PEMEX-LC

Figure: PEMEX-LC**GCF*

Figure: PEMEX-LC**PDS*

- Robust and safe pressure meter for general mining applications
- The various versions of the device are used to measure relative and absolute pressures in liquid and gaseous media.
- Housing: Stainless steel
- Pressure measuring ranges: 0 .. 40 mbar to 0 .. 600 bar
- Process connection, sensor:

  • Pipe thread G1¼, flush-mounted ceramic sensor,
  • Pipe thread G½, internal ceramic sensor,
  • Pipe thread G½, flush-mounted thinfilm sensor,
  • Pipe thread G½, internal thinfilm sensor or
  • Socket nipple DN10 (acc. to DIN 20043), thinfilm sensor
- Electrical connection:

  • Terminals and cable gland,
  • Fixed cable connection,
  • Machaczek connector type ME*,
  • PROMOS connector type BN4160,
  • Hydrostar connector type SKK24,
  • Binder connector series 723
  • Hirschmann connector type G4 or
  • Souriau connector series 845
- Power supply:

  Max. 12.5 VDC (PEMEX-LC*L*) or 18.5 VDC (PEMEX-LC*H*)
- Output signal:

  • Frequency 5 .. 15 Hz,
  • Voltage 1 .. 5 V or
  • Voltage 1 .. 10 V
- Marking according to 94/9/EC:
  I M1 EEx ia I (DMT 02 ATEX E 213)

Ordering information **PEMEX-LC**

10	Output signal
F	Frequency
U	Voltage

20	Power supply *6
L	8.0 VDC ≤ Ui ≤ 12.5 VDC
H	10.0 VDC ≤ Ui ≤ 18.5 VDC

30	Electrical connection
B	Binder connector series 723
F	Fixed cable *4
G	Hirschmann connector type G4A5M
H	Hydrostar connector type SKK24
K	Terminals with cable gland
M3	Machaczek connector type ME1A10
M6	Machaczek connector type ME2A10
P	PROMOS connector type BN 4160
S	Souriau connector series 845, size 1

40	Type of transducer
C	Ceramic
D	Thinfilm

50	Type of diaphragm
F	Flush-mounted
I	Internal
S	Socket nipple *3
SD	Socket nipple with mechanical damping *3,5

60	Measuring range
__	See table of available ranges

70	Output voltage *2,6
05V	1 .. 5 VDC
10V	1 .. 10 VDC

80	Special version *1
S	Special version, to be specified

Complete order code:

PEMEX - LC							*2	*1

*1 *Only necessary with deviations from order code pos. **10** to **70***
*2 *Only necessary with PEMEX-LCU**
*3 *Socket nipple only available with thinfilm transducer*
*4 *Type of cable: LiYCY , standard cable length 3 m (other types and lengths are available on request)*
*5 *Time constant ≈ 20 ms*
*6 *See technical data for variant-specific limitations*

Note!
The output signal of the devices PEMEX-LC**B*, -LCU*F*, -LC**G*, -LC**M3*, -LC**P* and -LC**S* are not potential-separated from the power supply!

Ordering examples:

1. PEMEX-LCFLKDS600b

- Frequency output 5 .. 15 Hz
- Power supply 8.0 .. 12.5 VDC
- Electrical connection with terminals
- Thinfilm transducer
- Process connection with socket nipple DN10
- Measuring range 0 to 600 bar

2. PEMEX-LCUHGCI-1+5b10V

- Voltage output 1 .. 10 V
- Power supply 12.0 .. 18.5 VDC
- Electrical connection with Hirschmann connector type G4A5M
- Ceramic transducer with internal diaphragm
- Measuring range -1 to +5 bar

Available measuring ranges:

with thinfilm transducer			with ceramic transducer		
measuring range	overrange limit	code	measuring range	overrange limit	code
0 .. 400 mbar	1.6 bar	**400m**	0 .. 40 mbar	-0.3 / 4 bar	**040m**
0 .. 600 mbar	2.4 bar	**600m**	0 .. 60 mbar	-0.3 / 4 bar	**060m**
0 .. 1 bar	4 bar	**001b**	0 .. 100 mbar	-0.3 / 4 bar	**100m**
-1 .. +1 bar	8 bar	**-1+1b**	0 .. 160 mbar	-0.6 / 5 bar	**160m**
-1 .. +5 bar	24 bar	**-1+5b**	0 .. 250 mbar	6 bar	**250m**
0 .. 1.6 bar	6.4 bar	**01b6**	0 .. 400 mbar	6 bar	**400m**
0 .. 2.5 bar	10 bar	**02b5**	0 .. 600 mbar	10 bar	**600m**
0 .. 4 bar	16 bar	**004b**	0 .. 1 bar	10 bar	**001b**
0 .. 6 bar	24 bar	**006b**	-1 .. +1 bar	10 bar	**-1+1b**
0 .. 10 bar	40 bar	**010b**	-1 .. +5 bar	25 bar	**-1+5b**
0 .. 16 bar	64 bar	**016b**	0 .. 1.6 bar	18 bar	**01b6**
0 .. 25 bar	100 bar	**025b**	0 .. 2.5 bar	18 bar	**02b5**
0 .. 40 bar	160 bar	**040b**	0 .. 4 bar	25 bar	**004b**
0 .. 60 bar	240 bar	**060b**	0 .. 6 bar	40 bar	**006b**
0 .. 100 bar	400 bar	**100b**	0 .. 10 bar	40 bar	**010b**
0 .. 160 bar	600 bar	**160b**	0 .. 16 bar	40 bar	**016b**
0 .. 250 bar	600 bar	**250b**	0 .. 25 bar	40 bar	**025b**
0 .. 400 bar	600 bar	**400b**	0 .. 40 bar	60 bar	**040b**
0 .. 600 bar	800 bar	**600b**	0 .. 60 bar	105 bar	**060b**

Other measuring ranges or higher overrange limits are optionally available!

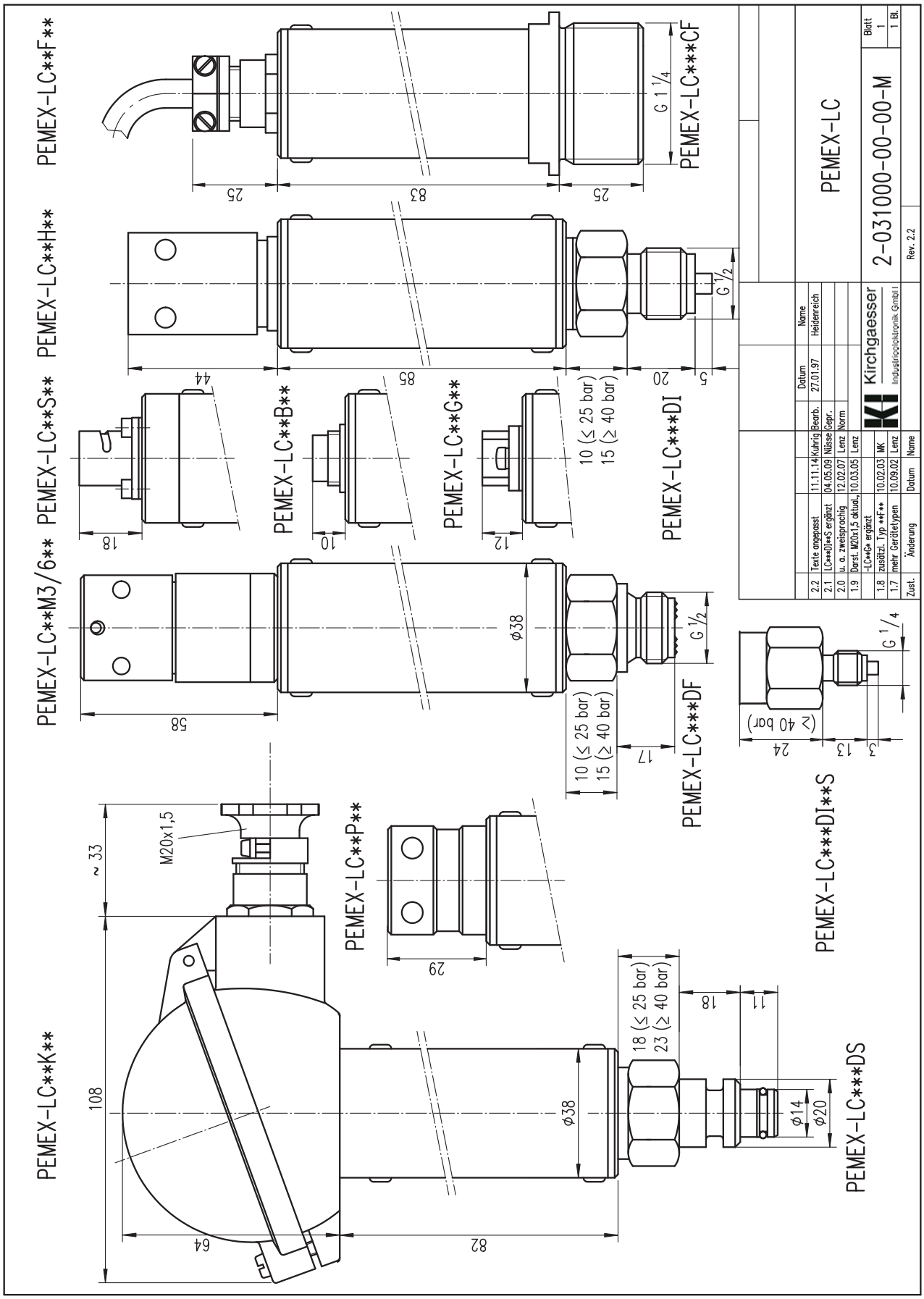
Technical data (general):

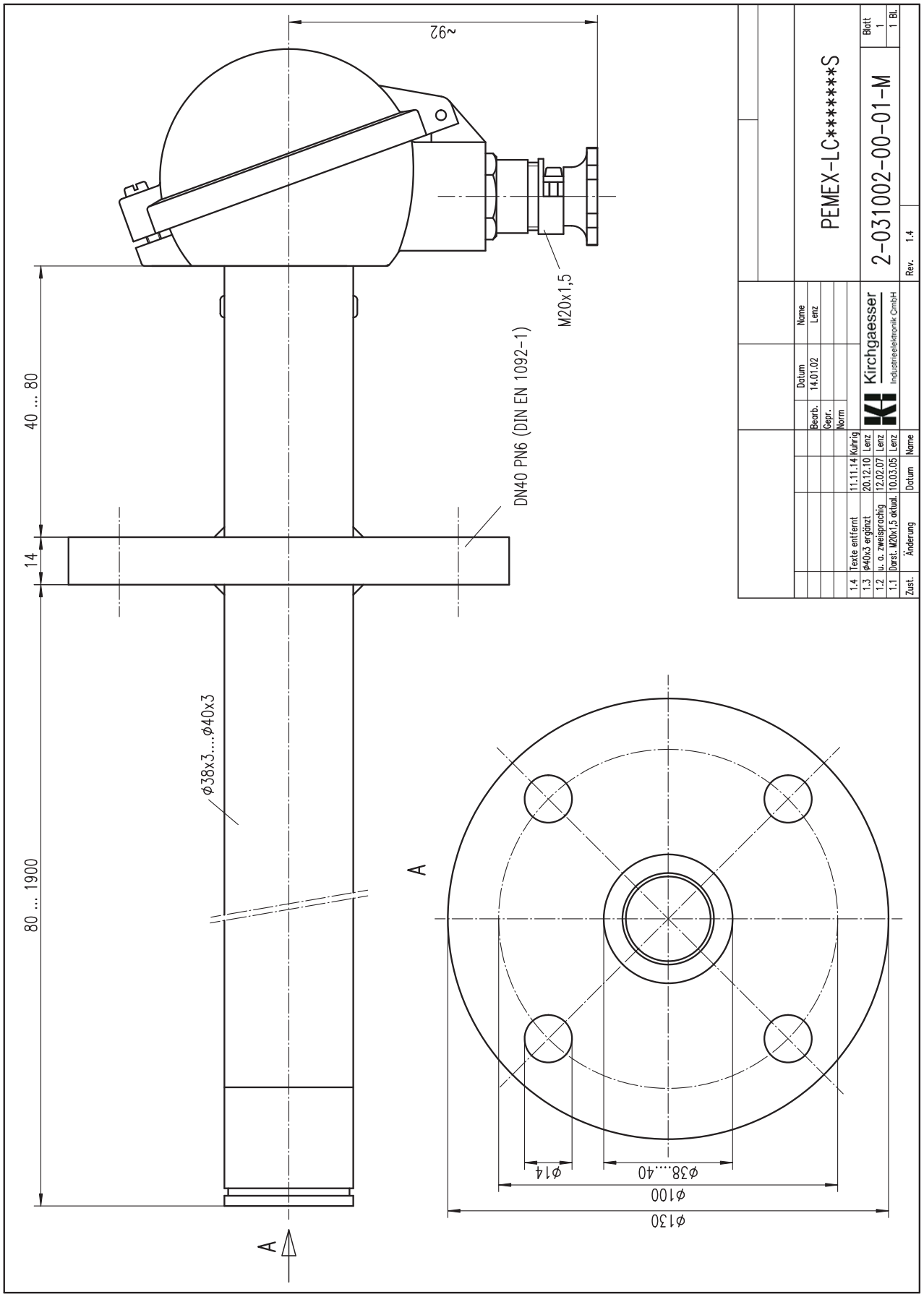
- Measuring principle:
  Ceramic or thinfilm sensor
- Measuring uncertainty:
  Max. ± 1% of end value, typ. ± 0.5% of end value
- Time constant of mechanical damping (only PEMEX-LC***DSD*):
  Approx. 20 ms
- Material:
  Stainless steel (connection head PEMEX-LC**K*: plastic)
- Weight:
  Depending on version (max. 1.4 kg)
- Cable gland:
  - M20x1.5
  - Clamping range 8.0 - 11.5 mm
  - Tightening torque 2 Nm
- Protection according to EN 60529:
  IP 65
- Type of protection according to EN 50014:
  EEx ia I (complies with Ex ia I according to EN 60079-0)
- Process connection:
  - G½,
  - G1¼ or
  - Socket nipple DN10 (according to DIN 20043)
- Ambient and medium temperature:
  -20°C ≤ T ≤ +60°C

Technical data (electrical):

- Power supply:
  - PEMEX-LCFL*: 8.0 VDC ≤ Ui ≤ 12.5 VDC
  - PEMEX-LCFH*: 9.0 VDC ≤ Ui ≤ 18.5 VDC
  - PEMEX-LCUL****05V: 9.0 VDC ≤ Ui ≤ 12.5 VDC
  - PEMEX-LCUL****10V: 11.5 VDC ≤ Ui ≤ 12.5 VDC
  - PEMEX-LCUH****05V: 10.0 VDC ≤ Ui ≤ 18.5 VDC
  - PEMEX-LCUH****10V: 12.0 VDC ≤ Ui ≤ 18.5 VDC
- Current consumption:
  9 mA
- Frequency output (all except PEMEX-LCF*P*):
  - Supply voltage: max. 30 VDC
  - Power consumption: max. 50 mW
- Frequency output (only PEMEX-LCF*P*):
  - Supply voltage: max. 13.5 VDC
- Voltage output:
  1 .. 5 VDC or 1 .. 10 VDC
- Internal inductances:
  Negligible (0.7 µH/m with PEMEX-LC***F*)
- Internal capacitances:
  Negligible (0.2 nF/m with PEMEX-LC***F*)

Dimension sheets:





Zust.	Änderung	Datum	Name
1.4	Texte entfernt	11.11.14	Kuhrig
1.3	ϕ40x3 ergänzt	20.12.10	Lenz
1.2	u. a. zweisprachig	12.02.07	Lenz
1.1	Darst. M20x1,5 aktual.	10.03.05	Lenz

	Datum	Name
Bearb.	14.01.02	Lenz
Gepr.		
Norm		

Kirchgaesser Industrieelektronik GmbH

PEMEX-LC******S

2-031002-00-01-M

Rev. 1.4

Blatt 1 — 1 Bl.