

Badotherm pressure gauge with contact, model BDT30, is manufactured according to the EN837-1 and is available in full stainless steel or Monel. This pressure gauge is typically used for applications in the chemical, petrochemical, 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 of the ambient environment and the process medium.



DESIGN INFORMATION

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

STANDARD MODEL MATERIAL SPECIFICATIONS

PROCESS CONNECTION	TUBE	CASE	BEZEL
AISI 316 (L)	AISI 316	AISI 304, bayonet	AISI 304, bayonet
MOVEMENT	WINDOW	POINTER	DIAL
stainless steel	glass	aluminium, black	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 range	1600 bar	1600 bar
Accuracy	1.0% FSV	1.0% FSV
Pointer	fixed	fixed
Mounting variations	A / C / D / E	A / C / D / E
Free zero	•	•
Internal limit stop	Min/Max	Min/Max
Connection construction	welded	welded
Blow out	on the back	on the back
Compensation plug, material*	On the top, NBR	On the top, NBR
Window gasket	NBR	NBR
PED (CE marking >200 bar)	•	•

* HNBR for filled executions

SPECIAL EXECUTIONS

BDT30-S	casing and bezel in AISI 316(L)
BDT30-M	process connection and pressure element in Monel 400, casing and bezel in AISI 316(L) suitable acc. ISO15156 / NACE MR01-75

OPTIONS

WINDOW	polycarbonate
PROCESS CONNECTION	other
RESTRICTOR SCREW	AISI 316 (L), Monel 400
POINTER	red pointer on dial
CASE FILLING	BPF03 (for contacts)
CLEANING	oxygen service (no filling possible)
CALIBRATION CERTIFICATES	5 points (rising and falling), switch point setting
CONTACT	inductive / magnetic / electric (use BPF03 filling in case of liquid filling)
ATEX	EX II 2 GD c (ATEX 94/9/EC)
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

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	1.3 x full scale value	1.3 x full scale value

TEMPERATURE DETAILS

CASE FILLING FLUID				WINDOW		GASKETS	
		ambient	process	ambient		ambient	
-	without	-40°C to 60°C	200°C	glass	<400°C	window NBR	<100°C
BPF03	for contacts	80 cSt	-40°C to 60°C	polycarbonate	<120°C	fill plug NBR	<100°C
			90°C			fill plug HNBR	<150°C

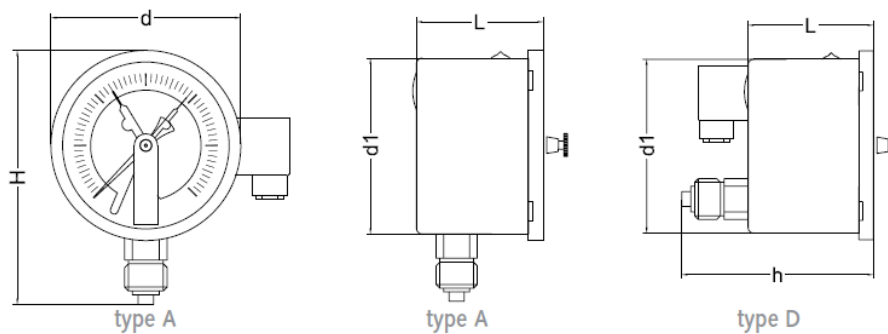
TEMPERATURE EFFECT

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 (flange material in same material as casing and bezel)
- type D back connection, direct mounting
- type E back connection, panel mounting (flange material in same material as casing and bezel)

DRAWINGS



DIMENSIONS

ns	d	d1	L	H	h	weight	filled
100	110	100	49	142	83	0.53 kg	1.00 kg
160	160	149	50	200	84	1.02 kg	2.10 kg

All dimensions in mm

CONTACT VARIATIONS

Single Contact	Make-contact, which is also called Normally Open (NO). The contact switch makes contact when the pointer reaches the set point in the clock wise position.		Typ S1/M1		Typ I-1
Single Contact	Break-contact, which is also called Normally Closed (NC). The contact switch breaks the contact when the pointer reaches the set point in the counter clockwise position		Typ S2/M2		Typ I-2
Double Contact	Make-contact, which is also called Normally Open (NO). Both of the contacts 'makes' contact when the pointer reaches the set point in the clockwise direction.		Typ S11/M11		Typ I-11
Double Contact	Make/Break-contact. The 1 st contact makes and the 2 nd contact breaks when they reach their set point.		Typ S21/M21		Typ I-21
Double Contact	Break/Make-contact. The 1 st contact breaks and the 2 nd makes breaks when they reach their set point.		Typ S21/M21		Typ I-21
Double Contact	Break-contact. Both of the contacts 'breaks' contact when the pointer reaches the set point in the counter clockwise direction.		Typ S22/M22		Typ I-22



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

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