

Built-up thermowell acc DIN 43772, type 5

Design description

Badotherm thermowell model TW111 is a built-up, fabricated type thermowell with a threaded process connection. The standard thermowell is made according to the DIN 43372 and is named the "type 5". The construction is available with straight stem. The standard material is AISI 316(L). Thermowells are designed to protect the temperature bulb from corrosive effect or other process conditions. It also allows replacing the temperature instrument without disturbing the process.

Wetted part materials

Material common name	UNS	Wst.
AISI 316(L)	S31603	1.4404

Process connection

Standard	Male thread
ISO 228-1 (BSP)	G 1/2 A – G 3/4 A
ANSI B 1.20.1 (NPT)	1/2" NPT – 3/4" NPT
ISO 965	M20 – M32

Instrument connection

Standard	Female thread
ISO 228-1 (BSP)	G 1/2 – G 3/4
ANSI B 1.20.1 (NPT)	1/2" NPT – 3/4" NPT
DIN 13-1 (M)	M20

Pressure & Temperature limits

Pressure limit	40 bar
Temperature limit	500°C

Dimension limits

Standard DIN 43772 length dimensions

Total Length (L)	Insert length U
110	82
170	142
260	232
410	382

Standard diameter dimensions

Bore size (d)
6.2
7
9
11



Material Certification

Material traceability and related certification are applicable for all process wetted parts. Material certification possibilities depend on the type of seal, the assembly construction and the materials used. Material certification is in accordance with EN10204 3.1.

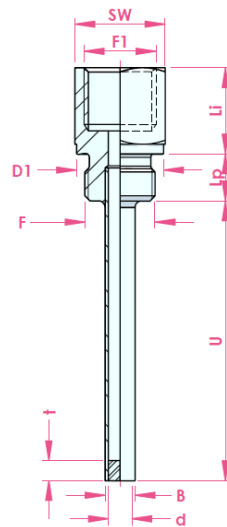
Marking & Traceability

All parts are marked with heat number, material designation, size, and rating. Badotherm adds a Badotherm reference number, heat number of the stem and the manufacturers name to the flange for traceability purposes.

Materials and origin

All materials according to the applicable standards. The standard sourcing of flanges is of international origin. Optionally regional preference can be requested, for example materials from EU origin.

Dimensions table:



Parallel thread with DIN 3852-2 gasket face

F	F1	Lp	Li	D1	SW	t	B	d	L
G ½ A (M20x1.5)	G ½ A (M20x1.5)	14	26.0	26 (25)	27	6.0	8	6.2	variable
							12	7	
							14	9	
G ¾ A (M27x2)		16		32	32		8	6.2	
							12	7	
							14	9	
								11	

All dimensions in mm, weight in kg

Thermowell selection

Selection	Suffix	Description
Thermowell type	BDTW111	Straight stem - threaded built up thermowell
Process thread size	N12M N34M G12M G34M	½" NPT ¾" NPT G ½" A G ¾" A
Instrument thread size	N12F N34F G12F G34F M20F G12M	½" NPT ¾" NPT G ½" G ¾" M20 G ½"A
Insertion length	U...	U length followed by U length in mm
Bore diameter	B62 B70 B90 B11	6.2mm 7.0mm 9.0mm 11.0mm Bore diameter may be selected in all dimensions. Please check if the ratio's for wall thickness and bore ratio are in line with the tables for dimensional limits.
Stem diameter	D08 D12 D14	8mm in combination with b=6.2mm 12mm in combination with b=7mm 14mm in combination with b=9 or 11mm
Material selection of wetted parts	S316	AISI 316(L) S31600/S31603

option selection

Options		
Accessory	PCH	Plug and chain mounted to the thermowell
Coating and treatments	K1	Cleaned from oil and grease
Certificates and testing ⁶	N75	2.1 NACE ISO 15156 (MR 01 75)
	PT1	2.1 Penetrant test certificate level 1 acc ISO 9712
	PT2	2.2 Penetrant test certificate level 2 acc ISO 9712
	PMI	2.2 Positive Material Identification
	WPS	2.2 Welding documents (WPS/PQR)
	IC32	3.2 Material certificate on materials
Special options	RD	Rush Delivery
	EU	European Origin materials

⁶: Test report and 3.1 certificate on wetted parts is standard part of supply.

Order related options

Options on complete order		
Certificates and testing	PMI 3PI	2.2 Positive Material Identification Third party inspection of goods
Packing	SW	Seaworthy packing

Change log

Date	Change

Holland – Romania – India – Thailand – Dubai – USA

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