program-step	input-range	function
P14		**delay time relay 1**
	d0.0	0 sec. delay time
	•	
	•	
	d9.9	9.9 sec. delay time
P15		**upper limit relay 2** adjustment just like before
P16		**lower limit relay 2**
P17		**delay time relay 2**

Default setting 1:

C02 = 2 (2 measuring inputs) P03 = 2 P07 = 0.00
C03 = 0 (no relay) P04 = 10.00 P08 = 0
P01 = 0 P05 = -10.00 P09 = 1.6
P02 = 3 P06 = 3.00

Default setting 2:

C02 = 2 (2 measuring inputs) P02 = 2 P05 = -10.00 P08 = 0
C03 = 0 (no relay) P03 = 2 P06 = 2.50 P09 = 1.6
P01 = 0 P04 = 10.00 P07 = 0.00

Default setting 3:

C02 = 2 (2 measuring inputs) P03 = 2 P07 = 0.00 P11 = 1
C03 = 1 (1 relay) P04 = 10.00 P08 = 0 P12 = -0.05
P01 = 0 P05 = -10.00 P09 = 1.6 P13 = 0.00
P02 = 2 P06 = 4.00 P10 = 0 P14 = d0.0

Default setting 4:

C02 = 1 (1 measuring input) P02 = 0 P05 = -1.00 P08 = 0
C03 = 0 (no relay) P03 = 2 P06 = 9.00 P09 = 0.4
P01 = 0 P04 = 9.00 P07 = -1.00

Default setting 5:

C02 = 1 (1 measuring input) P03 = 2 P07 = 0.00 P11 = 1
C03 = 1 (1 relay) P04 = 4.00 P08 = 0 P12 = 0.00
P01 = 1 P05 = 0 P09 = 1.6 P13 = 0.00
P02 = 1 P06 = 4.00 P10 = 0 P14 = d0.0

Default setting 6: flow-tronic

C02 = 2 (2 measuring inputs) P03 = 2 P07 = 0.00
C03 = 0 (no relay) P04 = 10.00 P08 = 0
P01 = 0 P05 = -10.00 P09 = 1.6
P02 = 3 P06 = 3.00
(in this default setting the display will only show „-on-“)

The parameters C02 and C03 are fixed by factory settings.

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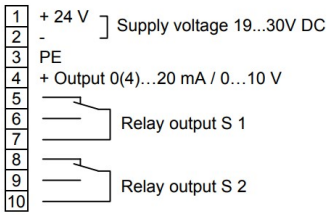
After power-up main voltage the device is working including limit comparison. The display consists of LED – digital readout, +/- 1999 with zero suppression. Display refreshes 2,5 times per second.

Limit setting

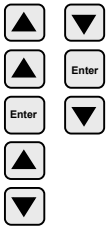
By pressing and holding the enter-button and additional pressing the arrow-up key, the limit can be set (P01=1). The upper left segment (f) of the left digital display is flashing and the LED S1 glowing. With the arrow-buttons the upper limit can be adjusted in the range of measurement. After confirm by pressing the enter-button the lower segment (e) is flashing and requests to enter the lower limit.

- If the lower limit is greater than the upper limit the relay and the LED react in the opposite way.
- After confirm by pressing the enter-button the relay delay d0.0...d9.9 can be adjusted.
- By more than one relay inside then device, the procedure repeats. After the last request the device goes back to the measuring mode.
- If the uppper and the lower limit are the same, the relay is without function.
- If P01=0 the program-steps are the same as above, but the values can only be viewed and not be changed
- The device will switch back to measuring mode, when the last button operation was 10 seconds ago.

Electrical connection



Keyfunction in measuring mode



for about 3 sec.

display of software release Pr. 2.0

limit setting respectively check

zero adjust for digital display and analog output

display of static pressure pos. input for about 3 seconds.

display of static pressure neg. input for about 3 seconds.
only if C02=2

error messages
Er01 = serial interface
Er02 = faulty zero adjust
Er03 = faulty final value
Error messages above Er50 and Er_P refer to system internal messages. Error message Er50 can be solved by changing the values in the parameter mode or a complete reset of the device (Default setting 7). Er_P refers to a hardware issue and needs inspection from Nöding
All error messages must be general confimed by pressing the enter-button or by switching off the main voltage.

PDM 80 parameter mode

To reach the parameter mode, the buttons Enter ▼ must be pressed and holded and additional the button ▲ must be pressed.

The first parameter step will be displayed for about1 second. With the arrow-buttons the value can be adjusted and with the return-button the value will be stored and the display skips over to P02. After the last parameter step, the display starts again with P01. To leave this mode just press the buttons like it was done before to enter the parameter mode, after that the device will go back to measuring mode.

To change the values through wide ranges, it is useful to press and hold the arrow buttons for a while, because the values will change faster.

program-step	input-range	function
P00		**fix default settings**
	0	no default settings
	1	default setting 1
	2	default setting 2
	3	default setting 3
	4	default setting 4
	5	default setting 5
P01		**authorization for limit settings**
	0	parameter mode
	1	parameter and measuring mode
P02		**analog output**
	0	0...20 mA/0...10 V
	1	4...20 mA/2...10 V
	2	0...20 mA/0...10 V at pos. &. neg. differential pressure
	3	4...20 mA/2...10 V at pos. &. neg. differential pressure
P03		**resolution digital display**
	0	without decimal point
	1	1 decimal point
	2	2 decimal point
	3	3 decimal point
P04		**final value digital display**
	-1999	-1999 bar
	•	•
	•	•
	0	0
	•	•
	•	•
	1999	+1999 bar
P05		**start value digital display**
	-1999	-1999 bar
	•	•
	•	•
	0	0
	•	•
	•	•
	1999	+1999 bar
P06		**final value analog output**
	-1999	-1999 bar
	•	•
	•	•
	0	0
	•	•
	•	•
	1999	+1999
P07		**start value analog output**
	-1999	-1999
	•	•
	•	•
	0	0
	•	•
	•	•
	+1999	+1999
P08		**average value, analog output**
	0	without average value
	1	with average value
P09	0.1	0.1 sec.
	0.2	0.2 sec.
	0.4	0.4 sec.
	0.8	0.8 sec.
	1.6	1.6 sec.
	3.2	3.2 sec.
P10		**relay function**
	0	operating current
	1	no-load current
P11		**average value relays**
	0	without average value
	1	with average value
P12		**upper limit relay 1**
	-1999	+1999
	•	•
	•	•
	0	0
	•	•
	•	•
	1999	+1999

LED 1 glows and segment f is flashing

program-step	input-range	function
P13		**lower limit relay 1**
	-1999	-1999
	•	•
	•	•
	0	0
	•	•
	•	•
	1999	+1999

LED 1 glows and segment f is flashing