



PRESSURE TRANSDUCER WITH CERAMIC SENSOR series THPB3, THIPB3 options: CS, PC, (HART)

DESCRIPTION:

- silicon sensor
- automatic testing, laser zero setting
- high accuracy and long-term stability
- protection from reverse polarity, current protection, overvoltage protection
- resistance to wear and corrosion
- options: THPB3, THPB3-CS, THPB3-PC

APPLICATION:

- food industry
- power engineering
- health care
- chemical industry

TECHNICAL PARAMETERS:

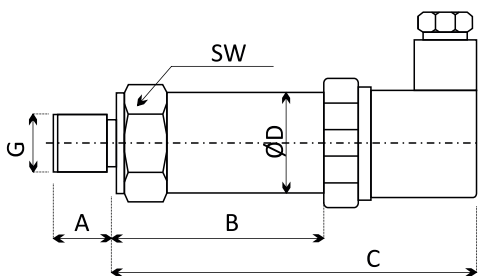
- measuring ranges: 0-1...600bar
- output signal: 4-20mA; 0-5V; 0-10V; 1-5V, 4-20mA HART/THIPB3
- connection: G1/4 (M20x1,5, 1/4 NPT)
- supply voltage: 12-36V DC
- accuracy class: 0,25% FS (standard); 0,5%FS
- pressure type: relative, absolute
- environment temperature: -40+125 °C

SPECIFICATION:

Pressure transducer with ceramic sensor THPB3 is equipped with integrated high quality silicon sensor and specially strengthened circuit. Transducers cylindric case is made of stainless steel, including process connection. THPB3 is fully tested on computer and zero value is set by means of laser with high sensitivity in wide range of temperature ranges. Sensor membrane THPB3 is made of ceramic material and all parts that come in contact with medium are made of stainless steel 321. THPB3 may be used for pressure measurement even in operations of variable temperatures thanks to the high temperature stability of the silicon sensor. Some of the assets of the transducer are its sturdy and heavy-duty design, high accuracy and temperature change stability. THPB3 is suitable for pressure measuring in most industrial applications, widely used in chemical, food industry, health care and power engineering.

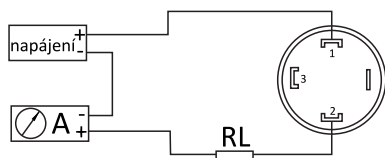
Technical parameters			
Medium	gas or liquid suitable for direct contact with stainless steel	Storing temperature	-40+120°C
Range	0 - 1 ... 600 bar	Working temper. range	-30+95°C
Accuracy class	0,25%FS; 0,5%FS (standard)	Electr. connection	DIN 43650, other, see table
Pressure	relative (G), absolute (A)	Connection	G 1/4 (M20x1,5; 1/4 NPT)
		Sealing	N-Butyronitril/fluor seal. ring
Output signal	4-20 mA, 0-5V, 0-10V, 1-5V 4-20 mA HART/THIPB3	Connection mater.	st. steel 17 248/1.4541
		Membrane mater.	ceramic
Stability	<0,2%FS/year	Case material	st. steel 17 248 / 1.4541
Loading resistance	$RL=(U-12V)/0,02$ (4-20mA current output) U - loop voltage (V)	Medium environ. temperature	-40+125°C
Supply voltage	12-36V DC	Overloading	150%FS

HART/THIPB3

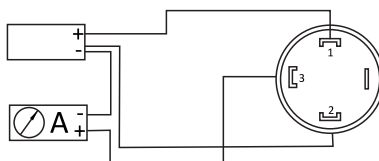


Dimensions in mm					
A	B	C	D	G	SW
12	56	~95	27	G1/4	27

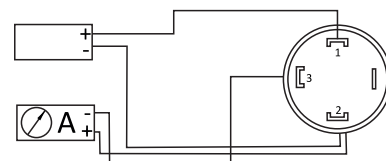
Wiring diagram 4-20mA:



Wiring diagram 0-20mA:



Wiring diagram 0- 5V, 0-10 V



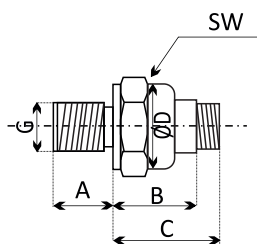
Order code:

THPB3,THIPB3	Type	
	Range	measuring range: 0-1...600bar
	(0–X) bar	X - required measuring range
	Code	Pressure
	G	relative
	A	absolute
	Code	Accuracy class
	C	0,25%
	D	0,5%
	Code	Output signal
	O1	4-20mA
	O2	0-5V
	O3	1-5V
	O4	0-10V
	O5	0-20mA
	Code	Connection
	P1	G1/4
P3	1/4NPT	
P4	M20x1,5	
Pz	on request	
Code	Electr. connect.	
E1	DIN 43650	
E2	cable connector	
E3	PVC shielded cable	
Ez	on request	

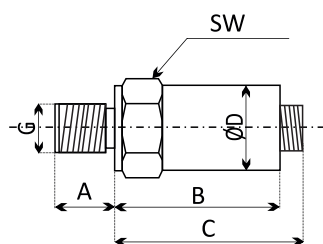
THPB3	(0-200)bar	G	D	O1	P2	E1
	Range	Pressure type	Accuracy class	Output signal	Connection	Electric connection

Technical parameters			
Medium	gas or liquid suitable for direct contact with stainless steel	Storing temperature	-40+120°C
Range	0-10bar, 0-16bar (PC) -100-0; 0-1...600bar (CS)	Working temper. range	-20+85°C
Accuracy class	0,5%FS (CS) ; 1,5%FS (PC)	Electr. connection	M12x1,5
Pressure	relative (G), absolute (A) (CS) relative (PC)	Connection	G 1/4 ; M12x1,5; 1/4NPT
		Sealing	NBR
Output signal	4-20 mA (PC) 4-20 mA, 0-5V, 0-10V, 1-5V (CS)	Connection mater.	st. steel 17 248/1.4541
		Membrane mater.	ceramic
Stability	<0,2%FS/year	Case material	st. steel 17 248 / 1.4541
Loading resistance	$RL=(U-12V)/0,02$ (4-20mA current output) U - loop voltage (V)	Medium environ. temperature	-40+125°C
Supply voltage	10-28 VDC (PC), 10-30 VDC (CS)	Overloading	1,5xPN

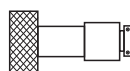
• THPB 3-PC



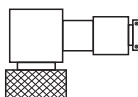
• THPB 3-CS



• Variants of connectors:



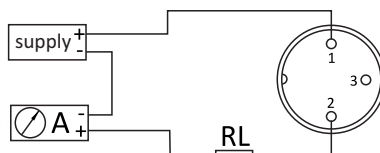
Direct



Angular

Dimensions in mm						
Type	A	B	C	D	G	SW
THPB3-CS	12	32	36	22	G1/4	22
THPB3-PC	10	19	24	20	G1/4	22

Wiring diagram



Order code:

Type	THPB3 CS					
Range	measuring range: 0-1...600bar					
(0 X) bar	X - required measuring range					
	Code	Pressure				
	G	relative				
	A	absolute				
		Code	Accuracy class			
		C	0,25%			
		D	0,5%			
			Code	Output signal		
			O1	4-20mA		
			O2	0-5V		
			O3	1-5V		
			O4	0-10V		
				Code	Connection	
				P1	G1/4	
				P3	1/4NPT	
					Code	Electr. connect.
					E1	Cable connector

THPB3 CS	(0-200)bar	G	D	O1	P3	E1
	Range	Pressure type	Accuracy class	Output signal	Connection	Electric connection

Type	THPB3 PC					
Range	measuring range: 0-10bar, 0-16bar					
(0 X) bar	X - required measuring range					
	Code	Pressure				
	G	relative				
		Code	Accuracy class			
		D	1,5%			
			Code	Output signal		
			O1	4-20mA		
				Code	Connection	
				P1	G1/4	
					Code	Electr. connect.
					E1	Cable connector

THPB3 PC	0-10bar	G	D	O1	P1	E1
	Range	Pressure type	Accuracy class	Output signal	Connection	Electric connection

