

Specifications

Operating Temperature Range

−40° to +85°C (−40° to +185°F)

5 to 95% humidity (noncondensing)

Type Tests

Electromagnetic Compatibility Immunity

Electrostatic Discharge Immunity:	IEC 60255-22-2:1996 [EN 60255-22-2:1997] IEC 61000-4-2:1995 [EN 61000-4-2:1995 + A1:1999 + A2:2001] IEEE C37.90.3-2001 Severity Level: 2, 4, 6, 8 kV contact discharge; 2, 4, 8, 15 kV air discharge
Radio Frequency Interference Immunity:	IEC 61000-4-3:2002 [EN 61000-4-3:2002] IEC 60255-22-3:2000 [EN 60255-22-3:2001] Severity Level: 10 V/m IEEE C37.90.2-2004 Severity Level: 35 V/m
Power Frequency Magnetic Field Immunity:	IEC 61000-4-8:2001 [EN 61000-4-8:1994 + A1:2001] Severity Level: 100 A/m (60 Sec), 1000 A/m (3 Sec), Level 5
Pulse Magnetic Field Immunity:	IEC 61000-4-9:1993:2001 [EN 61000-4-9:1994 + A1:2001] Severity Level: 1000 A/m, Level 5
Damped Oscillatory Magnetic Field Immunity:	IEC 61000-4-10:2001 [EN 61000-4-10:1994 + A1:2001] Severity Level: 100 A/m, Level 5
Radiated Radio Frequency:	ENV 50204:1995, 10 V/m (900 MHz and 1.89 GHz with modulation)
Emissions:	FCC Part 15, Class B

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

Type Test Compliance Criteria:

- 1) This device may not cause harmful interference.
- 2) This device must accept any interference received, including interference that may cause undesired operation.

Environmental Tests

Cold:	IEC 60068-2-1:1990 + A1:1993 + A2:1994 [EN 600068-2-1:1993 + A2:1995]
Temperature Shock on SEL-8310:	MIL-STD-810F Method 503.4 −40°C (−40°F) and +70°C (+158°F) with temperature stabilized inside the unit.
Dry Heat:	IEC 60068-2-2:1974 + A1:1993 + A2:1994 [EN 60068-2-2:1993 + A1:1995]
Damp Heat, Cyclic:	IEC 60068-2-30:1980 + A1:1985 [EN 60068-2-30:1999]
Vibration Resistance:	IEC 60255-21-1:1988 [EN 60255-21-1:1996 + A1:1996]
Vibration Endurance:	Severity Class 1
Vibration Response:	Severity Class 2
Shock Resistance:	IEC 60255-21-2:1988 [EN 60255-21-2:1996 + A1:1996]
Bump Test:	Severity Class 1
Shock Withstand:	Severity Class 1
Shock Response:	Severity Class 2
Seismic (Quake Response):	IEC 60255-21-3:1993 [EN 60255-21-3:1995 + A1:1995] Severity Level: Class 2 IEC 60529:2001 + CRDG:2003 [BS EN 60529:1992 Protection Class + REAF:2004]
Ingress Protection:	SEL-8300 = IP68 (4.5 m [15 feet]) SEL-8310 = IP54

Certifications

FCC:	15.249
IC:	RSS-210