

Comparison Table for Larger Dataloggers

FEATURE	CR3000	CR5000	CR7 (see note 1)	CR9000X (see note 1)
Max. Scan Rate (Hz)	100	1667	80	100,000
Analog Inputs	28 SE or 14 diff	40 SE or 20 diff	28 SE or 14 diff per CR723 or CR723T	28 SE or 14 diff per CR9050, CR9051E, or CR9055(E)
Pulse Counters	4	2	4 per CR724	12 per CR9071
Switched Excitation Channels	4 voltage 3 current	4 voltage 4 current	8 voltage per CR725	10 voltage per CR9060
Digital Ports (see note 2)	3 SDM, 8 I/Os or 4 RS-232 COM (see note 3)	8 I/Os 1 SDM	8 outputs per CR725	1 SDM; 8 outputs per CR9060 or 16 I/Os per CR9070
Continuous Analog Outputs	2	2	2 per CR725	6 per CR9060
Communications/ Data Storage Ports	1 CS I/O 1 RS-232 1 Parallel Peripheral	1 CS I/O 1 RS-232	1 CS I/O	1 CS I/O 1 RS-232 1 10baseT/100baseT
Input Voltage Range (Vdc)	±5	±5	±5 (±50 w/CR726)	±5 w/CR9050 or CR9051E, ±50 w/CR9055(E), ±60 w/CR9058E
Analog Voltage Accuracy	±(0.04% of reading +offset), 0° to 40°C	±0.05% FSR, 0° to 40°C	±0.01% FSR, 0° to 40°C	±(0.07% of reading + 4 A/D counts), -25° to +50°C
Analog Resolution	to 0.33 µV	to 0.33 µV	to 50 nV	to 0.76 µV
A/D Bits	16	16	16	16
Standard Temperature Range (°C)	-25 to +50	-25 to +50	-25 to +50	-25 to +50
Extended Temperature Range (°C)	-40 to +85	-40 to +85	-40 to +70	-40 to +70
Standard Memory (bytes)	2 M Flash for operating system 4 M for CPU usage, program storage, and data storage	128 k program 2 M data storage	24 k ROM 40 k RAM	128 k program 128 M data storage
Optional Data Storage (bytes)	N/A	N/A	512 k w/CR7 709	N/A
Power Requirements (Vdc)	10 to 16	11 to 16	9.6 to 15	9.6 to 15
Typical Current Drain (mA)	2 (sleep mode) 3 (1 Hz sample rate) 10 (100 Hz sample rate)	1.5 (sleep mode) 4.5 (1 Hz sample rate) 200 (5 kHz sample rate)	3.5 to 6 (quiescent) ~16 (processing) ~100 (analog meas.)	750 to 1000 (processing) 750 to 4000 (analog meas.)
Dimensions (inches)	9.5 x 7.0 x 3.8	9.8 x 8.3 x 4.5	17 x 12 x 6 (ENC7L) 20 x 13 x 10 (ENC7F) 19 x 19 x 10 (ENC7XL)	15.75 x 9.75 x 8 (lab enclosure) 18 x 13.5 x 9 (env. enclosure) 10 x 11 x 9 (CR9000XC)
Weight (lbs)	10.7 (rechargeable battery) 8.3 (alkaline battery) 3.6 (w/o battery)	12.2 (w/battery) 4.5 (w/o battery)	~40 (in ENC7F)	~30 (lab enclosure) ~40 (env. enclosure) ~27 (CR9000XC)
SDI-12 Supported	yes	yes	no	no
PAKBus Supported	yes	no	no	no
Modbus Supported	yes	no	no	no
Data Storage Method	table	table	mixed-array	table
Programming Language	CRBasic	CRBasic	Edlog	CRBasic
CE Compliant	yes	yes	yes	yes
Warranty	3 year	3 year	3 year	3 year

Notes:

1. For the CR7 and CR9000X, the current drain, weights, and specific number of input/output channels depend on the I/O cards or modules chosen.
2. Certain digital ports can be used to count switch closures.
3. For the CR3000, the I/O ports can be paired as transmit and receive for measuring smart serial sensors.
4. We recommend you confirm system configuration and critical specifications with Campbell Scientific before purchase.