

TM-5LC SUPER MINI CYLINDRICAL CCD CAMERA



TM-5LC with Tamron lens



TM-5LC with C/CS mount

General Description

The PULNiX TM-5LC is an ultra miniature monochrome shutter camera with automatic electronic exposure control. Designed for self-contained miniature camera applications, the TM-5LC provides a low cost and robust solution for replacing remote head cameras. The TM-5LC has a built-in automatic shutter (Electronic Iris or Electronic Exposure control) to provide a wide dynamic range. The optics are designed for OEM applications and various types of lens mount are available as an option. Therefore, the TM-5LC is ideal for covert operation, robot vision, helmet cameras, pipe inspection, underwater cameras, microscopy, military applications, etc.

Electronic Shutter

The TM-5LC has a substrate drain type shutter mechanism which provides a superb picture at various speeds without smearing. With automatic shutter control, it varies from 1/60 sec. to 1/10,000 sec. to operate from less than 0.5 lux to bright day light conditions.

Optics

Various types of lens mounts are available as an option. The TM-5LC cylindrical enclosure has an M14 x 0.5 thread which is compatible with the Tamron aspherical lenses. Additionally, a C/CS-mount lens can be used with the optical adapters. The optics are designed for OEM applications.

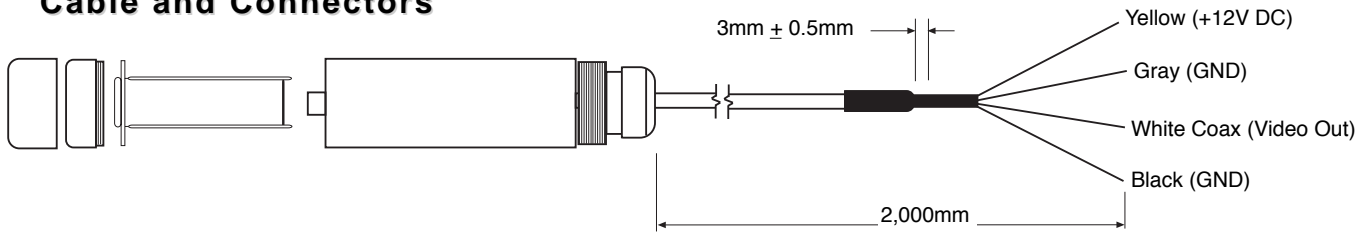
New Product Summary

- Ultra Miniature Cylindrical CCD Camera
- Low light Sensitivity (0.5 lux)
- Automatic Electronic Shutter (1/60 to 1/10,000 sec)
- 1/4" CCD
- 20mm Dia and 47mm Long, Robust Design
- Optical Design for OEM Applications
- AGC on/off, Gamma 1 or 0.45
- Replaces Remote Head Cameras

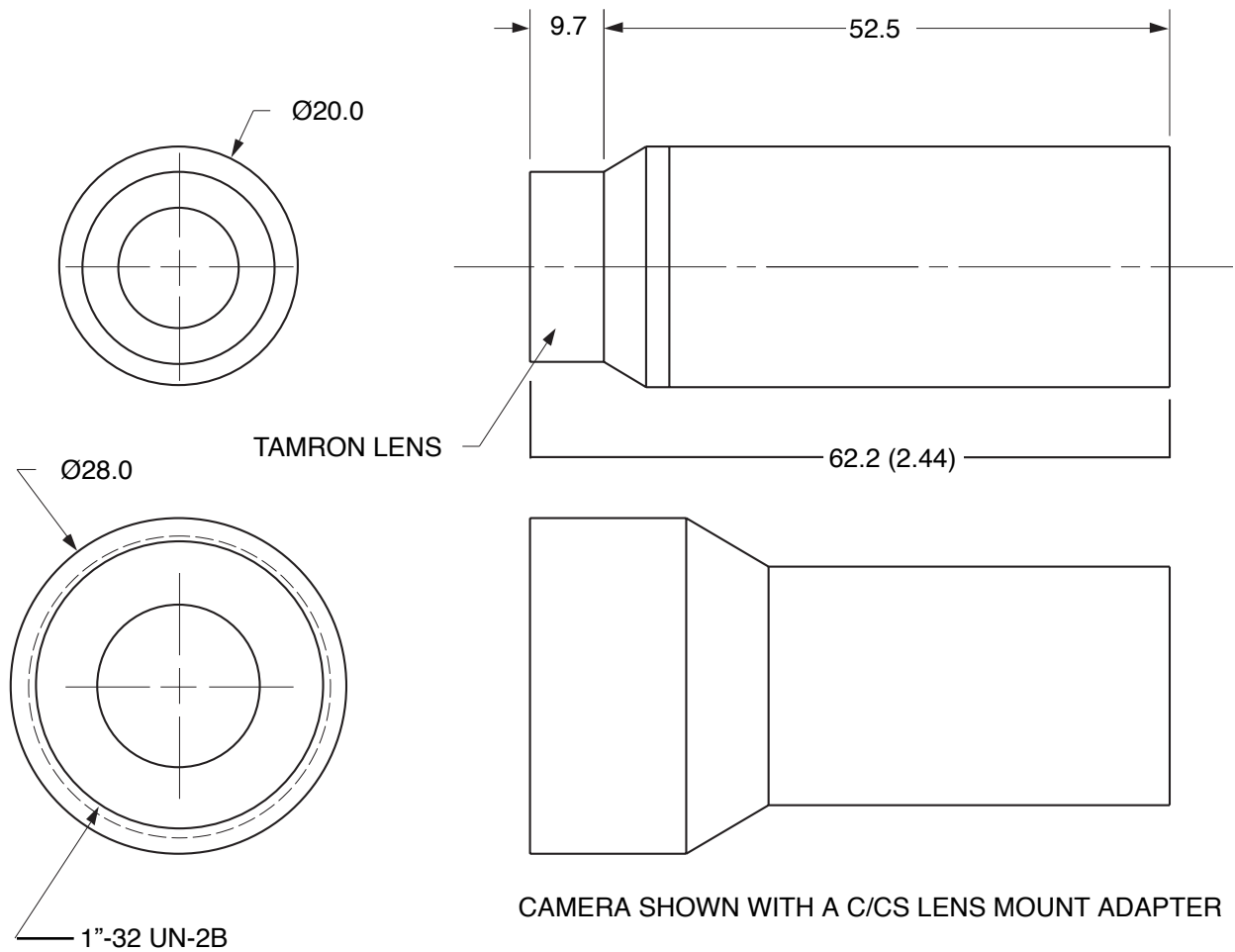
Specifications

Imager	1/4" interline transfer CCD
Pixel	510 (H) x 492 (V)
Cell size	7.15 μm x 5.55 μm
Scanning	525 lines 60 Hz, 2:1 interlace
Sync	Internal HD=15.734kHz, VD=59.94 Hz
TV resolution	400 (H) x 350 (V)
S/N ratio	50dB min.
Min. illumination	0.5 lux f=1.4 without IR cut filter
Video output	Analog: 1.0 Vp-p composite video, 75 Ω
AGC	ON/OFF (ON std.)
Gamma	0.45 or 1.0 (1.0 std.)
Lens mount	M14X0.5 TAMRON, C/CS MOUNT
Power req.	12V DC, 120 mA
Operating temp.	-10°C to 50°C
Vibration & shock	Vibration: 7 Grms @ 10-2000 Hz, Shock: 70G
Size (D x L)	20mm Dia x 52.5mm 0.78" Dia x 2.0"
Weight	20.5g (without cable or lens)
Power cable	Flying Leads
Power supply	K25-12V or PD-12
Auto iris connector	None
Functional options	TBD
Accessories	C/CS-mount adapter (32-3663)

Cable and Connectors



Physical Dimensions



TM-5LC

71-0038 Rev. A

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ISO 9001
 Cert. # A3942 RVC



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