

# How to connect M-Bus device to 2N® SmartCOM PRO ETH?

tested with M-Bus electricity (Inepro PRO380-Mb) and 2N® SmartCOM PRO ETH with firmware SCE\_1.12.0.12.24 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`

- A) use AT command for detecting connected M-Bus devices

`AT^SCAMSADD=<PORT>,<PROTOCOL>,<BAUDRATE>,<INTERVAL>,<NUMBER_OF_EXPECTED_DEVICES>`

`AT^SCAMSADD=2,"MBUS",2400,"1M",1`

`^SCAMSADD: 65286,1,"1,15020416"`

2N® SmartCOM PRO ETH detected 1 meter with secondary address 15020416 and add this device to the table

`AT^SCAMS?`

`^SCAMS: "ENABLE",1`

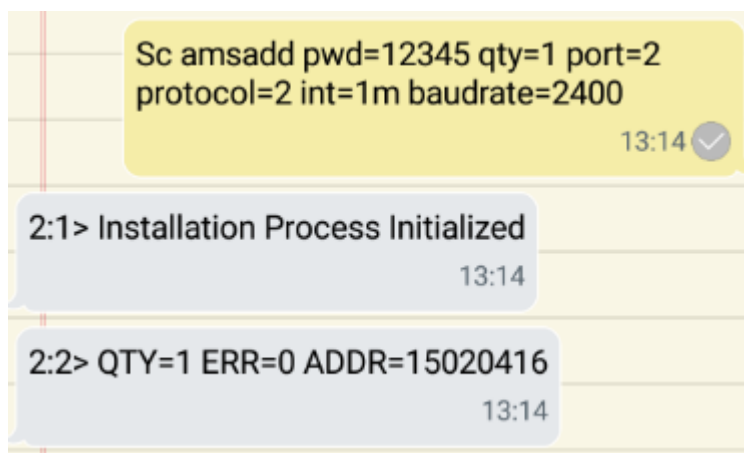
`^SCAMS: "RETRY",0`

`^SCAMS: "DEV_CNT",1`

`^SCAMS: 1> 2,"MBUS","*15020416@2400","1M"`

- B) use SMS for detecting connected M-Bus devices

`SC AMSADD PWD=<password> QTY=<n> PORT=<port> PROTOCOL=<protocol> INT=<interval>`  
`[BAUDRATE=<baudrate>] BAUDRATE is optional`



2N® SmartCOM PRO ETH detected 1 meter with secondary address 15020416 and add this device to the table

- result are stored in 2N<sup>®</sup> SmartCOM PRO ETH internal memory

AT^SCDATA="GET\_OLDEST",3

^SCDATA:

"AMS",1467365701,10506,"MBUS",1,0,"", "684B4B680801721604021592B00102090000000C04790200008C1004790200008C2004000000001C04660300009C1004660300009C2004000000002C0487000000AC100487000000AC2004000000008016"

^SCDATA:

"AMS",1467365762,10508,"MBUS",1,0,"", "684B4B680801721604021592B001020A00000000C04790200008C1004790200008C2004000000001C04660300009C1004660300009C2004000000002C0487000000AC100487000000AC2004000000008116"

^SCDATA:

"AMS",1467365822,10509,"MBUS",1,0,"", "684B4B680801721604021592B001020B00000000C04790200008C1004790200008C2004000000001C04660300009C1004660300009C2004000000002C0487000000AC100487000000AC2004000000008216"

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

M-Bus AMS errors	
131072	- non specific error (internal error of module)
131073	- readout was stopped by user
131074	- bad format address and speed of the device
131075	- parameters of the port were not set
131076	- message "SND_NKE" was not send in defined time interval to the device
131077	- message "SND_NKE" was not send in defined time interval to the device
131078	- timeout - receiving "SND_NKE" message response
131079	- bad frame when receiving "SND_NKE" message from the device
131080	- message "REQ_UD2" was not send
131081	- message "REQ_UD2" was not send
131082	- timeout - receiving "REQ_UD2" message response
131083	- incorrect communication frame for "REQ_UD2" message
131084	- incorrect response for "REQ_UD2" message
131085	- incorrect device address in response for "REQ_UD2" message
131086	- message "SND_UD slave selection" was not send in defined time interval
131087	- message "SND_UD slave selection" was not send in defined time interval
131088	- timeout - receiving "SND_UD slave selection" message response
131089	- bad frame for "SND_UD slave selection" response message
131090	- message "SND_UD slave selection" was not send in defined time interval during searching slaves on bus
131091	- message "SND_UD slave selection" was not send in defined time interval during searching slaves on bus
131092	- message "REQ_UD2" was not send in defined time interval during searching slaves on bus
131093	- message "REQ_UD2" was not send in defined time interval during searching slaves on bus
131094	- collision of secondary addresses during searching slaves on bus (two or more devices have same secondary address)
131329	- bad first "start" byte for device´s response message
131330	- bad second "start" byte for device´s response message
131331	- bad first "stop" byte for device´s response message
131332	- bad checksum of the response frame
131333	- bad value of the response frame length
131334	- bad value of the response frame length

More product information:

2N® SmartCom (Official Website 2N)

2N® SmartCom PRO (Official Website 2N)