

Overview

The CM-PTZ is an innovative addition to the successful product line of CM Series Integrated Positioning Systems. The CM-PTZ not only combines a receiver, pan/tilt, and enclosure in a single, easy-to-install system, they also include an Integrated Optics Package (IOP). The Integrated Optics Package contains an auto-focus camera and lens module with programmable features. For a wide range of applications, the CM Series feature a choice of three different IOP cameras: a color camera (470 TVL) with a 160X zoom lens (16X optical, 10X electronic), a high-resolution camera with low lux color technology and 220X zoom lens (22X optical, 10X electronic), and a high-resolution color/black-white camera with an infrared cut filter and 230X zoom lens (23X optical, 10X electronic).

A powder-coated, aluminum construction makes the CM-PTZ ideal for either indoor or outdoor applications. The system has an absolute operating temperature range of -50° to 140°F (-45° to 60°C). Within two hours after power-up, the entire unit can de-ice and be operational from a temperature of -13°F (-25°C).

The CM-PTZ Series includes an optional window wiper. The wiper is completely integrated into the enclosure and does not interfere with the viewing range of the system. The wiper can be programmed to delay between wipes and to automatically shut off after a specified period. The wiper design also allows for easy replacement of the wiper blade. A built-in heater, window defroster/defogger, sun shroud, and insulation blanket are standard features on the CM-PTZ units. All units also include an open collector auxiliary output that functions for two seconds before deactivating.

The CM-PTZ Series variable pan and tilt speeds range from 0.1 to 40 degrees per second in manual pan mode and 0.1 to 20 degrees per second in manual tilt. Pan preset and turbo speeds are 100 degrees per second in wind speeds of 50 mph and 50 degrees per second in the 90-mph wind-speed profile. Tilt preset speed is 30 degrees per second. The CM-PTZ is capable of 360 degrees of continuous pan rotation. The tilt range allows for horizontal viewing of +33 to -83 degrees. There are 64 programmable preset positions with a preset accuracy of one-quarter degree.

The systems are available with an input voltage of 24 VAC or with a selectable power source of 120/230 VAC. The CM-PTZ also has a power-up recovery mode that allows the user to specify what operation the system will resume whenever the power is cycled.



Features

- Receiver, Pan/Tilt, and Enclosure with an Integrated Optics Package
- Auto Focus with Manual Override
- Programmable Camera Settings
- On-Screen Compass, Tilt, and Zoom Display
- Auto Iris with Manual Override
- Integral Multi-protocol Receiver/Driver
- Variable Speed Pan: 0.1° to 100°/second with Proportional Pan
- 360° Continuous Pan Rotation
- Zone Blanking – Allows up to eight zones (programmable in size) to be set to output blank video
- Operational in 90 mph Wind Conditions; Can Withstand Wind Velocity Up to 130 mph
- Pan Preset Speed of 100° Per Second in 50 mph Winds and 50° Per Second in 90 mph Winds
- Tilt Range of +33° to -83° from Horizontal
- Preset Positioning, Patterns, Multiple Scan Modes
- Designed for Minimal Maintenance, No Gears to Adjust

Ordering Information

Model	Description
CM-PTZ-16	Integrated Pan/Tilt/Zoom Camera with blower, heater, 160x zoom lens (16x optical, 10x electronic)
CM-PTZ-22	Integrated Pan/Tilt/Zoom Camera with blower, heater, 220x zoom lens (22x optical, 10x electronic)
CM-PTZ-23IR	Integrated Pan/Tilt/Zoom IR Camera with blower, heater, 160x zoom lens (23x optical, 10x electronic)

Specifications

ELECTRICAL

Input Voltage	24, 120, or 230 VAC, 50/60 Hz; switch selectable for 120/230 VAC inputs	
Input Voltage Range	±10%	
Power Consumption	Maximum 70 VA per system	
Heater and Defroster	Thermostatically controlled	
Electrical Connections	Two power source connections made at mount location with wire splices and one ground wire splice; one BNC receptacle and four wire splices at mount location for RS-422 D and P protocols; two wire splices for open collector auxiliary output	
Aux 2	Open collector output with 2-second activation; connected relay must require no more than 32 VDC and 40 mA to energize relay coil; wire length between Esprit and relay must be less than 100 feet (30 m)	
Video Coaxial Cable	Cable Type*	Maximum Distance
Max. Wiring Distances	RG59/U	750 feet (229 m)
	RG6/U	1,000 feet (305 m)
	RG11/U	1,500 feet (457 m)

MECHANICAL

Pan Movement	360° Continuous pan rotation
Vertical Tilt	Unobstructed +33° to -83°
Variable Pan/Tilt Speed	
Pan	0.1° to 40°/sec variable-speed operation, 100°/sec Turbo
Tilt	0.1° to 20°/sec variable-speed operation
Preset Speeds	
Pan	100°/sec
Tilt	30°/sec
Camera Mounting	Integrated camera sled assembly
Latches	One link-lock, No. 3 stainless-steel latch; can be secured with padlock (not supplied)

CAMERA / OPTICS

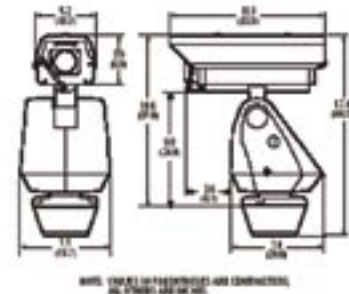
Signal Format	NTSC/PAL	
Image Sensor	1/4" CCD (CM-PTZ-231R) 1/4" EXview HAD CCD (CM-PTZ-22) 1/4" interline transfer CCD	
NTSC	724 (H) x 494 (V)	
PAL	724 (H) x 582 (V)	
Horizontal Resolution	> 470 TV Lines (NTSC) > 460 TV Lines (PAL)	
Lens	f/1.6 (CM-PTZ-231R / CM-PTZ-22) f/1.4 (CM-PTZ-16)	
Zoom	CM-PTZ-231R	23X optical, 10X electronic
	CM-PTZ-22	22X optical, 10X electronic
	CM-PTZ-16	16X optical, 10X electronic
Zoom Speed	CM-PTZ-231R	4.2 seconds
	CM-PTZ-22	3.9 seconds
	CM-PTZ-16	3.6 seconds
Max Sensitivity	CM-PTZ-231R	0.08 lux @ 1/2 sec shutter (color) 0.013 lux @ 1/60 sec shutter (B&W)
	CM-PTZ-22	0.02 lux @ 1/2 sec shutter
	CM-PTZ-16	0.05 lux @ 1/2 sec shutter
Video Output	1 Vp-p, 75 ohms	
Video SNR	> 50 dB	

GENERAL

Construction	Die-cast, extruded and sheet aluminum; stainless steel hardware		
Viewing Window	Finish Gray polyester powder coat 0.23" (5.84 mm) thick, optically clear impact/scratch-resistant coated Lexan®		
Operating Temperature	-50° to 122°F (-45° to 50°C) for sustained system operation or 140°F (60°C) absolute maximum. Within two hours after power-up, the entire unit can de-ice and be operational from a temperature of -13°F (-25°C). Will remain operational in 90 mph wind conditions; withstands 130 mph		
Operating Environment			
Weight	With Pedestal Adapter	With Wall Mount	
Unit	Standard w/IOP	20 lb (9.0 kg)	22 lb (9.9 kg)
	With Wiper and IOP	21 lb (9.5 kg)	23 lb (10.4 kg)
Shipping	Standard w/IOP	25 lb (11.3 kg)	28 lb (12.6 kg)
	With Wiper and IOP	26 lb (11.7 kg)	29 lb (13.1 kg)

CERTIFICATIONS/RATINGS

- CE, Class B (all models)
- UL Listed (NTSC models)
- UL Listed to Canadian safety standards (NTSC models)
- FCC, Class B (NTSC models)
- Meets NEMA Type 4X and IP66 standards



CAMERA / OPTICS (cont'd)

Sync System	Internal / AC line lock, phase adjustable via remote control, V-Sync
White Balance	Automatic with manual override
Shutter Speed	Automatic / Manual
NTSC	1/2 ~ 1/30,000
PAL	1/1.5 ~ 1/30,000
Iris Control	Automatic Iris Control w/ manual override
Gain Control	Automatic / OFF