

INTERFACE INSTRUMENTATION CHEAT SHEET

COMMON ABBREVIATIONS

| | | | |
|-----------------|-------|-----------------------|--------------|
| pound-force | lbf | Volt (Direct Current) | VDC |
| kilopound-force | K lbf | Millivolt per Volt | mV/V |
| Newton | N | Full Scale | FS |
| kilonewton | kN | Ohm | Ω |
| gram-force | gf | Megohm | M Ω |
| kilogram-force | kgf | Milliampere | mA |
| kilogram | kg | Rated Output | RO |
| hertz | Hz | Degree Fahrenheit | $^{\circ}$ F |
| kilohertz | kHz | Degree Celsius | $^{\circ}$ C |

PERFORMANCE

| | |
|----------------------------|--|
| Maximum Display Counts | Signifies the largest number the display can show |
| Internal Resolution Counts | The instrument's ability to divide the full scale into smaller pieces |
| Signal Input Range | The allowable electrical input range |
| Sensitivity | The smallest change the instrument can detect |
| Readings Per Second | The rate of the measurement, specifically how many times a sample can be captured within a single second |
| Filter Settings | Settings that smooth or reduce signal noise |
| Analog Output | A continuous voltage or current output proportional to load |
| Peak/Valley Capture | Records highest and lowest measured values |
| Serial Interfaces | Communication ports for data output |

TEMPERATURE PERFORMANCE

| | |
|------------------------------|--|
| Storage Temperature | Safe temperature range when powered off |
| Operating Temperature | Temperature range for accurate operation |
| Operating Humidity Range | Allowable humidity during use |
| Offset Temperature Stability | How much zero reading changes with temperature |
| Relative Humidity | The moisture level in the air |

ELECTRICAL

| | |
|------------------------|---|
| Excitation Voltage | Max power supply allowed |
| Input Range | The millivolt signal range the instrument can accept from a load cell |
| A/D Sample Rate - Hz | Hz or kHz is the frequency at which a continuous measurements and converted into discrete digital values (samples) per second |
| AC Voltages - VAC/, Hz | The required AC power voltage and frequency |
| DC Voltages - VDC | The required (input) to the instrument or supply voltage (output) from the instrument |
| Current | The required (input) to the instrument or supply current (output) from the instrument |

POWER

| | |
|-------------------|---|
| Supply | Max power supply allowed |
| Power Consumption | The rate at which electrical energy is used by a device or system |
| Power | The electrical energy required to operate |
| Battery Life | How long the instrument runs on a battery |
| DC Voltages - VDC | The required (input) supply voltage to the instrument |
| Current | Current used for power or outputs |
| AC Power | Power from an AC source |
| DC Power | Power from a DC source |

MECHANICAL

| | |
|------------------|---|
| Weight | How much the instrument itself weighs |
| Dimensions | Physical size details |
| Display | The screen that shows measurements and status |
| Material | What the instrument is made of |
| Connectors Type | Type of electrical interface or connection method |
| Unit Annunciator | Shows which measurement unit is active |

AVAILABLE OPTIONS

| | |
|-----------|---|
| Cables | Various lengths, gauges, and configurations available |
| Enclosure | The protective housing of the instrument |