



| Feature | 8210 (obsolete) | 7310 | 8310 | 9210 | Xpert | X-Link | Satlink |
|--|--|--|--|--|--|--|---|
| Ethernet | No | No | Yes | Yes | Yes | No | No |
| USB Serial | No | No | Yes | No | No | Yes | Yes |
| USB Memory | No | No | No | Yes | Yes | No | No |
| SD Memory | No | Yes 2GB | Yes 2GB | Yes 2GB | Yes 2GB | No | No |
| RS232 | 2 | 2 | 4 | 4 std, 8 Optional | 4 std, 8 Optional | No | 1 |
| RS485 | Yes | 0 | 1 | 1 std, 4 Optional | 1 std, 4 Optional | Yes (for SDI, Modbus slave) | No |
| Flash Log | No, log is battery backed-up RAM | 32MB | 32MB | 32MB | 32MB | 240Kb | 120,000 Readings |
| RTC | 60 Sec/month | TCXO 10 Sec/Month Max -40 to +60C GPS option via Serial port and Basic | TCXO 10 Sec/Month Max -40 to +60C GPS option via Serial port and Basic | TCXO 10 Sec/Month Max -40 to +60C GPS option via Serial port and Basic | TCXO 10 Sec/Month Max -40 to +60C GPS option via Serial port and Basic | 9.3sec/Month Max First Year 4.5Minutes/Year Max Ten Years (IridiumLink Time Sync to Iridium Network) | GPS synced to within 10ms UTC |
| Satlink Option | Yes | Yes | Yes | Yes | Yes | No | Yes |
| Iridium Option | No | Yes | Yes | Yes | Yes | Yes | No |
| GPRS Option | No | Yes | Yes | Yes | Yes | Yes | No |
| CDMA option | No | Yes | Yes | Yes | Yes | Yes | No |
| Wifi | via External device | via External device | via External device | via External device | via External device | Yes | via External device |
| Analog Inputs | qty 8, 13 bit A/D | qty 8, 16 bit A/D, dynamic range 23 bits | qty 8, 16 bits, dynamic range 23 bits | qty 8, 16 bits, dynamic range 23 bits | Unlimited with addition of external modules | qty 5, 24 bit | qty 4, 24 bit A/D |
| 4-20ma | via external resistor | built-in for 2 of the analog channels | built-in for 2 of the analog channels | via external resistor | via optional I/O module | built-in for 1 of the analog channels | via external resistor |
| Digital I/O | 5 Input, 5 Output | 4 Input 2 - Output Open collector with 100 ohm current limiting resistor, 100 mA, 15V max | 4 Input 2 - Output Open collector with 100 ohm current limiting resistor, 100 mA, 15V max | 8 Total (6 Bi-Directional, 2 Input only, 1 8Khz) | Unlimited with addition of external modules | 2 | 1 |
| Protection | Multistage input protection including varistor | Multistage input protection including spark gaps | Multistage input protection including spark gaps | Multistage input protection | Optional for each I/O module | Multistage input protection including spark gaps | |
| Switched Power | 1 - Switched Battery | 2 - Switched Battery, Switched +5V | 2 - Switched Battery, Switched +5V | 1 - Switched Battery | Optional through I/O module | 1 Switched Battery For Sensors Only | 1 Switched Battery For Sensors Only |
| I ² C Analog & Digital Module support | No | No | Yes | Yes | Yes | No | No |
| WS Low Level AC | No | No | No | Yes - DIO channel 7 and 8 | Optional though I/O module | No | No |
| Modbus Master | No | Yes | Yes | Yes | Yes | No | No |
| Modbus Slave | No | Yes | Yes | Yes | Yes | No | No |
| SDI Recorder | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| SDI Sensor | No | No | No | No | No | No | No |
| Display | 16 character LED | 2x20 LCD | 2x20 LCD | 2x20 LCD | 320x240 LCD | No | Optional 2x20 LCD |
| Keypad | 6 buttons | 6 buttons | 6 buttons | 3 buttons | touchscreen | Single button to wake & reboot | Optional 6 button |
| Operating Volt | 10-16 VDC recommended | 10-16 VDC recommended 20VDC MAX | 10-16 VDC recommended 20VDC MAX | 10-16 VDC recommended 20VDC MAX | 10-16 VDC recommended 20VDC MAX | 8-16VDC | 10.4-15VDC |
| Standby current | 1ma | 3ma | 3ma | <3ma | <3ma | 2ma | 8.2mA Typical |
| Operating Current | 30ma (display off) | 70mA Display active 30mA active (display off) | 70mA Display active 30mA active (display off) | 70mA Display active 40mA active (display off) | 140mA Display active 40mA active (display off) | 20mA Active | 300 bps 2.7 Amp (Typ.) 1200 bps 3.4 Amp (Typ.) |
| Solar Panel Regulator | No | 20 watts | 20 watts | No | No | 30 watts | No |
| Removeable Term Strips | Yes | Yes | Yes | Yes | Yes | No | Yes |
| Max Measurements | | No limit | No limit | No limit | No limit | 16 | 16 |
| BASIC Programming | Tiny-Basic | Yes | Yes | Yes | Yes | No | No |
| C++ with SDK | No | Yes | Yes | Yes | Yes | No | No |
| Equations | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| GUI | No | No | No | Yes | Yes | Yes | Yes |
| Android App Available | No | No | No | No | Yes | Yes | No |
| Iphone App Available | No | No | No | No | No | Yes | No |
| Spanish | | No | No | No | No | No | No |
| French | | Voice | Voice | Voice | Voice | No | No |
| Telephone / Voice Modem | Yes | Yes | Yes | Yes | Yes | No | Yes |