



High-resolution digital cameras

with video capabilities

Overview

The CC5MPX and CC5MPXWD are high-resolution digital cameras with video capabilities. They produce JPEG images with a resolution of up to 5 megapixels, and shoot videos with a resolution of up to 720P. Power conserving modes allow the cameras to be used in remote battery-powered installations.

The CC5MPX and CC5MPXWD have several options for image acquisition and storage. Still images or videos can be taken based on an internal timer, motion detection, or a trigger from a PakBus device (datalogger or MD485). The images or videos can then be stored on an SD card, saved in a datalogger's

memory, sent to a PC via email, or transmitted to an FTP server.

Designed to work in harsh environments, the cameras can operate at temperatures as low as -40°C and as high as 60°C . They have an integrated environmentally sealed enclosure that protects them from moisture and high-humidity. Additionally, the CC5MPXWD includes a window defroster that prevents and removes light frost and icing* from the camera's window.

* With extreme icing or riming conditions and low temperatures, the CC5MPXWD's window defroster may not be able to clear the window due to the power constraints of the defroster.

Benefits and Features

- › 5 Megapixel image sensor
- › Video capable of 720P
- › C-Mount Lens with a DC IRIS
- › Programmable still image resolutions (JPEG)
- › SD or SDHC memory card slot
- › Web page interface (only needs a web browser for communications)
- › Integrated rugged outdoor rated enclosure
- › Low power consumption
- › Operates in extreme temperatures



Connections

The CC5MPXPWRCBL cable connects the camera to the power supply and is required to use the camera. This cable is also used to attach the camera to a datalogger COM port, MD485, or PC. Connection to the PC allows the camera to be configured via our Device Configuration utility (the DB9M-TERM interface that is shipped with the camera is also required).

An Ethernet cable is also required. Typically the RJ45 Environmental Cable (010863) is used. A standard Ethernet cable can be used instead of the 010863 for indoor connections or for temporary outdoor connections while the weather is good.

The Ethernet cable connects the camera to a network router, cellular modem, or laptop. This connection allows access to a web interface used for camera configuration, targeting, and focusing. System status, date, time, and other information are also displayed on the web interface.



The connectors have metal caps that are chained to the camera.



To the left is a photograph taken by the CC5MPX camera. Campbell Scientific Canada installed the camera high above Edmonton's spectacular river valley on the University of Alberta's H.M. Tory Building. The camera records visual weather conditions every 15 minutes and transfers the image via FTP to a local server.

Ordering Information

Digital Cameras

- | | |
|----------------------------|---|
| CC5MPX
010861 | CSC High Resolution Digital Network Camera - without Memory Card (-40° to +60 °C) |
| CC5MPXWD
010859 | CSC High Resolution Digital Network Camera - with window defroster (-40° to +60 °C) |

Accessories

- | | |
|---------------|--|
| 008277 | CC5MPX Camera Mounting Bracket |
| 010862 | CC5MPXPWRCBL Power Cable c/w 3 m cable* |
| 010863 | RJ45ENVCBL Ethernet Cable for CC5MPX c/w 3 m cable |

*Other cable lengths available to special order

009003

Ethernet Surge Protector helps protect the device from surges through the Ethernet cable. A straight-through Ethernet cable is required to connect the 009003 to the camera. Another Ethernet cable connects the 009003 to the computer.

009070

4 GB Industrial grade SD memory card

009071

8GB Industrial grade SD memory card



Specifications

Operating Power

CC5MPX:	9 to 30 Vdc
CC5MPXWD:	9 to 16 Vdc

Current Drain

Operating (camera only):	250 mA (maximum at 12 Vdc)
Quiescent:	≤1 mA (off power mode)
CC5MPXWD defroster on:	1.2 A (maximum at 16 Vdc); 1 A (typical at 12 Vdc)

Operating Temperature: -40° to +60°C

CC5MPXWD Heating

Element Resistance: 18 Ohm

Clock Accuracy: ±2 min./year (-40° to +60°C)

Lens

Mount:	C-type
IRIS:	DC compatible
Standard Lens:	4 to 12 mm, as standard, 10-40 mm to special order

Image or Video

Capture Triggers: Two independent self timers; external trigger; motion detection; web page control

Programmable Still Image Resolutions (JPEG): 2592 x 1944; 1280 x 960; 1280 x 720; 640 x 480; 640 x 352; 320 x 240; 320 x 176

Video: Capable of up to 720P for 1280 x 720 (MPEG4), 640 x 480 (MJPEG), 320 x 240 (MPEG4)

External Input Signal

Logic Low Level:	0.65 Vdc (-20 Vdc absolute min.)
Logic High Level:	>2.0 Vdc (+20 Vdc absolute max.)
Minimum Pulse Width:	10 ms

Communication Interfaces: RS-232 port; RS-485 port; Ethernet 10/100

Communications Protocols: PAKBUS; FTP; email; Web page interface via web browser

Communication Switched Power Output

Maximum Output Current: 750 mA

Maximum Baud Rate: 115.2 kbps (RS-232, RS-485 only)

Memory Card Interface

Type:	Secure Digital (SD)
File System:	FAT32
File Type:	JPEG (image), AVI (video)
Size:	Verified up to 16 GB

Image Capture Time (from wakeup to start of capture)

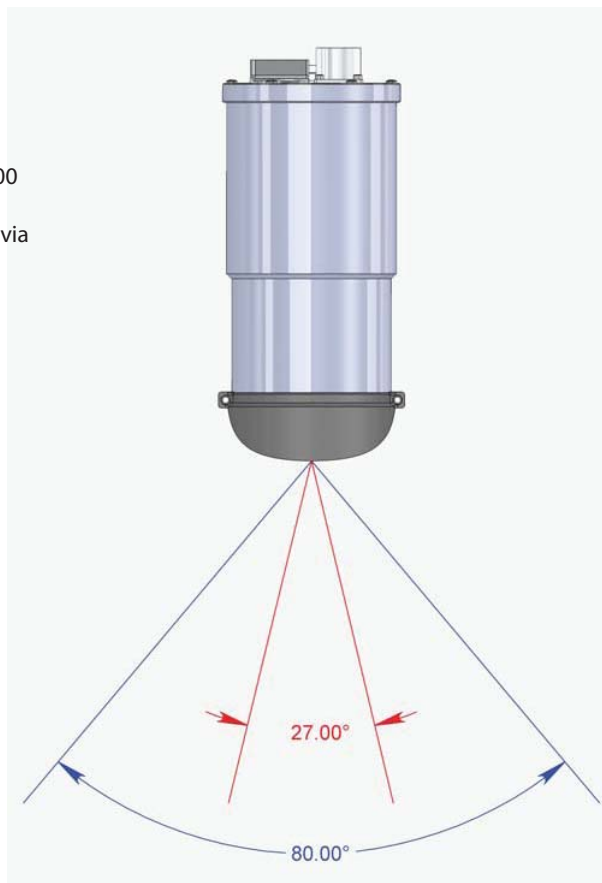
Fully On:	<1 s (5 MP images take longer)
Partially On:	10 s
Deep Sleep:	15 s
Off State:	90 s

Dimensions

Diameter:	9.3 cm (3.7 in.)
Length:	22 cm (8.7 in.)/ 22.9 cm (9.0 in) with zoom lens**

Weight: 1.06 kg (2.34 lb)

**The 10-40 mm zoom lens is available to special order; contact Campbell Scientific for more information.



The CC5MPX has a 4 to 12 mm lens**, which provides an approximate 27° horizontal field of view when fully zoomed in and an 80° horizontal field of view when fully zoomed out.