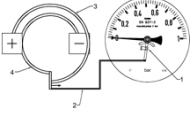
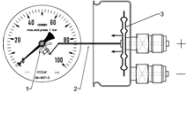
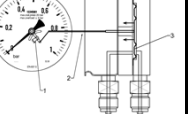
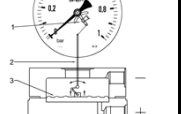
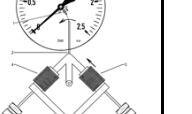
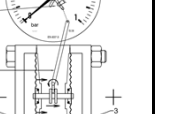


# DIFFERENTIAL PRESSURE GAUGES

## Selection guide

parameter		differential pressure gauge type					
		PBD	PCD	PDD	PMD	PSD	POD
operating principle		2x bourdon tube	capsule	1x diaphragm	1x diaphragm	2x bellows	2x diaphragm
range (span)	min.	0.6 bar	25 mbar case 100 6 mbar case 160	0.6 bar	250 mbar 25 mbar for type low	100 mbar	1 bar 100 mbar for type low
	max.	16 bar	400 mbar	16 bar	25 bar	6 bar	25 bar
static pressure	max.	2.5 ... 4 x range	1.5 bar case 100mm 1 bar case 160mm	20 bar	100 bar 25 bar for type low	10 x range	100 bar optional 250 bar
overload safe	max.	no	no optional max. 2 bar	4 x range 2.4 ...20 bar	no	upto static press. upto static press.	100 bar optional 250 bar
case diameter	mm	100; 160	100; 160	100; 160	100; 160		100; 160
contact device		yes	no	no	yes	no	yes
	min.	1.6 bar			1,6 bar 100 mbar for type low		1.6 bar
chemical seals <small>see catalogue page 37</small>		yes, wide range	no	yes	yes	no	yes
wetted parts		AISI316L/1.4435  AISI316Ti/1.4571  fully welded system	for clean air and dry gasses only  stainless steel  nickel coated brass; macrolon	AISI316L/1.4435  diaphragm duratherm  Viton; PTFE	AISI316L/1.4435  diaphragm duratherm  Viton; PTFE	AISI316L/1.4435  fully welded system	DP cell; AISI316L/1.4435  diaphragm duratherm  Viton; PTFE
catalogue page		45	46				
operating principle <small>see also catalogue</small>							
T ambient		-20/+60 °C	-20/+50 °C	-20/+60 °C	-20/+60 °C	-20/+60 °C	-20/+60 °C
T process max.		-20/+100 °C	-20/+50 °C	-20/+80 °C	-20/+80 °C	-20/+80 °C	-20/+80 °C

# DIFFERENTIAL PRESSURE GAUGE TYPE POD-HS

## TYPE POD-HS, double diaphragm system overload safe upto 250 bar (400 bar)

### HIGH STATIC PRESSURE MODEL

**Features :** two flexible stainless steel diaphragms  
 max. static pressure 250 or 400 bar  
 rinseable pressure chambers  
**both sides over pressure safe upto the static pressure (250 or 400 bar)**  
 high corrosion resistance  
 connections at 54 mm pitch

**Wetted parts :** AISI316L / 1.4404

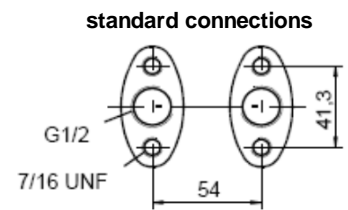
**Diaphragms :** 0 - 400 mbar - AISI316Ti / 1.4571  
 0.6 - 25 bar - Duratherm ®

**Applications :** gas plants  
 chemical industry  
 general industry  
 off-shore



Example: POD-HS160XK

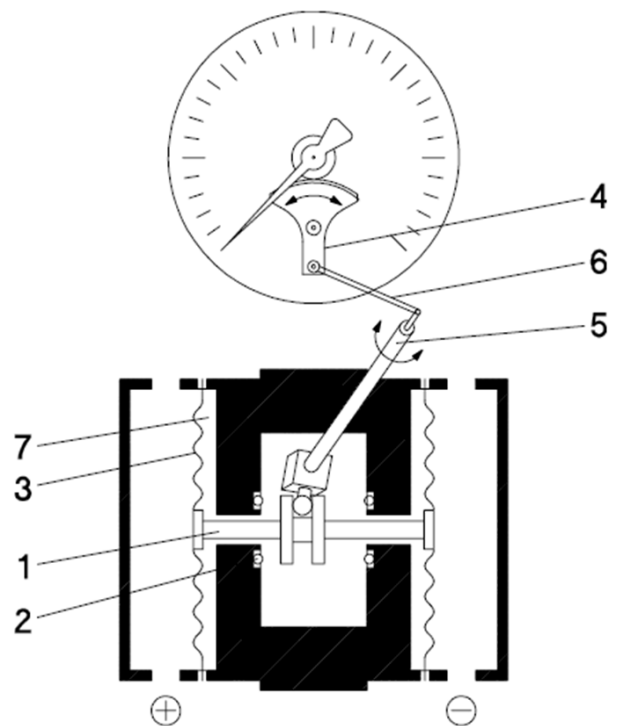
Type	max. static pressure	Range
POD-HS100xx-low	max. 250 bar / 400 bar	0 - 60 mbar upto
POD-HS160xx-low		0 - 400 mbar
POD-HS100xx	max. 250 bar / 400 bar	0 - 0.6 bar upto
POD-HS160xx		0 - 25 bar



**Options :** other connections (adapters)  
 swivel adapters  
 manifolds  
 chemical seals  
 electrical contacts  
 special dials  
**static pressure max. 400 bar**

**operating principle:**

- 1 - connecting rod
- 2 - O-ring, overpressure safety device
- 3 - sensing diaphragm
- 4 - movement
- 5 - measuring shaft
- 6 - lever
- 7 - pressure transfer liquid



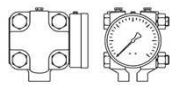
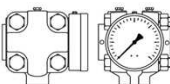
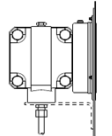
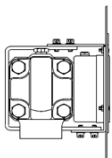
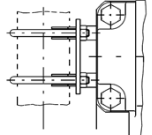
## DIFFERENTIAL PRESSURE GAUGE TYPE POD-HS

1

### TYPE POD-HS, double diaphragm system overload safe upto 250 bar (optional 400 bar)

#### HIGH STATIC PRESSURE MODEL

<b>CASE</b>	: bayonet lock, AISI304/1.4301, IP-54 : with casefilling, IP-65	<b>MOVEMENT</b>	: AISI304/1.4301
<b>DIAPHRAGMS</b>	: 0 - 400 mbar - diaphragms 1.4571 : 0.6 - 25 bar - diaphragms Duratherm	<b>ACCURACY</b>	: ± 1.6% F.S./class 1.6
<b>OTHER WETTED PARTS</b>	: AISI316L / 1.4404	<b>STATIC PRESS.</b>	: max. 250 bar (optional 400 bar)
<b>WINDOW</b>	: laminated safety glass	<b>OVERLOAD</b>	: both sides upto 250 bar
<b>DIAL</b>	: aluminium, black figures on white	<b>APPLICATION</b>	: general and heavy industry
<b>POINTER</b>	: aluminium, black	<b>AMBIENT TEMP.</b>	: -20 / +80 °C
<b>STANDARD CONNECTION</b>	: 2 x 1/2 " BSP female, : AISI316L/1.4404 at pitch 54 mm	<b>PROCESS TEMP.</b>	: -20 / +80 °C
<b>GASKETS</b>	: Viton ® O-Rings	<b>ZERO ADJUSTMENT</b>	: max. 30 % F.S.

TYPE	MODEL	CASE DIAMETER			
		Ø 100 mm		Ø 160mm	
		range		range	
		0-60 mbar upto 400 mbar	0-0.6 bar upto 25 bar	0-60 mbar upto 400 mbar	0-0.6 bar upto 25 bar
<b>XK</b>		POD-HS100XK-low	POD-HS100XK	POD-HS160XK-low	POD-HS160XK
<b>XL</b>		POD-HS100XL-low	POD-HS100XL	POD-HS160XL-low	POD-HS160XL
<b>XD</b>		POD-HS100XD-low	POD-HS100XD	POD-HS160XD-low	POD-HS160XD
<b>XH</b>		POD-HS100XH-low	POD-HS100XH	POD-HS160XH-low	POD-HS160XH
<b>XY</b>		POD-HS100XY-low	POD-HS100XY	POD-HS100XY-low	POD-HS160XY

#### OPTIONS

<b>Other materials: Hastelloy</b>	<i>Hastelloy diaphragm (according to NACE - MR-01-03 )</i>	on demand
	<i>Hastelloy wetted parts (according to NACE - MR-01-75)</i>	
<b>400 BAR STATIC</b>	<i>Max. static pressure 400 bar and both sides overload safe upto 400 bar</i>	
<b>OTHER CONNECTIONS</b>	<b>ON DEMAND</b>	
<b>POINTERS</b>	<b>DRAG POINTER ADJUSTABLE POINTER</b>	
<b>Lx</b>	<i>GLYCERINE FILLED CASE e.g. POD-HS-160LL</i>	
	<i>In combination with electrical contact Ondina oil</i>	

## STANDARD PRESSURE RANGES FOR TYPES:

**PBX, PBX-TG, PBX-SF, PBB, PMX, PPB, PBS, PFS, PBQ, PFQ, PBR, PBT, RPX, RPP, PBX-SS,  
DIFFERENTIAL PRESSURE GAUGES**

PRESSURE RANGES				EXTRA COSTS										
(in bar)*****	SCALE DIVISION			CASE DIMENSIONS ( in mm)										
	cl. 1.0 cl. 1.6	OPTION		Ø 63	Ø 80	Ø 100	Ø 160	Ø 250	72x72	96x96	144x144	192x192 280x280 380x380 400x300 500x400	72x144 144x72	192x96 96x192
		cl. 0.6 cl. 0.5	only PBX-TG cl. 0.3 cl. 0.25											
-1 ...0	0.02	0.005	0.005											
-1 ...0.6	0.05	0.01	0.005											
-1 ...1.5	0.05	0.02	0.01											
-1 ...3	0.1	0.02	0.01											
-1 ...5	0.1	0.05	0.02											
-1 ...9	0.2	0.05	0.05											
-1 ...15	0.5	0.1	0.05											
-1 ...24	0.5	0.2	0.1											
0 ...0.6	0.01	x	x											
0 ...1	0.02	0.005	0.005											
0 ...1.6	0.05	0.01	0.005											
0 ...2.5	0.05	0.02	0.01											
0 ...4	0.1	0.02	0.01											
0 ...6	0.1	0.05	0.02											
0 ...10	0.2	0.05	0.05											
0 ...16	0.5	0.1	0.05											
0 ...25	0.5	0.2	0.1											
0 ...40	1	0.2	0.1											
0 ...60	1	0.5	0.2											
0 ...100	2	0.5	0.5											
0 ...160	5	1	0.5											
0 ...250 <b>CE</b>	5	2	1											
0 ...400 <b>CE</b>	10	2	1											
0 ...600 <b>CE</b>	10	5	2											
0 ...1000 <b>CE</b>	20	5	5											
0 ...1600 <b>CE</b>	50	x	x	x	x			x					x	x
0 ...2000 <b>CE</b>	50	x	x	x	x			x	x	x	x	x	x	x
0 ...2500* <b>CE</b>	50	x	x	x	x			x	x	x	x	x	x	x
0 ...3000* <b>CE</b>	50	x	x	x	x			x	x	x	x	x	x	x
0 ...4000** <b>CE</b>	50	x	x	x	x		See p14	x	x	x	x	x	x	x
0 ...5000***, 0 ... 6000*** and 0 ...7000*** - see page 14 <b>CE</b>														
<b>NON STANDARD RANGES</b>														
e.g. 0-7 bar or 0-110 psi														
<b>DOUBLE SCALES</b>														
e.g. bar/psi, bar/kPa, etc.														
FREON SCALES e.g. R12, R134A, R22, R404A, R407C, R502, R504, R717, NH3														
<b>ACCURACY</b>														
±1.6% F.S. (class 1.6)				•	•	x	x	x	•	•	x	x	x	x
±1.0% F.S. (class 1.0)						•	•	•			•	•	•	•
±0.6 / 0.5 %F.S. (class 0.6 or 0.5)***				x	x				x	x				
±0.3 / 0.25 %F.S. (class 0.3 or 0.25) ****				x	x	x	****	****	x	x	x	x	x	x
Mirrorscale (standard for PBX-TG, page 12)				x	x	x			x	x	x	x	x	x
<b>TRM scales</b>														
0 ...100 % lin.														
0 ...10 square root														
0.2 ...1 bar														
3 ...15 psi														
20 ...100 kPa														
x	NOT AVAILABLE			* ELEMENT CrMo52 i.o. AISI316Ti/1.4571				*** ONLY FOR TYPE PBX OR PBX-SF						
•	STANDARD			** ELEMENT NiSpan C i.o. AISI316Ti/1.4571				****ONLY FOR TYPE PBX-TG - see page 12						
***** Scale in Psi, kPa, kg/cm², mWC etc. available with no extra charge														

## STANDARD PRESSURE RANGES FOR TYPES: PCX, PMX, PPC, PCD, PMD

PRESSURE RANGES												
(in mbar) **		SCALE DIVISION		CASE DIMENSIONS (in mm)								
		cl. 1.6	option cl. 1.0	Ø 100	Ø 160	Ø 250	72x72	96x96	144x144	192x192	72x144 144x72	192x96 96x192
-4 ...0*	0 ...4*	0.1	0.1	x	•	x	x	x	•	•	x	•
-6 ...0*	0 ...6*	0.1	0.1	x	•	x	x	x	•	•	x	•
-10 ...0*	0 ...10*	0.2	0.2	x	•	x	x	x	•	•	•	•
-16 ...0*	0 ...16*	0.5	0.5	x	•	x	x	x	•	•	•	•
-25 ...0	0 ...25	0.5	0.5	•	•	•	x	•	•	•	•	•
-40 ...0	0 ...40	1	1	•	•	•	•	•	•	•	•	•
-60 ...0	0 ...60	1	1	•	•	•	•	•	•	•	•	•
-100 ...0	0 ...100	2	2	•	•	•	•	•	•	•	•	•
-160 ...0	0 ...160	5	5	•	•	•	•	•	•	•	•	•
-250 ...0	0 ...250	5	5	•	•	•	•	•	•	•	•	•
-400 ...0	0 ...400	10	10	•	•	•	•	•	•	•	•	•
-2.5 ...1.5*	-1.5 ...2.5*	0.1	0.1	x	•	x	x	x	•	•	x	•
-4 ...2*	-2 ...4*	0.1	0.1	x	•	x	x	x	•	•	x	•
-6 ...4*	-4 ...6*	0.2	0.2	x	•	x	x	x	•	•	•	•
-10 ...6*	-6 ...10*	0.5	0.5	x	•	x	x	x	•	•	•	•
-15 ...10	-10 ...15	0.5	0.5	•	•	•	x	•	•	•	•	•
-25 ...15	-15 ...25	1	1	•	•	•	•	•	•	•	•	•
-40 ...20	-20 ...40	1	1	•	•	•	•	•	•	•	•	•
-60 ...40	-40 ...60	2	2	•	•	•	•	•	•	•	•	•
-100 ...60	-60 ...100	5	5	•	•	•	•	•	•	•	•	•
-150 ...100	-100 ...150	5	5	•	•	•	•	•	•	•	•	•
-250 ...150	-150 ...250	10	10	•	•	•	•	•	•	•	•	•
<b>NON STANDARD RANGES:</b>												
e.g. 0-50 mbar etc.												
<b>DOUBLE SCALES</b>												
e.g. mbar/mmWC, mbar/Pa, etc.												
<b>ACCURACY</b>												
±1.6% F.S. / class 1.6				•	•	•	•	•	•	•	•	•
±1.0% F.S. / class 1.0 *							x				x	x
Mirrorscale				x			x	x	x	x	x	x

NOT AVAILABLE     STANDARD

\* not for type PMX and ALL differential pressure gauges

\*\* Scale in psi, kPa, kg/cm<sup>2</sup>, mWC etc. available with no extra charge

### MARKING FOR PRESSURE GAUGES

OPTIONS	EXTRA PRICE
TAG number on dial	
TAG number on AISI304/1.4301 TAG plate 55x25 mm	
Lettering on dial	
Red mark on dial	

### CERTIFICATES FOR PRESSURE GAUGES

TYPE OF CERTIFICATE	NET PRICES
Certificate of Conformity acc. to EN 10204 2.2.	
Material certificate wetted parts acc. to EN 10204 3.1	
ATEX certification, including ATEX on the dial; only possible with STIKO logo for gauges without contact <b>INSTRUMENTS WITH ATEX CERTIFICATION SHALL ALSO HAVE SAFETY GLASS AND A BLOW - OUT</b>	PER ORDER
ATEX certification, including ATEX on the dial; only possible with STIKO logo for gauges with inductive contact <b>INSTRUMENTS WITH ATEX CERTIFICATION SHALL ALSO HAVE SAFETY GLASS AND A BLOW - OUT</b>	PER INSTRUMENT
Pressure (Bar)	<=2500    2500-4000    >=4000
Calibration certificate pressure gauge (standard for PBX-TG - see page 12)	Certificate traceable to international standards
Calibration certificate pressure gauge with transmitter (see page 64)	
Calibration certificates for type PBB (duplex)	

## OPTIONS ON PRESSURE GAUGES

TYPE	CASE DIMENSIONS (in mm)	EXTRA COSTS							
		CONNECTIONS						CASE & BEZEL	
		1/8"BSP/NPT max. 400 bar	1/4"BSP/NPT max. 1000 bar	1/2"BSP max. 2500 bar***, 1/2"NPT max. 1000 bar	3/8"BSP/NPT max. 1000 bar	M20x1.5 max. 1600 bar	M16x1.5 H.P. female max. 7000 bar**	9/16"UNFx18 H.P. female max. 7000 bar**	AISI316L / 1.4404
PBX	063		•						×
	080		•					×	×
	100			•					
	160			•				*	*
	250			•				×	×
PBX-SF	063		•					○	×
	100			•				○	
	160			•				○	
PBB	100			•				×	×
	160			•				×	×
PCX	100			•			×	×	
	160			•			×	×	
	250			•			×	×	×
PMX	100			•			×	×	×
	160			•			×	×	×
PPB - PPC	square		•				×	×	×
	rectangular		•				×	×	×
PBS - PBQ	063	ON DEMAND: SEE ALSO PAGE 23-41							
PFS - PFQ	080							×	×
	100								
	160								
PBR - PBT	100	SEE PAGE 42-43							×
	160								×
PCD	100			•			×	×	
	160			•			×	×	
PBD	100			•			×	×	×
	160			•			×	×	×
PMD	100			•			×	×	
	160			•			×	×	×
POD	100						×	×	×
	160						×	×	*
RPX	ALL			•				×	×
PBX-SS	063		•					•	•
	100			•				•	•
	160			•				•	•

× NOT AVAILABLE    
 • STANDARD    
 ○ ON DEMAND    
 \* Not possible in combinations with contacts or transmitters  
 \*\* Not available with pulsation damper  
 \*\*\* As per DIN16001

# OPTIONS ON PRESSURE GAUGES

TYPE	CASE DIMENSIONS (in mm)	EXTRA COSTS													
		WINDOW MATERIAL			BLOW- OUT		POINTERS					MEASURING SYSTEM			
		PMMA - PLEXIGLASS	SECURIT	LAMINATED SAFETY GLASS	DISC	PLUG * (LIQUID FILLED)	ADJUSTABLE	INDEX POINTER ON GLASS	DRAG POINTER		DRAG POINTER in combination with HZ contact	OIL & GREASE FREE**	MONEL WETTED PARTS	PULSATION DAMPER AISI316 1.4401	OVERLOAD 2x F.S. other on demand
									Single	Double					
PBX	063				●	●					×	×			
	080				●	●					×	×			
	100				●	●									
	160				●	●									
	250				●	●					×		×		
PBX-SF	063	×	×	●	×	×					×	×			
	100	×	×	●	×	×					×				
	160	×	×	●	×	×					×				
PBB	100				●	●	×				×				
	160				●	●	×				×				
PCX	100				●	●				○	×	×	×	×	see page 16
	160				●	●				○	×	×	×	×	
	250				●	●				×	×	×	×	×	
PMX	100				●	●					×		×	×	see page 17-18
	160				●	●					×		×	×	
PPB	square	●	×	×	×	×					×		×		○
PPC	rectangular	●	×	×	×	×	×	×	×	×	×		×		○
PBS	063		×		●	●					×	×	○		○
PBQ	080		×	×	●	●					×	×	○		○
PFS	100				●	●					×		○		○
PFQ	160				●	●					×		○		○
PBR	100				●	●					×		○		○
PBT	160				●	●					×		○		○
PCD	100	×		×	×	×		×	×	×	×	×	×		see page 46
	160	×		×	×	×		×	×	×	×	×	×		
PBD	100				●	●					×		×		×
	160				●	●					×		×		×
PDD	100				●	●					×	×	×		×
PMD	160				●	●					×	×	×		×
POD	100				●	●					×	×	×	×	×
	160				●	●					×	×	×	×	×
RPX	ALL	●	see page 21,	×	×	×	●	×	×	×	×		×	×	
RPP		●	22	×	×	×	●	×	×	×	×		×	×	
PBX-SS	063	×	●	×	×	×		×	×	×	×				
	100	×	●	×	×	×		×	×	×	×				
	160	×	●	×	×	×		×	×	×	×				

× NOT AVAILABLE     
 ● STANDARD     
 ○ ON DEMAND     
 \* WITH COMPENSATING DIAPHRAGM     
 \*\* Only PBX-SFxxxXX is suitable for use on oxygen!!