

MINING ► PRESSURE

PEM-EX-L

DESCRIPTION



The PEM-EX-L is a robust and safe pressure meter for general mining applications.

The measuring device can be used to measure relative and absolute pressures in liquid and gaseous media.

The device can be installed in any position and with its compact dimensions, it can be mounted and commissioned even in the most difficult installation locations.

The PEM-EX-L is a compact device with selectable electrical connections and different signal outputs.

The device is completely encapsulated except for the electrical connection space and therefore maintenance-free.

For the connection to the Kirchgaesser multiple evaluation and display unit COMBA-EX there is the device type PEM-EX-C available.

- Pressure measuring range:
 - 0 ... 40 mbar up to 0 ... 600 bar
 - -1 ... +1 bar up to -1 ... +5 bar
 - With/without atmospheric pressure equalization
 - With/without mechanical damping
- Measuring uncertainty:
 - Maximum $\pm 1\%$ of end value
 - Typical $\pm 0.5\%$ of end value
- Ambient and process temperature:
 - -20 ... +70 °C (-4 ... +158 °F)
- Process connection
 - Socket nipple DN10
 - G 1/4, G 1/2, G 1 1/4
 - Plug-in sleeve DN6
 - Flange DN40 PN6 with extension
 - Hydrostatic measuring sensor
- Material:
 - Housing: Stainless steel 1.4301
 - Connectors: Metal and plastic
 - Connection head: Plastic
- Protection (according to EN 60529):
 - IP65
- Power supply:
 - Solid-state relay:
 - 8.0 ... 13.5 VDC / 18.5 VDC
 - 2-wire device 4 - 20 mA:
 - 8.0 ... 13.5 VDC
 - 2-wire device 4 - 20 mA with external separator (max. 100 mA / 1 W):
 - 8.0 ... 30.0 VDC
- Signal outputs:
 - Solid-state relay 5 - 15 Hz
 - Current 4 - 20 mA
- Electrical connection:
 - Connection head
 - Souriau connector series 845 size 1
 - Hirschmann connector G4
 - Fixed connection cable
- Approval:
 - ATEX
 - IECEx

A complete description of all device features can be found in the corresponding operating manual ba054100a1.

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FEATURES
Available measuring ranges

Code	Measuring range	Overpressure limit	Process connection	AD
AA	0 ... 40 mbar	-0.3 ... 4 bar	D, F, H, J	✓
AB	0 ... 60 mbar	-0.3 ... 4 bar	D, F, H, J	✓
AC	0 ... 100 mbar	-0.3 ... 4 bar	D, F, H, J	✓
AK	0 ... 100 mbar	-0.3 ... 4 bar	D, F, H, J	×
AD	0 ... 160 mbar	-0.6 ... 5 bar	D, F, H, J	✓
AM	0 ... 160 mbar	-0.6 ... 5 bar	D, F, H, J	×
AE	0 ... 250 mbar	6 bar	D, F, H, J	✓
AN	0 ... 250 mbar	6 bar	D, F, H, J	×
AF	0 ... 400 mbar	1.6 bar	A, B, C	✓
EA	0 ... 400 mbar	1.6 bar	A, B, C	×
AG	0 ... 400 mbar	6 bar	D, F, H, J	✓
AO	0 ... 400 mbar	6 bar	D, F, H, J	×
AH	0 ... 600 mbar	2.4 bar	A, B, C	✓
EB	0 ... 600 mbar	2.4 bar	A, B, C	×
AJ	0 ... 600 mbar	10 bar	D, F, H, J	✓
AP	0 ... 600 mbar	10 bar	D, F, H, J	×
CA	0 ... 1 bar	4 bar	A, B, C, E	✓
EC	0 ... 1 bar	4 bar	A, B, C, E	×
CB	0 ... 1 bar	10 bar	D, F, H, J	✓
ED	0 ... 1 bar	10 bar	D, F, H, J	×
CC	0 ... 1,6 bar	6.4 bar	A, B, C, E	✓
EE	0 ... 1,6 bar	6.4 bar	A, B, C, E	×
CD	0 ... 1,6 bar	18 bar	D, F, H, J	✓
AR	0 ... 1,6 bar	18 bar	D, F, H, J	×
CE	0 ... 2,5 bar	10 bar	A, B, C, E	✓
EF	0 ... 2,5 bar	10 bar	A, B, C, E	×
CF	0 ... 2,5 bar	18 bar	D, F, H, J	✓
AS	0 ... 2,5 bar	18 bar	D, F, H, J	×

Code	Measuring range	Overpressure limit	Process connection	AD
CG	0 ... 4 bar	16 bar	A, B, C, E	✓
EG	0 ... 4 bar	16 bar	A, B, C, E	×
CH	0 ... 4 bar	25 bar	D, F, H	✓
EH	0 ... 4 bar	25 bar	D, F, H	×
CJ	0 ... 6 bar	24 bar	A, B, C, E	✓
EJ	0 ... 6 bar	24 bar	A, B, C, E	×
CK	0 ... 6 bar	40 bar	D, F, H	✓
AT	0 ... 6 bar	40 bar	D, F, H	×
CL	0 ... 10 bar	40 bar	A, B, C, E	✓
EK	0 ... 10 bar	40 bar	A, B, C, E	×
DB	0 ... 10 bar	40 bar	D, F, H	✓
EL	0 ... 10 bar	40 bar	D, F, H	×
CM	0 ... 16 bar	64 bar	A, B, C, E	×
CN	0 ... 16 bar	40 bar	D, F, H	×
CO	0 ... 25 bar	100 bar	A, B, C, E	×
CP	0 ... 25 bar	40 bar	D, F, H	×
CR	0 ... 40 bar	160 bar	A, B, C, E	×
CS	0 ... 40 bar	60 bar	D, F	×
CT	0 ... 60 bar	240 bar	A, B, C, E	×
CU	0 ... 60 bar	105 bar	D, F	×
CV	0 ... 100 bar	400 bar	A, B, C, E	×
CW	0 ... 160 bar	600 bar	A, B, C, E	×
CX	0 ... 250 bar	600 bar	A, B, C, E	×
CY	0 ... 400 bar	600 bar	A, B, C, E	×
CZ	0 ... 600 bar	800 bar	A, B, C, E	×
GA	-1 ... +1 bar	8 bar	A, B, C, E	✓
GB	-1 ... +1 bar	10 bar	D, F, H	✓
GC	-1 ... +5 bar	24 bar	A, B, C, E	✓
GD	-1 ... +5 bar	25 bar	D, F, H	✓

AD = Atmospheric pressure balance

Available device variants

- Measuring range: Other measuring ranges or higher overrange limits are optionally available.
- Electrical connection
 - The cable length must only be selected for the electrical connection option **J** = fixed connection cable.
 - The electrical connection **A** = connection head with terminals is only with the type of housing **1** = L available.
- Electrical connection, potential-separation and output function:
 - The electrical connection **D** = Souriau series 845, size 1 is not available with potential-separation for the output function **A** = solid-state relay.
 - The output function **B** = current output is not available with potential-separation.

Notice!

For further information on the available variants, please refer to the operating instructions ba054100a1.

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DIMENSIONS

