



Data Collection Platform Model 1191-I

allweatherinc

DESCRIPTION

The Model 1191-I Data Collection Platform (DCP) is used with Automated Weather Observing Systems (AWOS) to collect, process, and log sensor signals. The DCP is located at the sensor station, and collects data from the sensors, performs error detection on the received information, converts the sensors' data into engineering units, and transmits a message packet containing sensor data and status information to the Central Data Platform (CDP) once every five seconds. The DCP can communicate with the CDP using one of several available methods: RS-232, RS-485, UHF radio, Ethernet or wireless data radio. The Model 1191-I DCP mounts to the sensor tower or a mounting pole with Unistrut brackets. Optional barometric pressure sensor (Model 7150) and radio kits mount inside the enclosure. A keypad and LCD display screen are located inside the enclosure for viewing sensor data and performing maintenance checks. The DCP is equipped with a battery charging circuit that allows it to be powered by an optional rechargeable 12 V backup battery during power outages.

The Model 2715 Universal Power and Communication Module (UPCM) provides powerful data logging capabilities and the power supply and communication interface to the DCP and the connected sensors through analog, serial or digital I/O.

The Model 1191 DCP is Federal Aviation Administration (FAA) compliant, meeting all of the most current regulatory requirements.



Supported Sensors	
2020 / 2030	Wind Sensors
2040, 2041, 9620	Ultrasonic Wind Sensor
5190, 5191	Temp/Relative Humidity Sensor
8190	MARS
7150	Barometric Pressure Sensor
11906	Barometric Pressure Sensor Kit
6011 / 6021	Rain Gauges
8400	Transmissometer
8364 & 8365	Visibility Sensor
8339	Ceilometer
6490 / 6498	Present Weather Sensor
6495 / 6496	Freezing Rain Sensor
6500	Thunderstorm/Lightning Sensor
3022	Pyranometer
6900 series	Surface Sensors
One auxiliary voltage input sensor (0-10 V DC)	
Integrated with Model 2715 UPCM	

SENSORS

SPECIFICATIONS

Parameter	Specification
Display	2 lines x 20 characters LCD
Keypad	12-character keypad
Electrical	
AC Supply Voltage	85–265 V AC, 10 A 47–63 Hz
	Protected by two 10 A slow-blow fuses, surge-suppressed AC line voltage is also available to power other devices up to 500 W.
Solar Supply Voltage (<i>optional</i>)	8–37 V DC (must be at least 15 V DC to charge backup battery)
AC Output Voltage	24 V AC, 8 A 47–63 Hz
DC Output Voltage	Switch-selectable 12 V DC or 24 V DC 100 W max
DC Output Module	-5 V DC, 2A +12 V DC, 1A
Individually Configurable Serial Ports	
Number of Serial Ports	3 (including 1 optional port)
Serial Protocols	RS-485 (half duplex) RS-485 (full duplex) 3-wire RS-232 (no flow control)
Serial Baud Rates	1200 to 15200 bps
Data Bit Setting	5, 7, or 8
Parity Setting	Odd, Even, or None
Step Bits Setting	1 or 2
Serial Port Connectors	Pluggable Terminal Blocks 3.81 mm pitch
Modem	Optional wireless or hardwired (up to 4000 ft with RS-485) communication available
Analog I/O (<i>optional</i>)	8-ch Analog Input 16 bit
Digital I/O (<i>optional</i>)	8-ch Isolated Digital I/O
USB (<i>optional</i>)	USB 3.0
Data Logging	Up to 2GB
Ethernet Port	
TCP/IP	10/100 Base-T
Connector	RJ-45 Jack

Parameter	Specification
Counter	
Count Range	0 to 10,000 s ⁻¹
Maximum Voltage	5 V DC
Connector	Pluggable Terminal Blocks 3.81 mm pitch

Environmental		
Operating & Storage Temperature	Without Heater	-40 to +70°C (-40 to +158°F)
	With Heater	-70 to +70°C (-94 to +158°F)
Humidity	0-100% (noncondensing)	
Mechanical		
Mounting	Mounting slots on enclosure, diameter = 0.11" (0.29 cm), held in place by #8 spring-load panel screw at top of enclosure	
Enclosure Material	Aluminum and Fiberglass	

ORDERING INFORMATION

Part Number	Description
1191-I	Data Collection Processor w/Universal Power Supply and Communications Module
M404893-00	Serial Port Module
M404895-00	+5 V and -12 V DC Output Module
M406306-00	256MB microSD Card
M442089-00	10 A 250 V, 5x20 mm Slow Blow Fuse
M438130-00	Backup Battery

DIMENSIONS & WEIGHTS

DCP Module	
Size	38.0 cm x 42.0 cm x 16.0 cm (15.0" x 16.5" x 6.25")
Weight	6.8 kg (15 lb)
Model 1191-I DCP with Enclosure	
Size	39 cm x 53 cm x 28 cm (15.5" x 20.75" x 11")
Weight	12 kg (26 lb)
Shipping Weight	16 kg (35 lb)



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