

ILLUMINATION

Imagelite™ Model 21DC Series Fiber Optic DC Illuminators

FEATURES:

- Current regulated DC light source
- Universal input voltage, 90-254 VAC
- LED indicators for power and lamp life
- DB-9 connector for remote analog operation
- Load-dependent variable fan for quiet operation
- Rugged design with thermal switch and safety cutoff
- Integrated mounting capabilities



CONFIGURATIONS:

- DCU - Standard DC light output only
- DCS - Optical loop feedback for constant power
- DCP - RS232 PC interface
- DCL - Optical loop feedback and RS232

ACCESSORIES:

- Flexible positioning handle
- IR and color filters
- Iris dimming control
- Commander™, light control software
- 2Hz electro-mechanical shutter

StockerYale's family of Model 21DC Fiber Optic Illuminators, have been designed specifically as a cost effective, high-quality DC regulated light source for use in demanding machine vision applications where stability and control of light output are a requirement. These 150W halogen illuminators provide stable, cool illumination to any application when coupled with either standard or custom fiber optic components.

The Model 21DC provides current regulated, DC light output which is free from power fluctuations that can, often times, affect an illumination system's performance. All Model 21DCs offer universal input voltage to accept 90-254VAC, 0-100% intensity control and LED indicators for both power and lamp life. Lamp intensity may be controlled manually with the front panel potentiometer or remotely through a rear panel DB-9 connector using a 0-5V analog supply.

StockerYale now offers an optical loop feedback option that maintains light stability to within 0.2% when constant power is required. This feature may be configured with or without the RS232 PC interface, which is accessed through an additional DB-9 connector located on the rear panel.

All configurations are provided in the same compact, rugged housing made of a powder-coated, aluminum extrusion for maximum durability. Two #1/4-20 T-slots run the length of the housing for integrated mounting capabilities. The innovative $\varnothing 1$ " (25.4mm) V-Port design with three-point contact allows for a "non-slip" coupling to almost any fiber optic component. Goosenecks, specifically, lock into place where they would otherwise rotate within the fiber optic port.

FEATURES

Standard Features

	Model 21 Configurations			
	DCU	DCS	DCP	DCL
Optical Loop Feedback	-	✓	-	✓
RS-232 PC Interface	-	-	✓	✓
Light Control Software	-	-	✓	✓
Universal Input Voltage	✓	✓	✓	✓
0-5V Analog Control	✓	✓	✓	✓
Thermal & Safety Shut-off	✓	✓	✓	✓
Power & Lamp Life LED Indicators	✓	✓	✓	✓

TECHNICAL SPECIFICATIONS

Input Power	215 Watts, max
Input Voltage	90 - 254 VAC
Converter Frequency	47 - 63 Hz
Fuse Rating	3.15A, 5 x 20 mm AT
Operating Temperature	32 - 104°F (0 - 40°C)
Humidity Range	0 - 80%, non-condensing
Lamp Type	EKE, 150W (3250°K) EKE-HC, 150W (4200°K) EJV, 150W (3400°K)
Agency Approvals	CE, UL (pending)
Weight	4.5 lbs (2.04 kg)

* Some configurations are pending agency approvals.

Model 21DCU

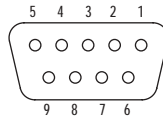
The Model 21DCU is the base configuration for this new broadened family of products. Complete with universal input voltage and remote analog DC voltage control, this unit provides reliable, current-regulated light output for a variety of illumination applications. This unit is supplied in a compact, rugged, extruded aluminum housing designed with ¼-20 T-slots for integrated mounting. Optional lamp modules, adapters and accessories may be added in order to customize this unit to meet application specific requirements.

- Light output stability $\pm 0.1\%$
- Remote 0-5VDC analog control
- Constant Current-regulated lamp output
- Universal input voltage (90-254VAC; 47-63Hz)
- $\varnothing 1.0"$ (25.4mm) or $\varnothing 0.625"$ (15.8mm) ID fiber ports
- Optional iris control lamp module
- Optional IR and color filter lamp module
- Power factor corrected for CE
- CE marked and UL listed

ANALOG CONTROL CONNECTOR (DB-9)

(ILLUMINATOR REAR PANEL INPUTS)

- 1 = Internal 10mA, 5VDC output
- 2 = Secondary Common (same as 7)
- 3 = Lamp Intensity Control (0-5VDC)
- 4 = Tie to common to enable remote operation
- 5 = No Connection
- 6 = External shut off/interlock (an external 5VDC/10mA isolated signal will shut off the lamp.)
- 7 = Secondary Common (same as 2)
- 8 = Chassis Ground
- 9 = Lamp Error Signal (power on and/or lamp error)

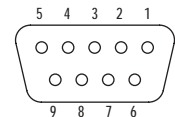


For use on all Model 21DC configurations

DIGITAL RS-232 CONNECTOR (DB-9)

(ILLUMINATOR REAR PANEL INPUTS)

- 1 = No connection
- 2 = Data received from PC (RxD)
- 3 = Data transmitted to PC (TxD)
- 4 = Not available (DTR)
- 5 = Ground
- 6 = Not available (DSR)
- 7 = Not available (RTS)
- 8 = Not available (DTR)
- 9 = No connection



For use with Model 21DCP or DCL

Model 21DCS

The Model 21DCS incorporates all of the standard features of the Model 21DCU but also offers an optical loop feedback system for constant power output over lamp life. Constant power is maintained in either remote analog mode or front panel control by the use of a high-accuracy photodiode circuit that feeds back information to the power supply. This is a great option for applications where constant power and constant color temperature are required over time.

- Optical loop feedback
- Constant power-regulated lamp output
- Light output stability $\pm 0.1\%$
- Remote 0-5VDC analog control
- Includes standard features of Model 21DCU
- CE marked and UL listed (pending)

Model 21DCP

The Model 21DCP configuration incorporates all of the standard features of the Model 21DCU but may also be used when remote PC interface is required using RS-232. An additional DB-9 connector on the rear panel is provided for RS-232 access. Multiple units may be controlled using a standard USB multi-adapter. Illumination system programming may be written and implemented by the customer or it may be supplied through the optional Commander™ operating software that offers a user-friendly interface.

- RS-232 remote PC interface
- Constant current-regulated lamp output
- Light output stability $\pm 0.1\%$
- Remote 0-5VDC analog control
- Optional Commander™ operating software
- Includes standard features of Model 21DCU
- CE marked and UL listed (pending)

*Model 21 DCL configured with a laptop
PC displaying the Commander™
operating software.*



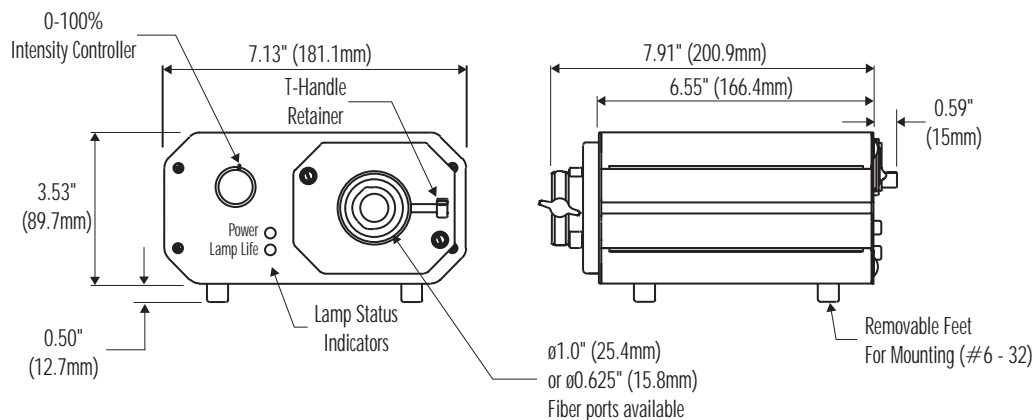
Model 21DCL

The Model 21DCL incorporates all of the features in the Model 21DC family of products, offering superior control of illumination within a given application. This configuration provides the most complete range of functions including both RS-232 digital interface and optical loop feedback. With constant power-regulated output as the default, this system may be changed to constant current-regulated mode using the optional Commander™ operating software.

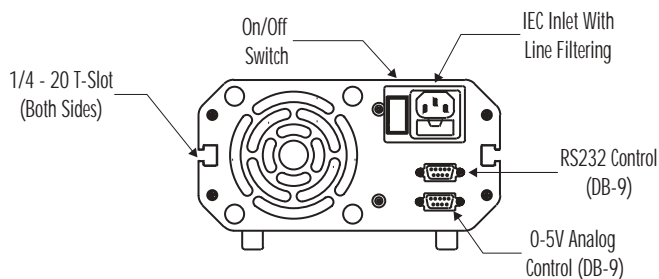
- Optical loop feedback
- RS-232 PC interface
- Constant power-regulated lamp output
- Light output stability $\pm 0.1\%$
- Remote 0-5VDC analog control
- Optional Commander™ operating software
- Includes standard features of Model 21DCU
- CE marked and UL listed (pending)

DIMENSIONS

Front



Rear



* Consult factory for available adapters.

* Unit includes 8' (2.44m) IEC line cord, various plug types available.

ACCESSORIES

- RS-232 serial cable, 6ft (for use with DCP or DCL)
- Commander™ control software (for use with DCP or DCL)
- Iris dimming control lamp module
- IR and color filter lamp module
- ø1" (25.4mm) or ø0.625" (15.8mm) ID lamp modules
- 2Hz electro-mechanical shutter attachment
- Side mount or swivel position handle



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