA calibration timer
 - 96 20 mA calibration timer
 - 309 current in mA for Radar and Ultrasonic, top of oil (*100 factor) for oil-water interface detector
 - 328 current in mA oil-water interface (*100 factor) for oil-water interface detector
 - 329 current in mA for Mini Ultrasonic (*100 factor)
 - 324 distance in inches for Radar, top of oil (*100 factor) for oil-water interface detector
 - 330 distance in inches oil-water interface (*100 factor) for oil-water interface detector
 - 322 distance in inches for Ultrasonic (*100 factor)
 - 342 distance in inches for Mini Ultrasonic (*100 factor)

In many PLCs decimal 1 is added to the above registers' addresses and decimal 40 in front, for example 40325 is register 324

5. Select COM Port and Sensor ID as required.

The communication protocol is:

Request from ModbusRTUtest sent to Probe:

Byte 1: ID=2

Byte 2: FC=3

Byte 3: Register Address HI=0

Byte 4: Register Address LO=79 (REGISTER TO BE READ)

Byte 5: Number of points HI=0

Byte 6: Number of points LO=1

Byte7&8 CRC

Response from Probe:

Byte 1: ID=2

Byte 2: FC=3

Byte 3: NB. OF BYTES =2

Byte 4: Data byte HI= probe echo timer high byte (decimal)

Byte 5: Data byte LO= probe echo timer low byte (decimal)

Byte 6&7 CRC