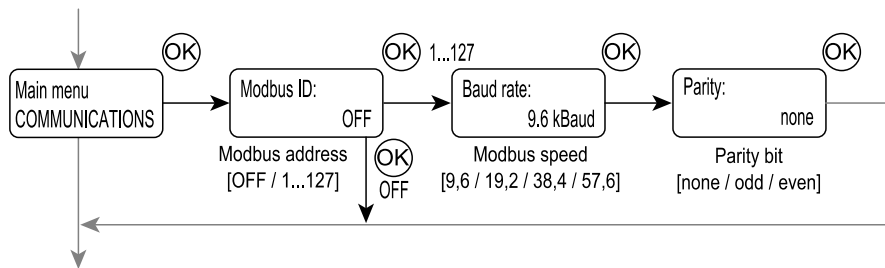
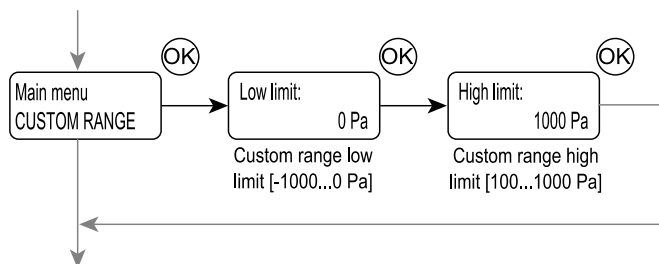


Communications menu (M models only)



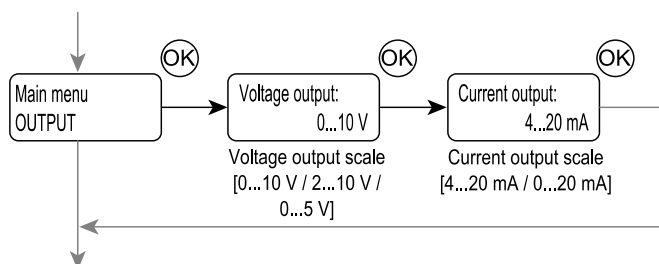
The Modbus settings can be changed through the COMMUNICATIONS menu.

Custom range menu



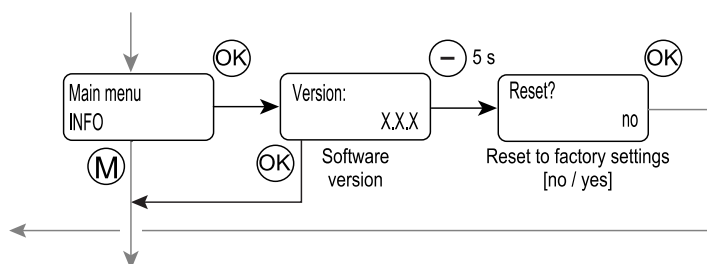
The CUSTOM RANGE menu is for setting the custom pressure range limits. The custom range is in use when all the pressure range selection jumpers are placed.

Output menu



You can change the measurement output scales through the OUTPUT menu.

Info menu



The INFO menu can be used for checking the software version and resetting to the factory settings.

Resetting to the factory settings

1. Press the "-" button for five seconds in the software version display.
2. Change the resetting dialog answer to "yes".
3. Press OK button.

The factory settings are now reset.

MODBUS

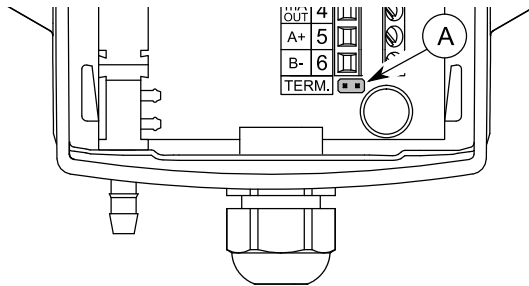
Bus properties

Protocol	RS-485 Modbus RTU
Bus speed	9600/19200/38400/57600 bit/s
Data bits	8
Parity	none/odd/even
Stop bits	1
Network size	up to 127 devices per segment

NOTE: The memory durability is 10000 write cycles.

Bus termination

The Modbus can be terminated by placing the Modbus termination jumper.



A. Modbus termination jumper

Supported Modbus functions

0x01	Read Coils
0x02	Read Discrete Inputs
0x03	Read Holding Registers
0x04	Read Input Registers
0x05	Write Single Coil
0x06	Write Single Register
0x0F	Write Multiple Coils
0x10	Write Multiple Registers
0x17	Read/Write Multiple Registers

Modbus registers

Data type:

bit = 0 or 1
 unsigned = unsigned integer (0...65535)
 signed = integer (-32768...32767)

Input registers (read only)

Register	Parameter description	Data type	Value	Range
30001	Pressure measurement	signed	-32768...32768	-32768...32768 Pa
30002	Time constant	unsigned	0...60	0...60 s
30003	Selected pressure range	unsigned	0...7	0 = -50...50 Pa 1 = -100...100 Pa 2 = -250...250 Pa 3 = -500...500 Pa 4 = 0...100 Pa 5 = 0...200 Pa 6 = 0...500 Pa 7 = 0...1000 Pa / custom *)
30004	Measurement output	signed	0...1000	0...100,0 %

*) The custom range is 0...1000 Pa as a default. The range can be changed by using ML-SER tool or by defining the limits to the Modbus registers 40001...40002.

Holding registers (read / write)

Register	Parameter description	Data type	Value	Range	Default
40001	Custom scale low limit	signed	-10...0	-1000...0 Pa	0
40002	Custom scale high limit	signed	1...10	100...1000 Pa	10
40003	Voltage output scale	unsigned	0 - 1 - 2	0 = 0...10 V 1 = 2...10 V 2 = 0...5 V	0
40004	Current output scale	unsigned	0 - 1	0 = 4...20 mA 1 = 0...20 mA	0