



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.

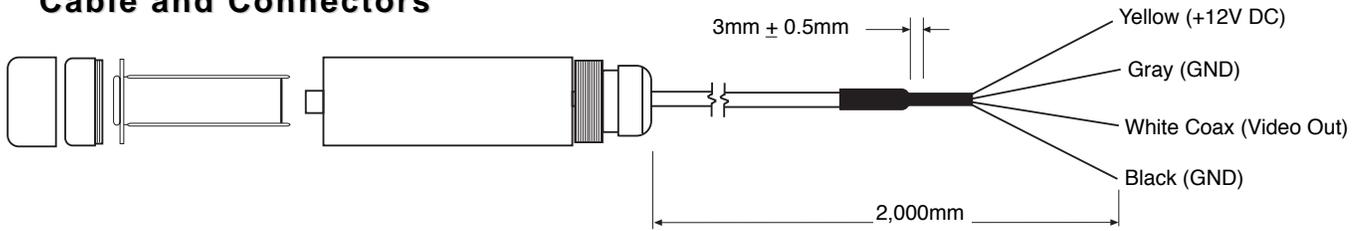
New Product Summary

- 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

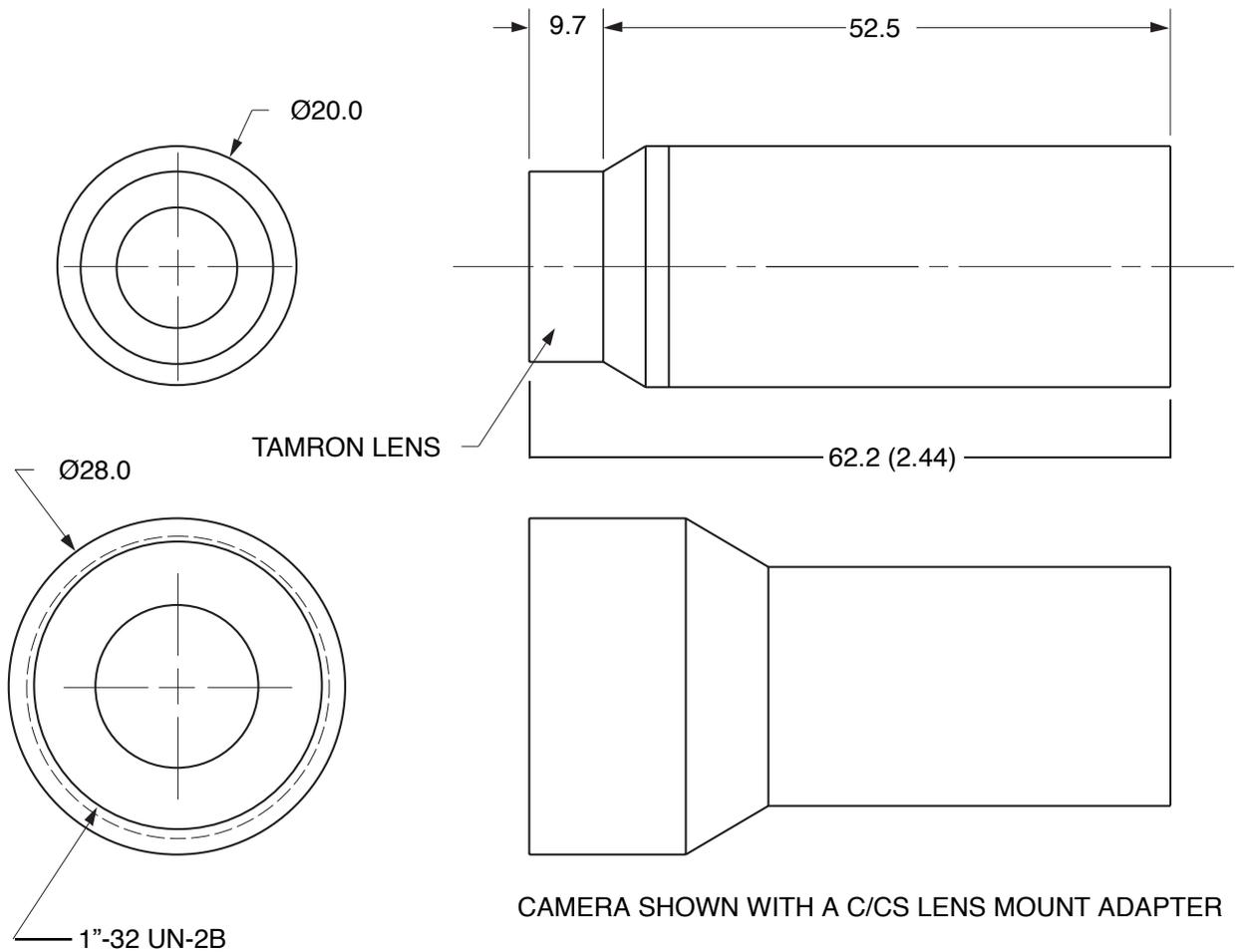
Specifications

| | |
|------------------------------|---|
| 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

ISO 9001
Cert. # A3942 RVC

MEMBER
CE

PULNiX

Industrial Products Division

PULNiX America Inc. Tel: 408-747-0300
1330 Orleans Drive Tel: 800-445-5444
Sunnyvale, CA 94089 Fax: 408-747-0660
Email: imaging@pulnix.com
www.pulnix.com