

THERMO-ELECTRIC COOLERS

Classic Model M115

Perma Pure's Baldwin™ Classic Series Model M115 features a unique slim design leaving additional space to install or access other sample conditioning system components. The M115 is a great choice for low flow rate (1 LPM) systems or as a pre-cooler in high flow rate applications.

Physical Description

Single Stream System
1 x 5" Heat Exchanger
1 Active (cooled to 4°C) Heat Exchanger
LED Temperature display (LCD Optional)



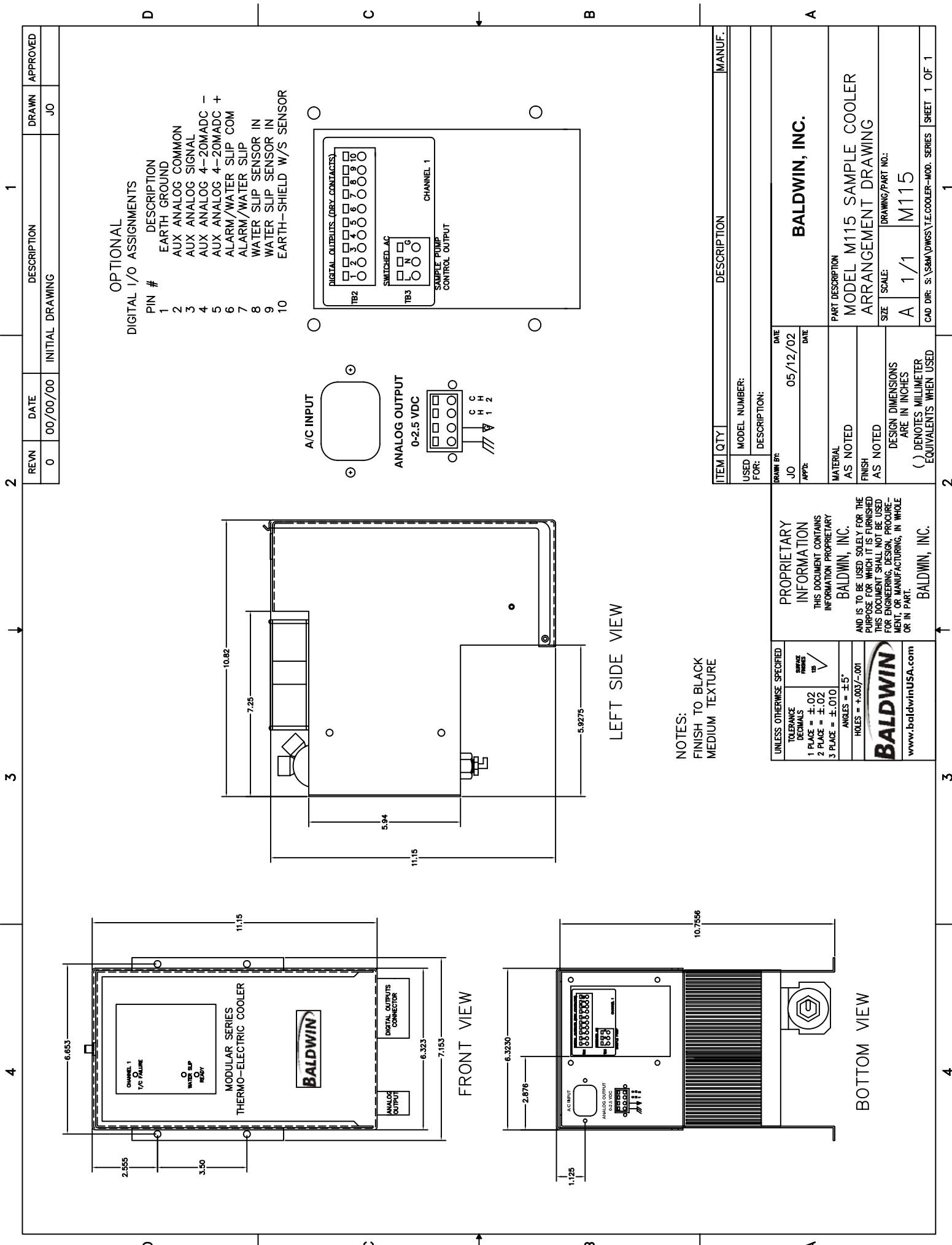
Operating Specifications

Sample Gas Flow Range	1-2 LPM 2.1-4.3 SCFH
Inlet Dew Point at Rated Flow	140°F @ 20% H ₂ O. 2 LPM 60°C
Dimensions	11.20 x 7.25 x 11.20 in. HWD 28.5 x 18.4 x 28.5 cm
Weight	15 lbs 6.8 kg
Maximum Inlet Sample Temperature	392°F (200°C) SS, Glass Impingers 280°F (138°C) Kynar® Impinger
Maximum Inlet Pressure	45 psig 3 bar / 2250 mmHg
Maximum Heat Exchanger Pressure Drop	<+1 in. H ₂ O
Ambient Temperature Range	33-104°F 0.6-40°C
Outlet Sample Gas Dew Point	41°F 5°C
Inlet Tubing Connection	3/8 in. FNPT
Outlet Tubing Connection	1/4 in. FNPT
Drain Tubing Connection	3/8 in. FNPT
Voltage	110 (220 optional) VAC 50/60 Hz
Thermoelectric Elements	40 mm
Power Supply	100W
Cooling Down Time	Less than 3 minutes

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OPTIONAL
DIGITAL I/O ASSIGNMENTS

PIN #	DESCRIPTION
1	EARTH GROUND
2	AUX ANALOG COMMON
3	AUX ANALOG SIGNAL
4	AUX ANALOG 4-20MADC -
5	AUX ANALOG 4-20MADC +
6	ALARM/WATER SLIP COM
7	ALARM/WATER SLIP
8	WATER SLIP SENSOR IN
9	WATER SLIP SENSOR IN
10	EARTH-SHIELD W/S SENSOR

A/C INPUT

ANALOG OUTPUT
0-2.5 VDC

DIGITAL OUTPUTS (DRY CONTACTS)

CHANNEL 1

SAMPLE PUMP
CONTROL OUTPUT

NOTES:
FINISH TO BLACK
MEDIUM TEXTURE

ITEM	QTY	DESCRIPTION	MANUF.
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MODEL NUMBER:
DESCRIPTION:

DATE
JO
APPR:

DATE
05/12/02
DATE

MATERIAL
AS NOTED

FINISH
AS NOTED

DESIGN DIMENSIONS
ARE IN INCHES
() DENOTES MILLIMETER
EQUIVALENTS WHEN USED

UNLESS OTHERWISE SPECIFIED
TOLERANCE
DECIMALS
1 PLACE = $\pm .02$
2 PLACE = $\pm .02$
3 PLACE = $\pm .010$

ANGLES = $\pm 5^\circ$
HOLES = $\pm .003/- .001$

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www.baldwinusa.com

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PART DESCRIPTION
MODEL M115 SAMPLE COOLER
ARRANGEMENT DRAWING

SIZE SCALE:
A 1/1

DRAWING/PART NO.:
M115

CAD DIR: S:\SAM\DWGS\T.E.COOLER-MOD. SERIES

SHEET 1 OF 1