

# COMPASS H | DESIGN ENVELOPE VARIABLE SPEED WET ROTOR CIRCULATORS | SUBMITTAL

**File No:** 10.65  
**Date:** NOVEMBER 26, 2020  
**Supersedes:** 10.65  
**Date:** OCTOBER 09, 2019

Job: \_\_\_\_\_ Representative: \_\_\_\_\_  
 \_\_\_\_\_

Ordered by: \_\_\_\_\_ Date: \_\_\_\_\_

Engineer: \_\_\_\_\_ Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_

Contractor: \_\_\_\_\_ Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

## TECHNICAL DATA

**Supply voltage:** 1 x 115 V - 10%/-+ 6%

	MINIMUM	MAXIMUM
<b>Amp</b>	0.05	0.72
<b>Watt</b>	5	45

**Motor protection:** The pump requires no external motor protection.

**Maximum working temperature:** 230°F (110°C) maximum

**Maximum working pressure:** 150 psi (10 bar).

**Maximum relative air humidity (rh):** 95%.

**Flow range:** 0 - 20 USgpm (0 to 1.26 L/s)

**Head range:** 0 - 20.0 feet (0 to 6.09 m)

**Enclosure class:** Type 2

**Insulation class:** H

**Certification:** ETL listed for US and Canada (conforms to ULSTD.778 certified to CSA STD. C22.2 NO.108-01)

\*NSF 372 (for stainless steel models)

## INLET PRESSURE

**Minimum inlet pressure in relation to liquid temperature:**

LIQUID TEMPERATURE	MINIMUM INLET PRESSURE
150°F (65°C)	3.0 ft (0.91 m)
167°F (75°C)	4.4 ft (1.34 m)
194°F (90°C)	9.2 ft (2.8 m)
230°F (110°C)	36.1 ft (11.0 m)

**Sound pressure level:** The sound pressure level of the pump is lower than 43 dB(A).

**Ambient temperature:** 32°F (0°C) - 104°F (40°C)

**Pumped liquids:** Water or water Glycol mix.

**Liquid temperature:** 36°F (2°C) - 230°F (110°C)\*\*

To avoid condensation in the control box and stator, the liquid temperature must always be higher than the ambient temperature.

AMBIENT TEMPERATURE	LIQUID TEMPERATURE	
	MIN.	MAX.
32°F (0°C)	35.6°F (2°C)	230°F (110°C)
50°F (10°C)	10°C (50°F)	230°F (110°C)
68°F (20°C)	68°F (20°C)	230°F (110°C)
86°F (30°C)	86°F (30°C)	230°F (110°C)
95°F (35°C)	95°F (35°C)	194°F (90°C)
104°F (40°C)	104°F (40°C)	176°F (80°C)

## MATERIALS OF CONSTRUCTION

**Pump body:** Cast iron (closed systems)  
 Stainless steel\*\* (open systems)

**Impeller:** Noryl

**Shaft:** Ceramic

**Bearings:** Ceramic

**Gasket material:** EPDM

## DIMENSIONS AND WEIGHTS

STAINLESS STEEL*	A	B	C	D	E	F	G	CONNECTION TYPE & SIZE	WEIGHT
Compass H 20-20 ss flange	6.50 (165)	7.08 (180)	5.75 (146)	4.00 (102)	2.00 (50)	3.25 (80)	5.31 (135)	Flange - (2) ½" dia. bolt holes	8.0 (3.6)
CAST IRON	A	B	C	D	E	F	G	CONNECTION TYPE & SIZE	WEIGHT
Compass H 20-20 ci flange	6.50 (165)	7.08 (180)	5.75 (146)	4.00 (102)	2.00 (50)	3.25 (80)	5.31 (135)	Flange - (2) ½" dia. bolt holes	8.0 (3.6)

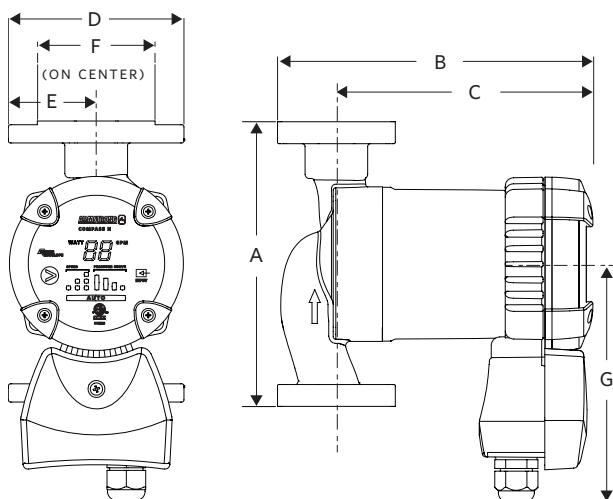
## NOTE:

All dimensions are in inches (mm) and weights in lbs (kg).

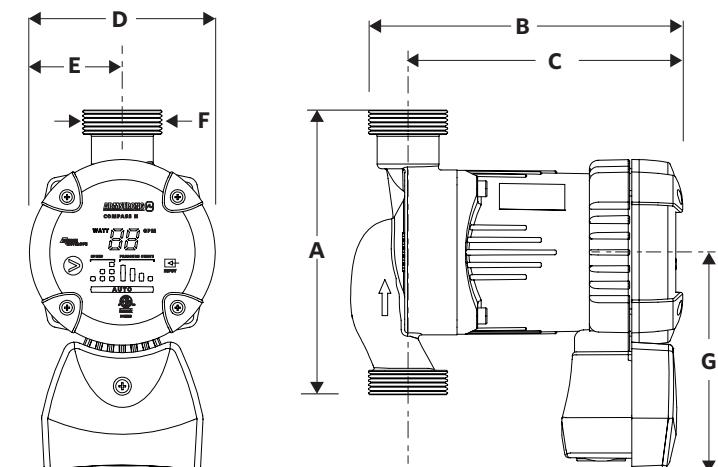
\*Certified &lt;0.25 weighted average percent lead and complies with California Health and Safety Code Section 116875 (commonly known as AB 1953).

\*\* For open systems, it is recommended that the liquid temperature be less than 150°F (65°C) to avoid precipitation of calcium.

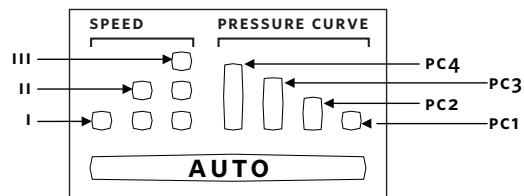
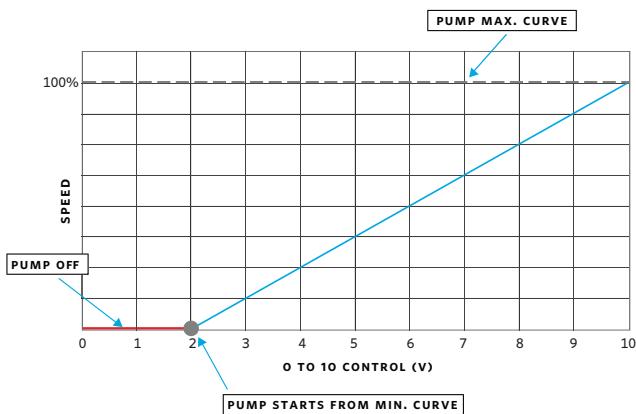
## COMPASS H FLANGE



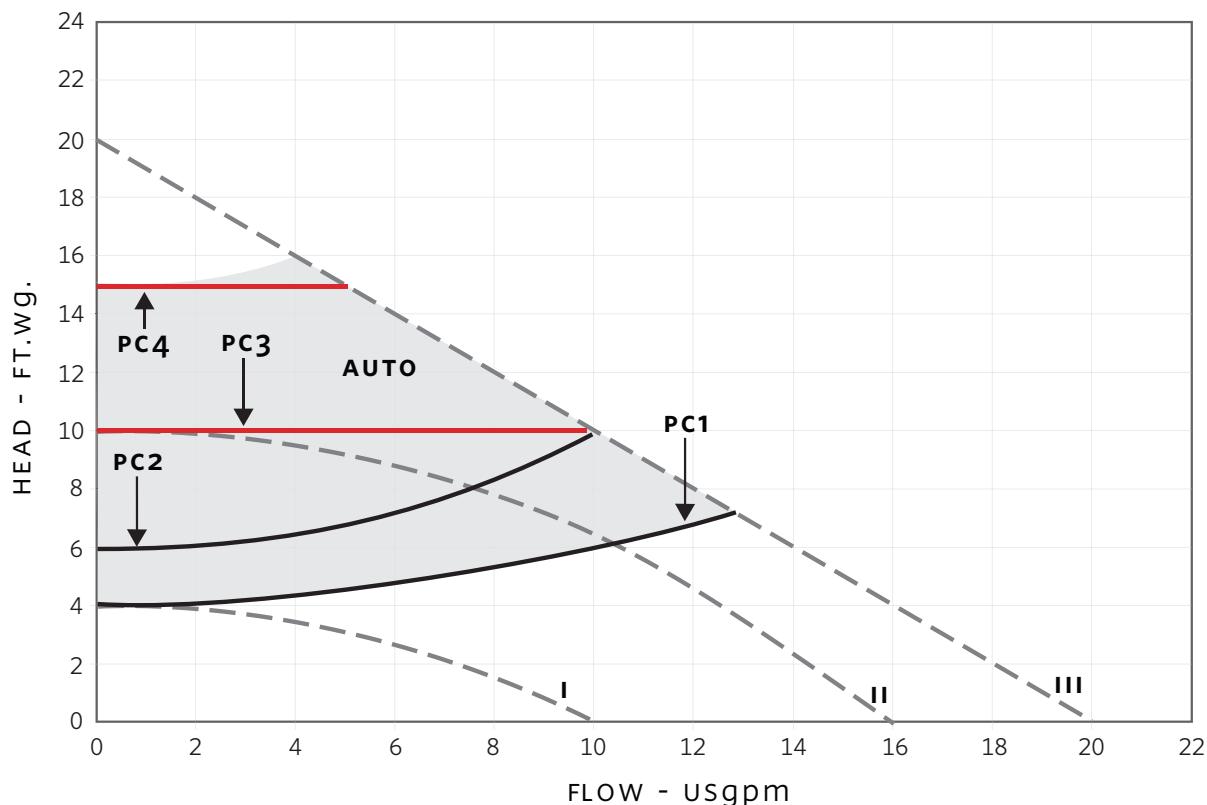
## COMPASS H UNION



## 0 - 10VDC OPERATION



Lights on the display indicate the Control mode selected.

**COMPASS H PERFORMANCE CURVES****COMPASS H COMPANION FLANGE KITS**  
(contains two (2) flanges, hardware & gaskets)**CAST IRON**

MODEL	PART NO.	SIZE
Compass H2o-20 CI	816013-111	0.75"
Compass H2o-20 CI	816012-111	1"
Compass H2o-20 CI	816011-111	1.25"
Compass H2o-20 CI	816009-111	1.5"

**LEAD FREE BRONZE\***

MODEL	PART NO.	SIZE
Compass H2o-20 SS	816013-841	0.75"
Compass H2o-20 SS	816012-841	1"
Compass H2o-20 SS	816011-841	1.25"
Compass H2o-20 SS	816009-841	1.5"

**LEAD FREE UNION FITTING SETS\***

(contains two (2) half unions &amp; gaskets)

MODEL	PART NO.	SIZE
Compass H2o-20 SSU	810120-320	1.25" NPSM x 0.5" SWEAT LEAD FREE
Compass H2o-20 SSU	810120-322	1.25" NPSM x 0.75" SWEAT LEAD FREE
Compass H2o-20 SSU	810120-324	1.25" NPSM x 0.75" FNPT LEAD FREE

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