

Leporello (- 2 -) (- 3 -)

SITRANS P_DS III series
Operating instructions
in brief A5E00047093-03

Please refer to the Instruction Manual prior to installation and startup!

- A5E00047090 (D)
- A5E00047092 (GB)
- A5E00053218 (F)
- A5E00053219 (I)
- A5E00053220 (E)

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Connection box

- 2 -

Keyboard (setting without display)

- 3 -

Digital display

- 4 -

Legend 1-15

- 1 Screen connection
- 2 (+) power supply
- 3 (-) power supply
- 4 Test plug for external DC ammeter
- 5 Mode key
- 6 Increment key
- 7 Decrement key
- 8 Measured value
- 9 Dimension/bar graph
- 10 Flow measurement
- 11 Mode
- 12 Lower current limit
- 13 Sign for measured value
- 14 Upper current limit
- 15 Communication display

C	Constant current mode
L	Read-only
LA	Keyboard disabled
LI	Only MA can be set
LS	Only ME can be set
LT	Keyboard disabled (in-able only via HART)

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Operation

MA = start-of-scale ME = full-scale

Display mode in mA % pressure	
M2 Set and adjust MA ^{1) 2) 4)}	
M3 Set and adjust ME ^{1) 2) 4)}	
M4 Adjust damping ^{1) 2)}	
M5 Adjust MA without pressure ^{1) 2)}	
M6 Adjust ME without pressure ^{1) 2)}	
M7 Zero adjustment ^{2) 4)}	

M = Mode

¹⁾ [M] Save value
⁴⁾ [↑] and [↓] Set value

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Operation

M8	Current transm. ↑ and ↓ for 2 s ^{2) 3)}
M9	Fault current upper/lower ^{1) 2)}
M10	Keyboard disabling, read-only ^{1) 2)}
M11	Square root ^{1) 2)}
M12	Start of square-rooting ^{1) 2)}
M13	mA % measuring mode ^{1) 2)}
M14	mA % dimension ^{1) 2)}

²⁾ [↑] or [↓] change value
³⁾ [M], exit without saving

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Setting start of scale and full scale

A Initial situation
0 4 8 12 16 20 mA
0 2 4 6 8 10 12 14 16 bar

B Setting start of scale (p. e. 2 bar)
0 4 8 12 16 20 mA
0 2 4 6 8 10 12 14 16 bar

C Setting full scale (p. e. 14 bar)
0 4 8 12 16 20 mA
0 2 4 6 8 10 12 14 16 bar

D Calculating output current: $\frac{11 \text{ bar} - 2 \text{ bar}}{14 \text{ bar} - 2 \text{ bar}} \cdot 16 \text{ mA} + 4 \text{ mA} = 16 \text{ mA}$
(p. e. 11 bar)

Prerequisite: see Instruction Manual, Section 3

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Setting start of scale: Select mode 02

Apply pressure corresponding to MA to the transmitter

[↑] and [↓] Keep pressed for 2 s to set MA to 4 mA

Setting full scale: Select mode 03

Apply pressure corresponding to ME to the transmitter

[↑] and [↓] Keep pressed for 2 s to set ME to 20 mA

Note: the keys may be disabled! Remove keyboard disabling See page 3

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Adjusting start of scale: Select mode 02

Apply reference pressure

Connect DC ammeter (recommended)

Adjust MA using [↑] or [↓] (variable speed) and save MA using [M]

Adjusting full scale: Select mode 03

Apply reference pressure

Connect DC ammeter (recommended)

Adjust ME using [↑] or [↓] (variable speed) and save ME using [M]

Adjust current according to calculation formula, see Instruction Manual, Section 3

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Setting start of scale without application of pressure: Select mode 05

Set start-of-scale value to the lower sensor limit using [↑] and [↓] (2 s)

Press [M], save value

Setting full scale without application of pressure: Select mode 06

Set full-scale value to the upper sensor limit using [↑] and [↓] (2 s)

Press [M], save value

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Adjusting start of scale without application of pressure: Select mode 05

Adjust pressure which is to correspond to MA using [↑] or [↓] (variable speed)

Press [M], save value

Adjusting full scale without application of pressure: Select mode 06

Adjust pressure which is to correspond to ME using [↑] or [↓] (variable speed)

Press [M], save value

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Zero adjustment: Select mode 07

Vent transmitter or adjust known reference pressure (absolute pressure < 0.1 % of span)

Set Zero using [↑] and [↓]

Adjust Zero using [↑] and [↓]

Press [M], save value

Ex Data

See Instruction Manual and conformity certificates! (see page - 1 -)

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Application point of the square rooting characteristic

Parameter range for application point

- 1) Linear up to application point
- 2) application point for 3) fixed application point
- 3) Slowly increasing linear up to application point

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FW/HW releases

can be read from the approval label:

FW: aa . bb . cc

- aa - FW release
- bb - Document revision
- cc - Device type

HW: xx . yy . zz

- xx - Compatibility identifier
- yy - Connecting board version
- zz - Serial number

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