

## Technical data

Pressure ranges	<b>-1...+1 bar to 0...2000 bar</b>
Output signal	<b>4...20 mA ( 2-wire)</b>
Process connection	According to list
Media temperature	0 .. +100 °C
Ambient temperaturer	-40 .. +85 °C (class T4)
Schutzklasse	IP65 @ DIN 40 050

- Resistant against pressure peaks
- Insensitively against temperature shocks
- Protective type IP 65 @ DIN 40 050
- Measuring material touched parts and cases from CrNi steel

## Construction

Diaphragm steel or silicium  
 Poly-Si- at SiO<sub>2</sub> (Thin film resistors)  
 Working temperature -40°C bis 85°C  
 class : 0,5% standard (optional 0,3%)  
 Mixed Signal ASIC

## Operational areas

Hydraulik  
 Climate + heating  
 testing technology  
 industrial robot  
 process control  
 water management  
 pneumatics



## Decription

The wide application of pressure by the high accuracy and rugged, compact design is guaranteed. A suitable protective circuits in the case of mistakes against false polarity, over voltage and a limitation of the loss achievement exists.

The compensation and adjustment is carried out electronically. This pressure transmitters have a very low total error and a very good long-term stable. The cell is characterized by its high long-term resistance and long-term stability. With the precision of modern electronics, the measured data very accurately collect and spend. Even the programming of pressure by the user is on a handheld PC or realize. The digital interface can be sub-setting and measuring zero point, or sensor data read from the device. Using permanent magnets can be easily and securely zero for calibration of measuring systems adjust.

The stainless steel membrane is vacuum-sealed completely, extremely hard against pressure peaks and all standard media in the hydraulics, pneumatics, environmental engineering, process technology, semiconductor technology and automotive engineering to the extent that they are compatible with stainless steel, can be used. This will be used in standard applications of mobile hydraulics and other application areas covered.

The pressure will be conditionally intensive manufacturing pressure-temperature testing. The production is subject to the requirements of ISO 9001:2008.

## Safety information

During installation, putting into service and operation of these pressure sensors, it is necessary to observe the relevant safety regulations that are in force in the country of the user (as for example, DIN VDE 0100).

Errors excepted; subject to alterations in the sense of technical improvement.

CIT-EXi\_E1

Technische Daten										
Pressure ranges *) ( bar) Standard pressure ranges *)		0,25	0,4	0,6	1,6	2,5	4	6	10	16
		25	40	60	100	160	250	400	600	1000
		1600	2000							
Over pressure safety ( bar) *)		1,5-times / > 500 bar 1,2- times								
Burst pressure ( bar) *)		3- times / > 500 bar 1,5- times								
Pressure		Relative pressure to the external atmosphere								
pressure port		See order code								
Material		steel or silicium								
Diaphragm		CrNiCuNb 17-4 PH – no silicon oil								
Measuring touched parts		X5CrNi18-10								
cases										
connector		See order code								
weight ( g)		90 g								
Setting time ( 10...90 %) t <sub>E</sub>		< 20 ms								
Isolation resistance at 50 V		≥ 100 M Ω								
Isolation voltage U <sub>DC</sub>		500 VAC								
<b>Power supply</b>		<b>Schematic for use</b>								
<b>ATEX admitted power supply</b>										
Voltage	max. 27 V DC									
Current	max. 125 mA									
Ri (@ 24V)	≥ 100 Ohm									
Linearity error at RT % FS **)		± 0,5 max. ( optional 0,3 **** )								
ability for reproduction % of range		< 0,1								
Stability /a % of range		< 0,2 ( at authoritative terms)								
<b>Ambient conditions</b>										
- Ambient temperature (°C)		-40...+ 85 °C								
- Media temperature (°C)		-40...+ 100 °C (Zone 1 only)								
- Storage temperature (°C)		-40...+ 125 °C								
- temperature compensated (°C)		-20...+ 85 °C								
<b>Total error (***) max. ± ****)</b>										
		- 40° C...-20 ° C	-20° C...+85 ° C	+25° C ± 5 ° C						+30° C... +85 ° C
		1,0 typ. < 0,8 %	1,0 typ. < 0,5 %	0,3 typ. < 0,2 %						0,8 typ. < 0,4 %
EMC directive		89/336/EEC emission ( class B) immunity according to EN61326								
Shock resistance according to IEC 68-2-32		1 m ( free fall )								
Vibration resistance according to IEC 68-2-6 and IEC 68-2-36		20 g								
<b>ATEX- certificate</b>		<b>II 1G Ex ia IIB/C T4</b> (IIB/C – see order code) ( IBE <sub>X</sub> U 10 ATEX 1073)								
Compliance with		EN 60079-0, EN 60079-11								
Highly connection evaluates		EN 60079-26 :2007, EN 60079-14								
Temperature class		27 V, 125 mA, 0,85 W T4 (ambient -40 .. +85 °C)								

\*) other on request

\*\*) integral linearity divergence (FS = Full Scale, BFS<sub>L</sub> = Best Fit Straight Line)

\*\*\*) The total error contain non-linearity, Hysterese, repeatability and temperature influence

\*\*\*\*) customised special implementation with optional better exactness on inquiry



**Pressure transmitter**

**Serie CIT-EXI**

Order code

CIT-Exi - xxxxx - xx - x - x

					certificate
<b>Pressure range</b>	Range (with unit)	xxxxx			
<b>Pressure port</b>	G ¼ Manometer		01		
	G ¼ Form E		02		
	G ¼ Form A		03		
	R ¼		04		
	3/8 UNF		05		
	9/16 UNF		06		
	M14 x 1,5 Form E		07		
	M12 x 1		08		
	M18 x 1,5		09		
	½ UNF		10		
	1/8 NPT		11		
	G ½		12		
	¼ NPT		13		
	M20 x 1,5 Mano		14		
	7/16-20 UNF2A		15		
	7/16-20 UNF2B		16		
	7/16-20 UNF/C 2A		17		
<b>Electrical connector</b>	MVS/ Form A		1		II 1G Ex ia IIB T4
	AMPRD-3 /-4		2		II 1G Ex ia IIB T4
	Cable port steel		3		II 1G Ex ia IIB T4
	Cable port plastic		4		II 1G Ex ia IIB T4
	cable joint		5		II 1G Ex ia IIB T4
	Deutsch-Stecker 2-polig		6		II 1G Ex ia IIB T4
	Deutsch-Stecker 3-polig		7		II 1G Ex ia IIB T4
	Deutsch-Stecker 4-polig		8		II 1G Ex ia IIB T4
	Super Seal		9		II 1G Ex ia IIB T4
	Junior Timer Stecker		10		II 1G Ex ia IIB T4
	Packard-Stecker		11		II 1G Ex ia IIB T4
	MVS/ Form C		12		II 1G Ex ia IIB T4
	Flanschstecker		13		II 1G Ex ia IIC T4
<b>precision</b>	≤ 2%			3	
	≤ 1%			2	
	≤ 0,5%			1	
	≤ 0,25%			0	
	Special calibration			9	

**Indication:**

Alternatively all Transmitter can be delivered in the category **II 2G Ex ia IIC T4** .

All Transmitter with a cable exit from 3 m are valid as a level recorder probe!

Pressure connections and electric connections according to separate drawing sheet.