REMOTE DATA CONCENTRATOR (RDC)

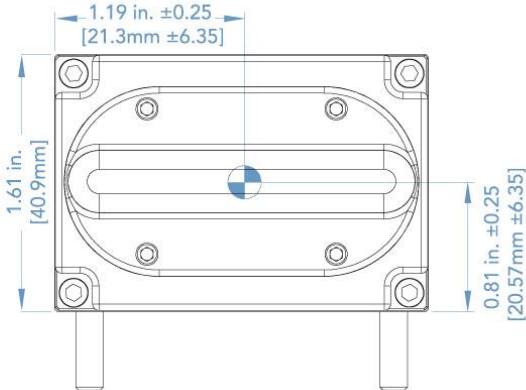

CAPABILITIES

- Captures analog and discrete sensor inputs at remote locations
- Software-defined data acquisition
- Safety critical soft-core processor for customer loadable analysis software
- ARINC 429, Ethernet (including PTP), MIMO Wi-Fi, and Bluetooth® outputs
- Lightweight and compact design
- Battery-powered option capable of charging in extreme temperature environments
- Electrically isolated 28 VDC input
- Unregulated 15 VDC, regulated 10 VDC, and current source outputs
- Internal ambient temperature sensor and vibration immune triaxial thermal accelerometer
- Programmable gain amplifiers
- Design Assurance to DO-254 and DO-178
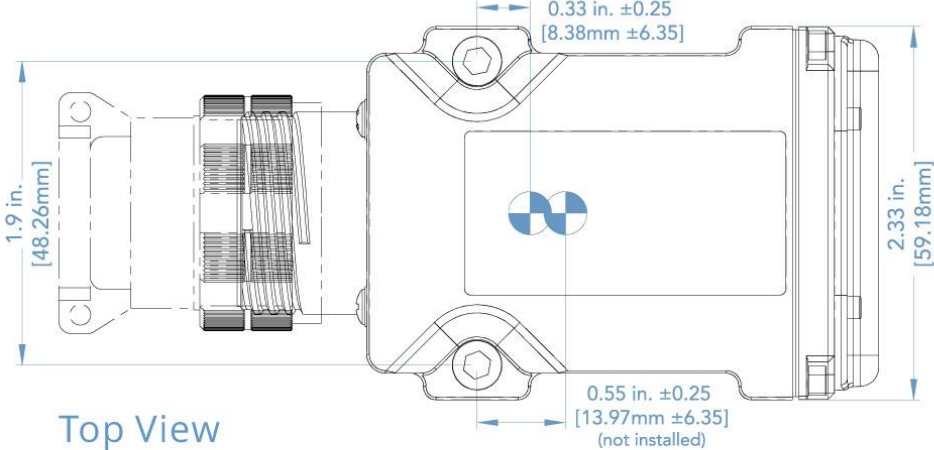- Qualified to DO-160G and MIL-STD-810F / 461F / 704F

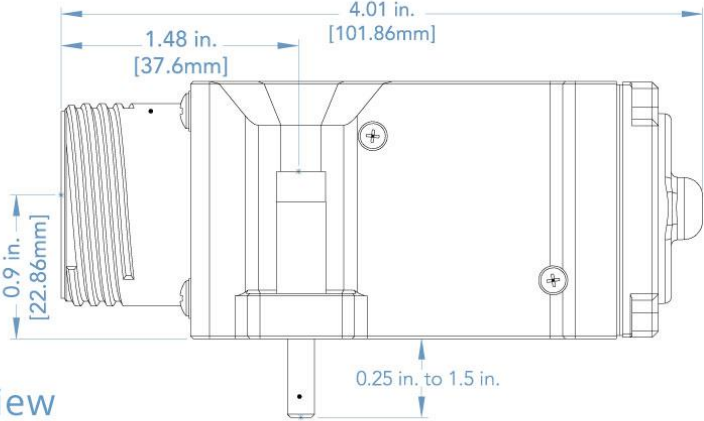| TYPE		STANDARD RDC	WIRELESS RDC
Inputs	Digital:	ARINC-429, ARINC-717, MIL-STD-1553	
	Analog:	Discretes, Frequency, Strain Gauges, Synchro/ LVDT/RVDT, 4 to 20 mA Current Loop, RTD	
Outputs		ARINC-429, Ethernet, IEEE 1588	ARINC-429, Ethernet, IEEE 1588, MIMO WiFi, Bluetooth®
Physical	Height:	1.6 in. (40.88mm)	1.6 in. (40.88mm)
	Width:	1.9 in. (49.3mm)	2.33 in. (59.2mm)
	Depth:	3.0 in. (77mm)	4.01 in. (101.9mm)
	Weight:	0.55 lb. (250g)	1.0 lb. (454g)
Power	Input Power:	28 VDC	
	Consumption:	5 W	
	Battery:	n/a	Sealed lead acid
J1 Connectors	Interface:	MIL-STD-D38999/20FF355A	
	Mating:	MIL-STD-D38999/26FF35PA	
Environmental		(DO-160G & MIL-STD-810F / 461F / 704F)	
	Operating Temp.:	-55 °C to 70 °C (-67 °F to 158 °F)	
	Non-operating Temp.:	-55 °C to 85 °C (-67 °F to 185 °F)	
	Humidity:	100%	
	Operational Altitude:	55,000 ft.	
	Operational Shock:	20 g	
	Vibration:	14 g	
	EMI/EMC:	DO-160G, MIL-STD-810F / 461F / 704F	
	Reliability:	> 14,000 operating hrs. MTBF	
	Cooling:	Passive convection	
Internal Sensor		Thermal sensors MEMS thermal triaxial accelerometer	

RDC – Wireless Dimensions

Back View

1.19 in. ±0.25
[21.3mm ±6.35]

1.61 in.
[40.9mm]

0.81 in. ±0.25
[20.57mm ±6.35]

Top View

0.33 in. ±0.25
[8.38mm ±6.35]

1.9 in.
[48.26mm]

2.33 in.
[59.18mm]

0.55 in. ±0.25
[13.97mm ±6.35]
(not installed)

Side View

4.01 in.
[101.86mm]

1.48 in.
[37.6mm]

0.9 in.
[22.86mm]

0.25 in. to 1.5 in.

Feel free to contact us at contact@vibratech.fr for more details