

How to connect meter supporting protocol IEC 62056-21 to 2N® SmartCOM PRO ETH?

tested with meter supporting IEC 62056-21 (ZPA ED 310) and 2N® SmartCOM PRO ETH with firmware SCE_101.1 2.0.12.24 supporting AMS features.

- check whether is AMS enabled, if not enter command AT^SCAMS="ENABLE",1

AT^SCAMS?

^SCAMS: "ENABLE",1

^SCAMS: "RETRY",0

^SCAMS: NO DEVICE

- check setting of your RS485 port, tested meter works on default baudrate 300

AT^SCPORT2="BAUDRATE",300

OK

AT^SCPORT2="SRESTART"

OK

AT^SCPORT2?

^SCPORT2: "BAUDRATE",300

^SCPORT2: "DATA_BITS",8

^SCPORT2: "STOP_BITS",1

^SCPORT2: "PARITY",0

- add your device to 2N® SmartCOM PRO ETH AMS table (serial number rested meter 04869551)

AT^SCAMS="DEV_ADD",2,"IEC62056-21","869551","1M"

2N® SmartCOM PRO ETH connect each minute to meter and save results to memory

- result are stored in 2N® SmartCOM PRO ETH internal memory

AT^SCDATA="GET_OLDEST",1

^SCDATA: "AMS",1463246887,48962,"IEC62056-21",1,0,"ZE310.iv30_012","F.F(000000)

C.1.0(04869551)

C.90(869551)

1.8.1(0000002.7#kWh)

1.8.2(0000002.0*kWh)

1.8.0(0000004.8*kWh)

2.8.1(0000000.9#kWh)

2.8.2(0000000.5*kWh)

2.8.0(0000001.5*kWh)

C.9.3(12-04-24 09:01)

C.7.1(0003)
C.7.2(0101)
C.7.3(0101)
C.7.0(0121)
0.3.3(000250.00*i\kWh)
0.2.1(ED310_I_DR_30)
C.8.1(00000001:24#h:min)
C.8.2(00000000:30*h:min)
C.8.0(00000001:54*h:min)
C.82.1(00000000:29#h:min)
C.82.2(00000000:08*h:min)
C.82.0(00000000:37*h:min)
C.50(00000813:53*h:min)
31.6.0(005.875*A)
51.6.0(005.867*A)
71.6.0(005.875*A)
21.6.0(001.349*kW)
41.6.0(001.349*kW)
61.6.0(001.349*kW)
0.6.0(1)
0.4.2(001)
"
OK

General AMS errors	
0	- without error
1	- error of input data
2	- error of output data
3	- protocol cannot be used for this port
4	- readout not started

IEC 62056-21 AMS errors	
65536	- internal error
65537	- readout was stopped by user
65538	- bad format address of the device
65539	- not supported character, that describe communication speed in the device answer
65540	- communication port was not set
65541	- timeout - Identification message not arrived
65542	- the device using unsupported AMS mode
65543	- timeout - Acknowledgement/option select message
65544	- speed was not set
65545	- timeout while receiving two consecutive characters of the message
65546	- timeout while receiving two messages
65793	- not supported character in the field "Manufacturer's identification" of received "Identification message"
65794	- not supported character in the field Baud rate identification of received "Identification message"
65795	- not supported character in the field Identification of received "Identification message"
65796	- not supported character in the fields "CR" and "LF" of received "Identification message"
66049	- not supported character in the field "Data block" of received "Data message"
66050	- internal AMS buffer overflow because too long "Data block" of received "Data message"
66051	- not supported character in the fields "CR" and "LF" of received "Data message"
66052	- not supported character in the field "ETX" of received "Data message"
66053	- field "BCC" of received "Data message" is not equal to calculated check character

More product information:

2N® SmartCom (Official Website 2N)

2N® SmartCom PRO (Official Website 2N)