

October 26, 2023

Attention: Mikhail Drobiz
THE BIONETICS CORPORATION
751 INTEK WAY
WESTERVILLE, OH 43082

The design submission, Tracking Number 2023-05557, Web Portal Number 2023-S3633, originally received on September 11, 2023 was surveyed and accepted for registration as follows:

CRN : 0F12263.2 **Accepted on:** October 26, 2023
Reg Type: RENEWAL **Expiry Date:** October 26, 2033
Drawing No. : 10008-3 SHT 1-3 Rev A
Fitting type: FLOW METERS

The registration is conditional on your compliance with the following notes:

*** The scope of this registration include renewal, company name change and revision only.*

As indicated on AB-41 Statutory Declaration or AB-351 Declaration of Conformity form and submitted documentation, the code of construction is ASME B31.3.

- It is our understanding that the fitting(s), included as the scope of this submission, that is(are) subject to the Safety Codes Act shall comply with the requirements of the indicated Standard or Code of Construction on the AB-41 Statutory Declaration or AB-351 Declaration of Conformity as supported by the attached data which identifies the dimensions, materials of construction, press./temp. ratings and the basis for such ratings, and the identification marking of the fittings.*
- This registration is valid only for fittings fabricated at the location(s) covered by the QC certificate attached to the accepted AB-41 Statutory Declaration or AB-351 Declaration of Conformity form.*
- This registration is valid only until the indicated expiry date and only if the Manufacturer maintains a valid quality management system approved by an acceptable third-party agency, and maintains a valid Certification of Authorization Permit if required by the jurisdiction where manufacturing takes place, until that date.*
- Should the approval of the quality management system lapse before the expiry date indicated above, this registration shall become void.*

An invoice covering survey and registration fees will be forwarded from our Revenue Accounts.

If you have any question don't hesitate to contact me by phone at (780) 433-0281 ext 3337 or fax (780) 437-7787 or e-mail Dick@absa.ca.

Sincerely,



POON, ASHLING, P. Eng.
DOP Cert. No. D00007936

**STATUTORY DECLARATION
Registration of Fittings**

Single or Multiple Fitting Designs within one Fitting Category

I, Mikhail Drobiz, Engineering Manager
(name of applicant) (position title) (must be in a position of authority)
of The Bionetics Corporation
(name of manufacturer)
located at 751 Intek Way, Westerville, Ohio 43082
(plant address)



do solemnly declare that the fittings listed hereunder, which are subject to the Safety Codes Act (select only one)

- comply with the requirements of _____ which specifies the dimensions, (title of recognized North American Standard) materials of construction, pressure/temperature ratings and identification marking of the fittings, or
- are not covered by the provisions of a recognized North American standard and are therefore ASME Section IX manufactured to comply with ASME B31.1, B31.3, TSSA Cl.6, ANSI 16.5 as supported by the (title of code of construction or other applicable document) attached data which identifies the dimensions, materials of construction, pressure/temperature ratings and the basis for such ratings, and the identification marking of the fittings.

I further declare that the manufacture of these fittings is controlled by a quality control program which has been verified as described in the below Table as being suitable for the manufacturing of these fittings to the stated standard, regulation, code, guideline or other applicable document. The fittings covered by the declaration for which I seek registration are as provided in the Supplementary Sheet(s) attached.

Quality Program Verification and Manufacturing Sites

A copy of the Quality Certificate from each manufacturing site must be included

Item #	Product Description, Model or Series	Quality Program	Scope of Certification	Expiry Date	Verifying Organization	Location(s) Plant Name and address
1.	Inline Flow Meter	ISO 9001:2015	Design, engineering, manufacturing	2025-10-09	MCNA	751 Intek Way, Westerville OH 43082
2.						

In support of this application, the following information, calculations and/or test data are attached:

- ** Drawing #10008-3 Rev.A; Maximum Pressure Calculations; Description of Weldable Fittings;
- Allowable Flow Tube Materials Worksheet; ISO Certification

elipheus Dublin
(Signature of the Declarer)

9/7/2023
(Date)

DECLARED before me at Westerville in the State of Ohio
(city) (province, territory, or state)
this 7th day of September, 2023
(Month) (Year)

(print) Benjamin Alsip
(a Commissioner of Oaths or Notary Public)

(sign) Benjamin Alsip
(a Commissioner of Oaths or Notary Public)

11/28/23
(expiry date (mm/dd/yy))



Commissioner of Oaths / Notary Public in and for: Delaware County, Ohio
(province, territory, or state)

For ABSA Office Use Only:

NOTES: **** Drawing Sht 1-3 Rev A registered.**

To the best of my knowledge and belief, the application meets the requirements of the Safety Codes Act and CSA Standard B51, Part 1, Clause 4.2, and is accepted for registration in Category 'H'

CRN: _____

Registered Date: 2023-10-26

Expiry Date: 2033-10-26

Signature: _____

(Signature of the Administrator/SCO)

The information you provide is necessary only for the administration of the programs as required by the Alberta Safety Codes Act and Regulations in the Pressure Equipment Discipline

2023-05557

ABSA

SAFETY CODES ACT - PROVINCE OF ALBERTA

ACCEPTED: CF12263 2

See acceptance letter for conditions of registration.

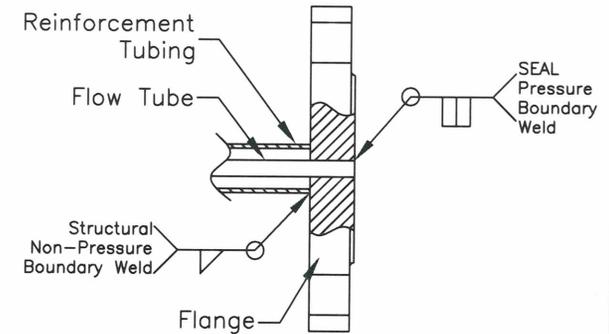
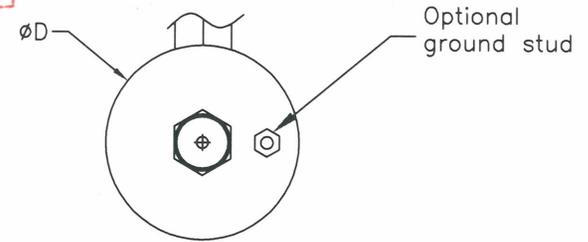
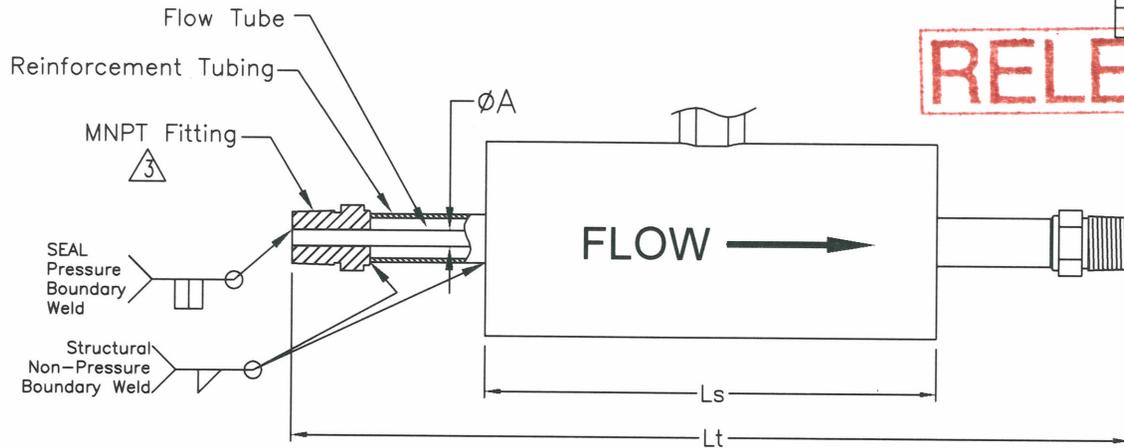
Date: **2023-10-26** By: Tik Stan Poon
ASHLING POON, P. Eng.
DOP: D00007936

This stamp and signature have been affixed electronically to this registered design as required by Section 20(1) of the Pressure Equipment Safety Regulation, in accordance with the Electronic Transactions Act

CONFIGURATION WITH WELDED FITTINGS

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
-	INITIAL RELEASE	10/14/21	AM
A	UPDATED TITLE BLOCK	7/5/23	<i>[Signature]</i>

RELEASE



- NOTE:
- ALLOWABLE FLOW TUBE MATERIALS - SS316/316L PER ASTM A269/A213
HASTELLOY C276 PER ASTM B622
ALLOY 20 PER ASTM B729
 - FLOW TUBE SHALL BE MADE FROM A SINGLE PIECE OF SEAMLESS TUBING WITH WITH NO MODIFICATION TO PRESSURE BOUNDARY UNLESS TUBE AS SHOWN ON SHEET #3 OF 3 IS EMPLOYED. THEN PRESSURE RATING SHALL BE PER TABLE 3 OR TABLE 4 ON SHEET #3 OF 3.
 - MNPT FITTING PER CUSTOMER REQUEST MAY BE SUBSTITUTED WITH OTHER WELDABLE FITTING OR BY ANY ANSI RATED FORGED FLANGE AS SHOWN IN DETAIL A.
 - ALL ASSEMBLED SENSORS SHALL BE HYDROSTATICALLY PROOF TESTED TO 10000PSI OR 2X RATED PRESSURE, WHICHEVER IS LOWER.

DETAIL A

TABLE 1. TU STYLE TRANSDUCER RATINGS AND DIMENSIONS BY TUBE SIZE

Tube Size	Tube wall (min)	Temp. Rating Max., [°F]	Pressure Rating Max., [PSI]	Max. DIMENSIONS [inches]			
				A	Lt	Ls	D
1/16"	.010	300	5700	.062	13.0	7.0	3.0
1/8"	.010	300	2750	.125	13.0	7.0	3.0
1/8"	.020	300	5900	.125	13.0	7.0	3.0
3/16"	.020	300	3800	.188	13.0	7.0	3.0
1/4"	.020	300	2800	.250	13.0	7.0	3.0
1/4"	.028	300	4000	.250	13.0	7.0	3.0
1/4"	.035	300	5150	.250	13.0	7.0	3.0
3/8"	.028	300	2600	.375	13.0	7.0	3.0
3/8"	.035	300	3300	.375	13.0	7.0	3.0
1/2"	.035	300	2400	.500	13.0	7.0	3.0
5/8"	.035	300	1900	.625	16.0	7.0	3.0
3/4"	.035	300	1600	.750	16.0	7.0	3.0
1"	.035	300	1150	1.000	22.0	10.0	3.0

TABLE 2. TUL/TUS STYLE TRANSDUCER RATINGS AND DIMENSIONS BY TUBE SIZE

Tube Size	Tube wall (min)	Temp. Rating Max., [°F]	Pressure Rating Max., [PSI]	Max. DIMENSIONS [inches]			
				A	Lt	Ls	D
1/16"	.010	300	5200	.062	9.0	5.0	3.5
1/8"	.010	300	2350	.125	9.0	5.0	3.5
1/8"	.020	300	5000	.125	9.0	5.0	3.5
3/16"	.020	300	3250	.188	10.8	5.8	4.5
1/4"	.020	300	2300	.250	10.8	5.8	4.5
1/4"	.028	300	3300	.250	10.8	5.8	4.5
3/8"	.028	300	2250	.375	13.0	7.0	6.6
3/8"	.035	300	2850	.375	13.0	7.0	6.6
1/2"	.035	300	2100	.500	16.0	9.0	8.6

2023-0557

ABSA

SAFETY CODES ACT - PROVINCE OF ALBERTA

ACCEPTED: OF12263 2

See acceptance letter for conditions of registration.

Date: 2023-10-26 By: *Tik Shan Poon*

ASHLING POON, P. Eng.
DOP: D0007936

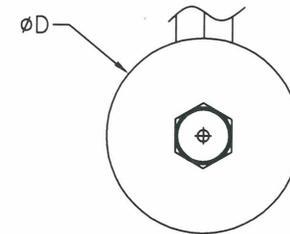
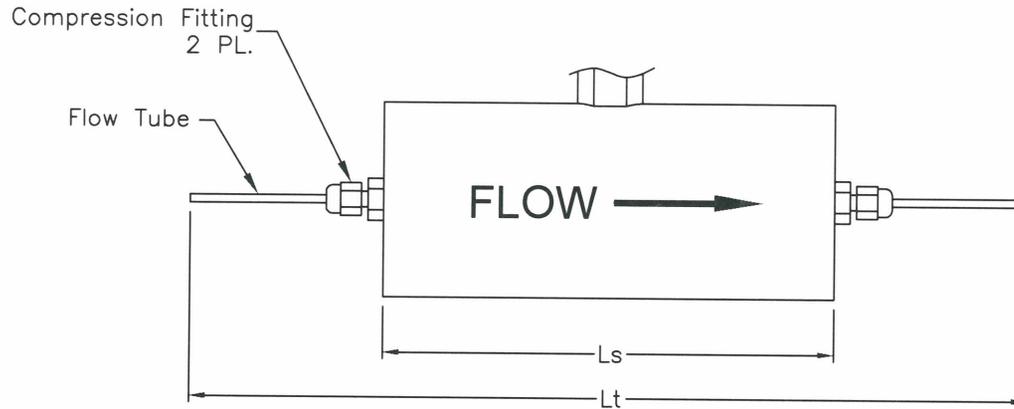
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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES DECIMAL TOLERANCES: X .004 XX .002 XXX .001 ANGLES .5 MIN	CONTRACT NO. DRAWN BY DATE CHECKED BY DATE DESIGNED BY DATE APPROVED BY DATE	THE BIOMETRICS CORPORATION COMMERCIAL ENGINEERING SERVICES GROUP OHIO, U.S.A.	Inline Flow Meter Sensor Details SIZE: C CASE CODE: 1WS12 DWG NO: 10008-3 REV: A SCALE: 1:2 SHEET: 1-OF-3
DO NOT SCALE PRINT		DATE: 10/06/21	

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
-	INITIAL RELEASE	10/14/21	AM
A	UPDATED TITLE BLOCK	7/5/23	A

OPTIONAL CONFIGURATION WITH TUBE STUBS

RELEASE



- NOTE:
- ALLOWABLE FLOW TUBE MATERIALS – SS316/316L PER ASTM A269/A213
HASTELLOY C276 PER ASTM B622
ALLOY 20 PER ASTM B729
 - PRESSURE RATING PER TABLE 1 OR TABLE 2 ON SHEET #1 OF 3.
FLOW TUBE SHALL BE MADE FROM A SINGLE PIECE OF SEAMLESS TUBING WITH NO MODIFICATION TO PRESSURE BOUNDARY UNLESS TUBE AS SHOWN ON SHEET #3 OF 3 IS EMPLOYED. THEN PRESSURE RATING SHALL BE PER TABLE 3 OR TABLE 4 ON SHEET #3 OF 3.
 - COMPRESSION FITTINGS ARE NOT PRESSURE CONTAINING. THEY ARE USED ONLY FOR ATTACHMENT OF THE SHELL TO THE FLOW TUBE.
 - ALL ASSEMBLED SENSORS SHALL BE HYDROSTATICALLY PROOF TESTED TO 10000PSI OR 2X RATED PRESSURE, WHICHEVER IS LOWER.

UNLESS OTHERWISE SPECIFIED:		CONTRACT NO.		DATE		THE BIONETICS CORPORATION COMMERCIAL ENGINEERING SERVICES GROUP OHIO, U.S.A.	
DIMENSIONS ARE IN INCHES		MD	10/06/21			 Inline Flow Meter Sensor Details	
DECIMAL TOLERANCES:							
.3 ± .01							
.001 ± .001							
ANGLES ± .1°							
DO NOT SCALE PRINT		SCALE	1:2	CAGE CODE	1WS12	DWG NO	10008-3
		REV	A			SHEET 2-OF-3	

WELDED TUBE ASSEMBLY WITH 1/4" TUBE ENDS

REVISIONS			
REV	DESCRIPTION	DATE	APVD
-	INITIAL RELEASE	10/14/21	AM
A	UPDATED TITLE BLOCK	7/5/23	A

RELEASE

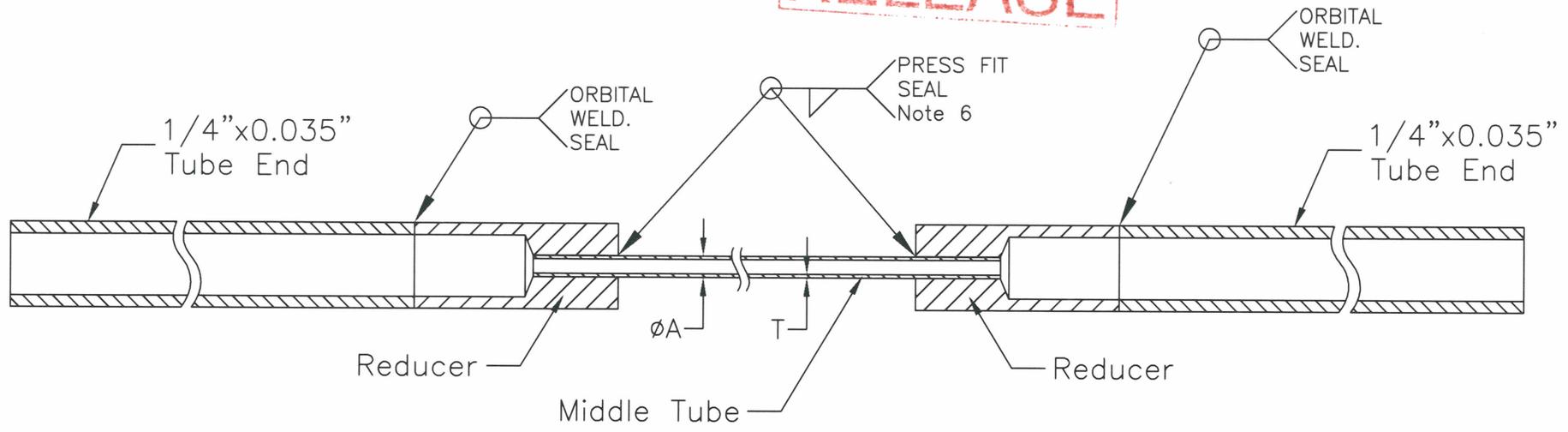


TABLE 3.
PRESSURE RATING BY TUBE SIZE FOR
WELDED TUBES ASSEMBLIES EMPLOYED
IN TUL/TUS STYLE TRANSDUCER

Tube Size	Tube wall (min)	Temp. Rating Max., [°F]	Pressure Rating Max., [PSI]
1/16"	.010	300	4650
1/8"	.010	300	2750
1/8"	.020	300	4650

TABLE 4.
PRESSURE RATING BY TUBE SIZE
FOR WELDED TUBES ASSEMBLIES
EMPLOYED IN TU STYLE TRANSDUCER

Tube Size	Tube wall (min)	Temp. Rating Max., [°F]	Pressure Rating Max., [PSI]
1/16"	.010	300	4650
1/8"	.010	300	2350
1/8"	.020	300	4650

NOTES:

- 1 FLOW TUBE MATERIALS - SS316/316L
- 2 MIDDLE TUBE AND 1/4" TUBE ENDS SHALL BE MADE FROM SEAMLESS ANNEALED TUBING PER ASTM A269/A213
- 3 ORBITAL WELD SHALL BE FULL PENETRATION SEAL WELD PER ASME B31.3. FALL THROUGH AT WELD IS NOT PERMISSIBLE.
- 4 MIDDLE TUBE ID MUST BE MAINTAINED ALL THE WAY FROM ONE END TO THE OTHER. PINCHED TUBE AND OVER WELDING ARE NOT ACCEPTABLE. NO FALL THROUGH AT WELD.
- 5 SMOOTH ID TRANSITION BETWEEN TUBE AND ADAPTER SHALL BE ACHIEVED AT BOTH ENDS. NO GAPS OR STEPS ARE ALLOWED
- 6 WELD LEG LENGTH SHALL BE AT LEAST 1.5 TIMES TUBE WALL THICKNESS T
- 7 WELD ASSEMBLY SHALL BE HYDROSTATICALLY PROOF TESTED TO 2X RATED PRESSURE

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES DECIMAL TOLERANCES: .X ± .1 .XX ± N/A .XXX ± N/A ANGLES ± N/A	CONTRACT NO.	THE BIONETICS CORPORATION COMMERCIAL ENGINEERING SERVICES GROUP OHIO, U.S.A.	
	DRAWN MD		
	CHECKED	DATE	Inline Flow Meter Sensor Details
	PROD ENG <i>[Signature]</i>	DATE 7/5/23	
DESIGN <i>[Signature]</i>	DATE 7/5/23		
DO NOT SCALE PRINT	APPROVAL <i>[Signature]</i>	DATE 7-5-23	SIZE A CAGE CODE 1WS12 DWG NO. 10008-3 REV A
SCALE N/A		SHEET 3-OF-3	