

Badotherm pressure gauge model BDT18-HP for high pressures above 1600 bar. Badotherm pressure gauge model BDT18-HP is manufactured according to the EN837-1 and is available in full stainless steel and suitable bourdon tube materials. This pressure gauge is typically used for applications in the hydraulic, water jetting and high pressure environments and machine building and general process industries. Safety comes first, with a blow-out feature, pressure elements made of seamless drawn tubes and welded type connection construction. These gauges are designed to withstand the severest of operating conditions of the ambient environment and the process medium.



DESIGN INFORMATION

DESIGN NORM EN 837-1	SAFETY DESIGNATION S1 as per EN837-2	INGRESS PROTECTION IP 65 per IEC 60529
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STANDARD MODEL MATERIAL SPECIFICATIONS

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

TECHNICAL SPECIFICATIONS

	100 mm	160 mm
Connection	9/16 - 18 UNF	9/16 - 18 UNF
Minimum range	>1600 bar / 25.000 psi	>1600 bar / 25.000 psi
Maximum range	7000 bar / 100.000 psi	7000 bar / 100.000 psi
Accuracy	1.0% FSV	1.0% FSV
Pointer	fixed	fixed
Mounting variations	A / C / D	A / C / D
Free zero	•	•
Internal limit stop	Min/Max	Min/Max
Connection construction	welded	welded
Blow out	on the back	on the back
Compensation plug material*	NBR	NBR
Window gasket	NBR	NBR
PED (CE marking)	•	•

* HNBR for filled executions

SPECIAL EXECUTIONS

BDT18-S HP	casing and bezel AISI 316(L)
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OPTIONS

PROCESS CONNECTION	M16x1.5 or 5/8-18 UNF, 1/2" BSP (not recommended > 1600 bar)
POINTER	micro adjustable, adjustable slotted
CASE FILLING	BPF01 (glycerine), BPF02 (silicon), BPF04 (foaming service)
CALIBRATION CERTIFICATES	5 points (rising and falling),
ATEX	EX II 2 GD c (ATEX 94/9/EC)
RESTRICTOR SCREW	AISI 316(L)

PRESSURE DETAILS

WORKING PRESSURE

	100 mm	160 mm
steady	full scale value	full scale value
fluctuating	0.9 x full scale value	0.9 x full scale value
short time	1.1 x full scale value	1.1 x full scale value

PRESSURE MATERIAL TABLE

pressure	material
1600...2500 bar	AISI 316L
3000...7000 bar	Ni-Span-C 902
3000 bar	25CrMo4*

* Not suitable for water

TEMPERATURE DETAILS

CASE FILLING FLUID

			ambient	process
-	without		-40°C to 60°C	200°C
BPF01	glycerine	1000 cSt	-20°C to 60°C	90°C
BPF02	silicone	1000 cSt	-40°C to 60°C	90°C
BPF43	foaming service	50 cSt	-40°C to 60°C	90°C

WINDOW

	ambient
safety glass	<200°C

GASKETS

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

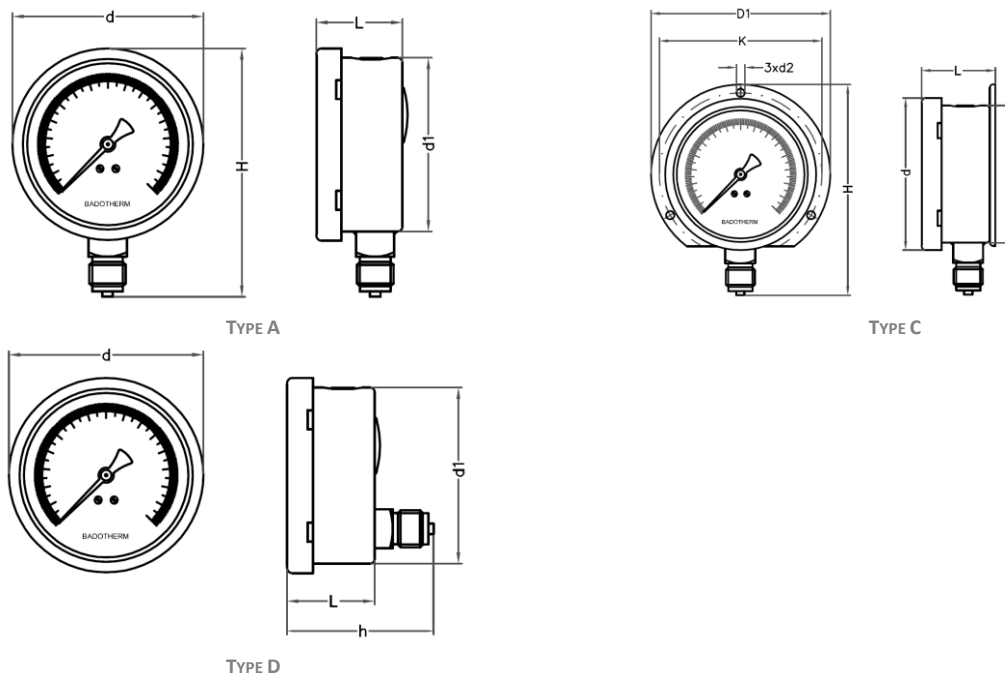
TEMPERATURE EFFECT

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
- type D back connection, direct mounting

DRAWINGS

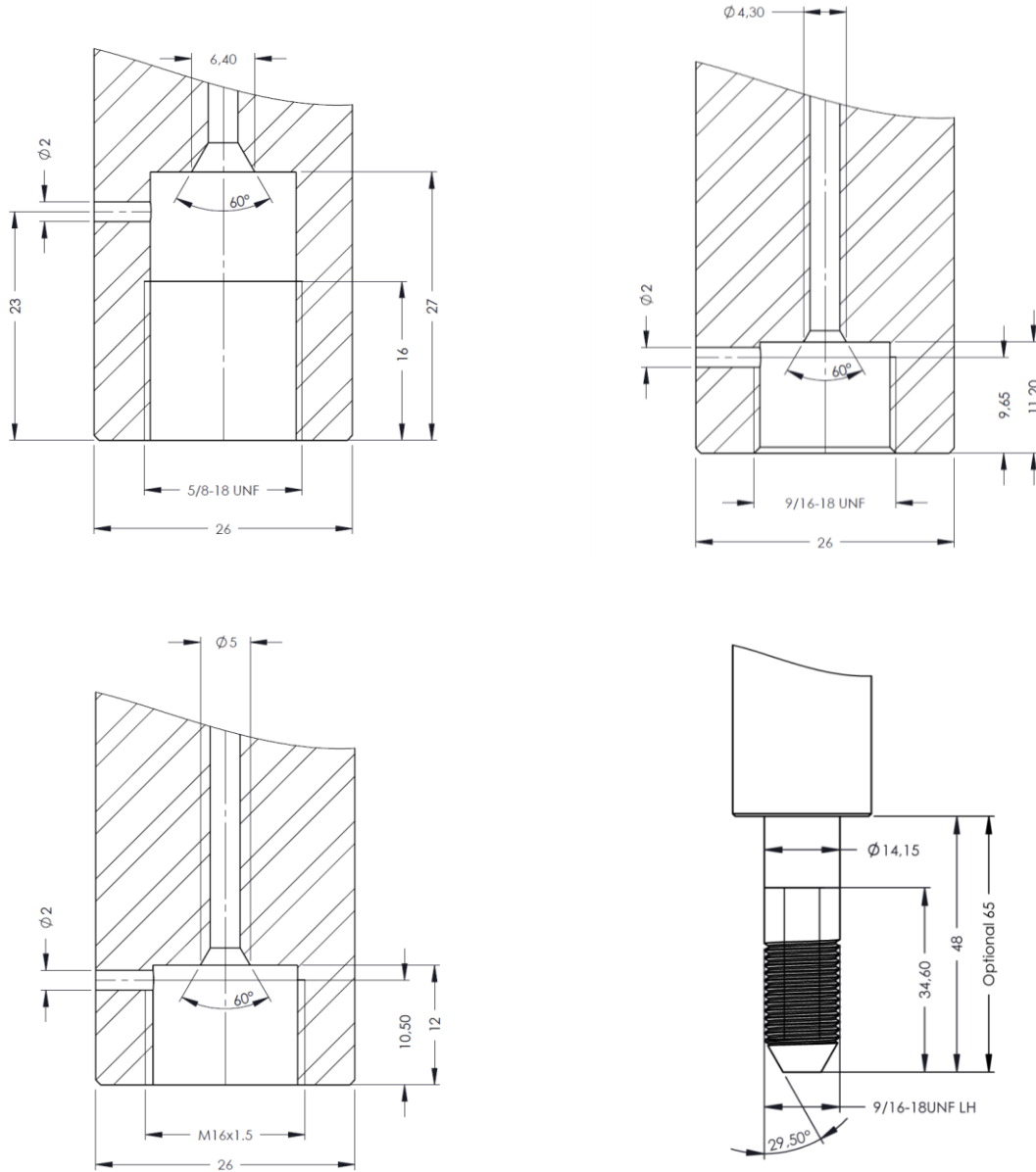


DIMENSIONS

ns	d	d1	D1	K	L	H	h	weight	filled
back flange									
100	110	100	130	118	49	142	83	0.65 kg	1.12 kg
160	160	149	196	178	50	200	84	1.20 kg	2.30 kg

All dimensions in mm

DRAWING CONNECTIONS



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

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