

Badotherm pressure gauge model BDT19 is manufactured according to the EN837-1. The BDT19 gauge is fitted with a reduced volume tube system and offers excellent performance in combination with Diaphragm Seals. This reduces the effects of temperature giving a higher overall long-term accuracy. This pressure gauge is typically used for applications in the chemical, petro-chemical, oil & gas, power and utilities, machine building and general process industries. Safety comes first, with a blow-out feature, pressure elements are made of seamless drawn tubes and the welded type connection construction of the 100mm and 160mm. These gauges are designed to withstand the severest of operating conditions created by the ambient environment and the process medium.



DESIGN INFORMATION

DESIGN NORM EN 837-1	SAFETY DESIGNATION S1 as per EN837-2	INGRESS PROTECTION IP65 per IEC 60529
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STANDARD MODEL MATERIAL SPECIFICATIONS

PROCESS CONNECTION AISI 316(L)	TUBE AISI 316	CASE AISI 304, bayonet	BEZEL AISI 304, bayonet
MOVEMENT stainless steel	WINDOW glass	POINTER aluminium, black	DIAL aluminium, white with black markings

TECHNICAL SPECIFICATIONS

	100 mm	160 mm
Connection	1/2" BSP/NPT	1/2" BSP/NPT
Minimum range	-1 bar	-1 bar
Maximum range¹	1000 bar	1600 bar
Accuracy	1.6% FSV	1.0% FSV
Pointer	fixed	fixed
Mounting variations	A / C	A / C
Free zero	-	•
Internal limit stop	-	Min/Max
Connection construction	welded	welded
Blow out	on the back	on the back
Compensation plug, material²	On the top, NBR	On the top, NBR
Window gasket	NBR	NBR
PED (CE marking >200 bar)	•	•

¹ Maximum range 1/2" NPT is 1000 bar according EN-837 table 10

² HNBR for filled executions

SPECIAL EXECUTIONS

BDT19-01	autoclave, suitable for high ambient temperature
BDT19-S	casing and bezel in AISI 316(L)

OPTIONS

ACCESSORIES	please check for matching accessories such as siphons (BDT42), snubbers (BDT45), swivel gauges (BDT47), overpressure protectors (BDT49), diaphragm seals and instrument needle valves and manifolds
ATEX	EX II 2 GD c (ATEX 94/9/EC)
CALIBRATION CERTIFICATES	5 points (rising and falling)
CLEANING	for oxygen service, or oil and grease free (in case of filling use BPF05)
CONTACT	inductive / magnetic / electric (use BPF03 filling in case of liquid filling)
CASE FILLING	BPF01 (glycerine), BPF02 (silicon), BPF03 (for contacts), BPF04 (foaming service), BPF05 (ECTFE Inert for oxygen service)
POINTER	adjustable slotted (160mm only)
PROCESS CONNECTION	other
RESTRICTOR SCREW	AISI 316(L)
WINDOW	laminated safety glass, polycarbonate

PRESSURE DETAILS

WORKING PRESSURE

	100 mm	160 mm
steady	0.75 x full scale value	full scale value
fluctuating	0.67 x full scale value	0.9 x full scale value
short time	full scale value	1.3 x full scale value

TEMPERATURE DETAILS

CASE FILLING FLUID

		ambient	process
-	without	-40°C to 60°C	200°C
BPF01	glycerine	1000 cSt	-20°C to 60°C
BPF02	silicone	1000 cSt	-40°C to 60°C
BPF03	for contacts	80 cSt	-40°C to 60°C
BPF04	foaming service	50 cSt	-40°C to 60°C
BPF05	oxygen service	30 cSt	-40°C to 60°C

WINDOW

	ambient
glass	<400°C
safety glass	<200°C
polycarbonate	<120°C

GASKETS

	ambient
window NBR	<100°C
fill plug NBR	<100°C
fill plug HNBR	<150°C

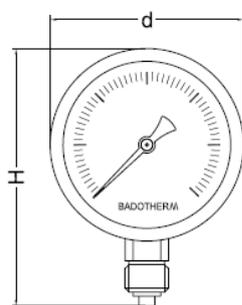
TEMPERATURE EFFECT

The variation of indication caused by the effect of temperature shall not exceed:
 $\pm 0.04 \times (\text{ambient temperature} - \text{reference temperature})\% \text{ of the span}$

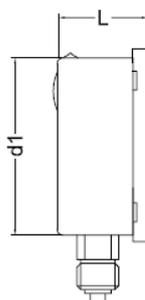
MOUNTING VARIATIONS

- type A bottom connection, direct mounting
- type C bottom connection, surface mounting

DRAWINGS



type A



type A

DIMENSIONS

ns	d	d1	L	H	weight	filled
100	110	100	49	142	0.53 kg	1.00 kg
160	160	149	50	200	1.02 kg	2.10 kg

All dimensions in mm



Holland – United Kingdom – Romania – India – Thailand – Dubai – USA

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