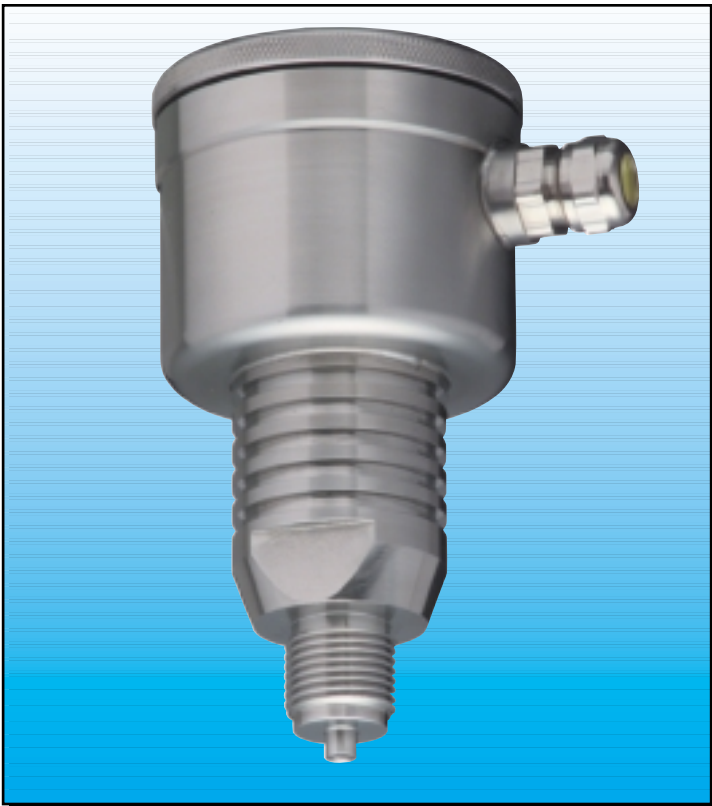




## ELECTRONIC PRESSURE TRANSMITTER

### Peramic®

- "ALL STAINLESS" TRANSMITTER
- **CERAMIC** PRESSURE CELL
- ACCURACY 0.2% (ADJUSTED SPAN)
- OUTPUT 4-20 mA / 2-WIRE
- ZERO /SPAN INTERNAL ADJUSTABLE
- NO OIL FILLING
- WITHSTAND FULL VACUUM
- VERY HIGH OVERPRESSURES
- LOCAL INDICATOR AVAILABLE
- INTRINSICALLY SAFE EEx ia IIC T4



### DESCRIPTION

The "Peramic" is a solid state, all stainless, pressure transmitter based on a **ceramic pressure cell**.

The amplifier system is based on a single integrated circuit, which ensures a perfect linearity in the 4-20 mA output, also the transmitter is fully temperature compensated on process temperatures.

The "Peramic" has the latest state of the art planar technology which results in a very compact construction, it is made for pressure applications in liquids, gases and vapours.

Zero and span are internally adjustable in wide ranges.

A local indicator (programmable) is available (option).



Topview with local indicator (option)

Made by:

 **KLAY-INSTRUMENTS B.V.**

Nijverheidsweg 5 7991 CZ DWINGELOO  
P.O. Box 13 7990 AA DWINGELOO

The Netherlands  
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Our representative in your area is:

® Peramic is a trademark of Klay Instruments B.V.

# SPECIFICATIONS

Measuring ranges : from 0-02 to 350 bar.  
 Output signal : 2-wire, 4-20 mA.  
 Overall accuracy :  $\pm 0,2\%$  adjusted span.  
 Power supply : 12 to 40 VDC.  
 Electrical connection : PG9 / 1/2" NPT or M20.  
 Load (max.) : 600 Ohm/24 V till 1400 Ohm/40V.  
 Protection grade : IP65 - IEC 144.  
 Weight : 0.6 kg.  
 Overpressure : see ordering information.  
 Process temperature : standard -20°C to 100°C  
 (1/2 hour 130°C).  
 Temperature effect :  $\pm 0,015\%/K$  adjusted span.

Housing temperature : -20°C + 70°C.  
 Storage temperature : -30°C + 70°C.  
 Adjustment : zero and span internally.  
 Process connections : see ordering information.  
 Wetted parts measuring cell : ceramic (Aluminiumoxyde 96%). Sensor sealing : standard viton O-ring (other materials on request).  
 Other wetted parts standard : AISI 316.  
 Material housing : AISI 304.  
 Zero elevation/suppression available.  
 Vacuum and compound ranges available, please specify.  
 Specifications can change without notice.

Process connections	Dimensions (mm)																
<p><b>Parts description:</b></p> <table border="0"> <tr> <td>1. Cover</td> <td>AISI 304</td> </tr> <tr> <td>2. O-ring</td> <td>EPDM</td> </tr> <tr> <td>3. PG Cable connector</td> <td></td> </tr> <tr> <td>4. Venting (cover)</td> <td>AISI 304</td> </tr> <tr> <td>5. Electronic housing</td> <td>AISI 304</td> </tr> <tr> <td>6. Foot/cooling fins</td> <td>AISI 316</td> </tr> <tr> <td>7. Ceramic sensor</td> <td>Al<sub>2</sub>O<sub>3</sub> (96%)</td> </tr> <tr> <td>8. Process connection</td> <td>AISI 316</td> </tr> </table>		1. Cover	AISI 304	2. O-ring	EPDM	3. PG Cable connector		4. Venting (cover)	AISI 304	5. Electronic housing	AISI 304	6. Foot/cooling fins	AISI 316	7. Ceramic sensor	Al <sub>2</sub> O <sub>3</sub> (96%)	8. Process connection	AISI 316
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# ORDERING INFORMATION

Order code key			SERIES CER-8000-					
measuring range bar	max. overpressure bar	adjustable span range bar min. - max.						
0 - 0,2 ...0,5	4	0 - 0,2 / 0 - 0,5	B					
0 - 0,4 ...0,8	6	0 - 0,4 / 0 - 0,8	C					
0 - 0,8 ...1,6	12	0 - 0,8 / 0 - 1,6	D					
0 - 1,6 ...4	20	0 - 1,6 / 0 - 4	E					
0 - 2,5 ...10	50	0 - 2,5 / 0 - 10	F					
0 - 10 ...40	120	0 - 10 / 0 - 40	G					
0 - 40 ...150	350	0 - 40 / 0 - 150	H					
0 - 100 ...350	600	0 - 100 / 0 - 350	I					
<b>PROCESS CONNECTIONS:</b>			R					
- G 1/2" (1/2" BSP) DIN 16288 manometer (gauge) connection			S					
- G 1/2" (male) and G 1/4" (female)			N					
- G 1/2" NPT (male) and G 1/4" (female)								
<b>OPTIONAL:</b>								
- Digital local Indicator (3 1/2 digit, programmable) (EEx i, not programmable)								
- Intrinsically safe: CENELEC EEx ia IIC T4						Ex		
- Vacuum range (Specify relative or absolute). Compound range available (example -1 / +1 bar)							V	
- P / I converter: 3-15 PSI = 4-20 mA. Incl. wall mounting bracket. Always range D								P/I
- SPECIALS: please specify (example: PTFE or Hastelloy C wetted parts)								G

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Factory Klay Instruments B.V. at Dwingeloo, The Netherlands

## KLAY INSTRUMENTS B.V.

Klay Instruments B.V. is a Dutch manufacturer of electronic pressure- and level transmitters, "Intelligent" transmitters with HART® protocol and pressure- and level switches. We are developing and manufacturing all our instruments at our factory in Dwingeloo, The Netherlands. Klay Instruments has a worldwide service and distribution network.

## OTHER KLAY PRESSURE/LEVEL TRANSMITTERS

### "INTELLIGENT" PRESSURE/LEVEL TRANSMITTERS

The Klay series 2000 is a complete range of microprocessor based pressure- and level transmitters with local display and adjustment by three pushbuttons. **Zero and span can be adjusted without testpressure.** The display can be used during programming to assist the operation. An engineering unit can be chosen and also the process temperature can be shown on the display. Also a damping (0-25 sec) and a current simulation (4-20 mA) can be performed. Over 40 different process connections are available including many flush diaphragm designs. The series 2000 are also available with the HART® protocol. A detailed brochure is available.



### "INTELLIGENT" PRESSURE TRANSMITTER PERAMIC "S"

The "Peramic" is also available in an "Intelligent" version, type **Peramic "S"** (series CER-2000) including the HART® protocol. The Peramic "S" can be adjusted by 3 pushbuttons and a local display. **Zero and span can be adjusted without testpressure.** The display can be used during programming to assist the operation. An engineering unit can be chosen and also the process temperature can be shown on the display. Also a damping (90-25 sec) and a current simulation (94-20 mA) can be performed. A detailed brochure is available.



### FOOD- AND BEVERAGE INDUSTRY

For the food- and beverage industry (dairy, breweries, etc.) and the pharmaceutical industry, Klay Instruments manufactures a wide range of electronic level and pressure transmitters with **various hygienic process connections**, like DIN milkcoupling, SMS, IDF and tri-clamp. These "all stainless" transmitters series 8000-SAN, are fully temperature compensated. Ranges are available from 0,1 bar till 60 bar. Zero and span are internally adjustable over wide range. The series 8000-SAN is also available in an "Intelligent" version, Series 2000-SAN. From both series a detailed brochure is available.



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