Rhein Tech Laboratories, Inc.
360 Herndon Parkway
Suite. 1400
Herndon, VA 20170
http://www.rheintech.com

AMETEK Magnetrol USA, LLC
Model: R80
ID's: LPN-R80/2331A-R80
Standards: Part 15C/RSS-211
Project #: 2021097

Appendix A: FCC Part 1.1307, 1.1310, 2.1091, 2.1093; IC RSS-Gen: RF Exposure

MPE Calculation

Using FCC 1.1310 Table 1B as guidance, the maximum permissible RF exposure for an uncontrolled environment is 1.0 mW/cm^2 for the frequencies used in this device. The worst-case power is used for the calculation below.

The device is fixed use at >= 20 cm

The actual power density for the EUT calculated as shown below.

$$S = (P \times G)/(4 \times \pi \times d^2)$$

> *where*:
> S = power density
> P = transmitter conducted power in (W)
> G = antenna numeric gain
> d = distance to radiation center (m)

Antenna Type	Antenna Gain (dBi)	Antenna Gain (numeric)	Maximum EIRP Power (W)	Separation Distance (cm)	Calculated Power Density (mW/cm^2)	FCC Power Density Limit (mW/cm^2)
3" RC3 Horn Antenna	34	2512	1.54	20	0.3	1.0

FCC

The calculated power density is below the limit. Nonetheless, the recommended separation distance for this equipment is 20 cm.

ISED Canada

RSS-102 §2.5.2 Exemption Limits for Routine Evaluation – RF Exposure Evaluation

At or above 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 5 W (adjusted for tune-up tolerance).