

# ES40 LIGHT

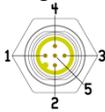
## ES Series with Internal Driver

### ELECTRICAL:

Input Voltage: 12 to 26.4VDC  
 Input Current: 80mA typical (320mA max for burst) @24VDC  
 120mA typical (620mA max for burst) @12VDC  
*Note: Power supply must be capable of 320mA per light for burst feature to work correctly.*  
 Strobe Input Impedance: 10KΩ – PNP typical, 9.1KΩ – NPN typical  
 Strobe Timing: <20 microseconds from strobe to LED on  
 0-10V Input Impedance: 15KΩ typical  
 0-10V Input Control: 0V = 100%, 10V = 0% LED current. (Can be left disconnected for 100% LED current)  
 Variable Intensity: Adjustable via trim potentiometer from 0% (CCW) to 100% (CW).  
 Over-temperature LED: 65 ± 5°C strobe disable / "Error" LED on; 5°C hyst. for strobe enable / "Error" LED off

**Wiring:**

Pin #	Wire Color	Function
1	Brown	+12 to +26.4VDC
2	White	NPN STROBE INPUT: GND for "ON", Open or >Vin-1V for "OFF"
3	Blue	0VDC (DC GND)
4	Black	PNP STROBE INPUT: < 1 VDC for "OFF", >3 ≤30 VDC for "ON"
5	Grey or Green/Yellow	0-10VDC analog intensity control – 0V = 100%, 10V = 0%



### ENVIRONMENTAL:

Operating Temperature: 0 to 40°C  
 Relative Humidity: 5 to 85% non-condensing

### MECHANICAL:

Lighted Area: 40mm  
 Connector: M12 - 5 pin  
 Weight: 3.88 oz (110g)

### ILLUMINATION:

Light Source: LED – available in 4 Colors and IR  
 Quantity HB LED's: 1  
 LED Lens: 16° FWHM Standard  
 23° FWHM Optional  
 39° FWHM Optional  
 44x15° FWHM Line Optional  
 LED Life: up to 50,000 hours\*.  
 \*Contact us for LED life information



### FEATURES:

- Built-in Driver
- Aluminum Single Interface Housing
- Auto Burst – LED high current for 500µs ±10% (burst pulse width repeatability ±1% same light), then drops to standard current
- Auto Burst Disable Switch
- 0-10VDC Intensity Control
- Potentiometer Intensity Control
- PWM Dimming Capable (with Auto Burst disabled)
- Internal Thermal Protection
- Robot Friendly Weight – 3.88 oz (110g)

### PART NUMBER DESIGNATION: ES40-XXX

XXX = Light Color - 470, 530, 630, 850, WHI

Color	Dash #	λ Dominant Typical	λ Dominant Range	Spectral Half-width Δλ½	λ Peak Typical	Units	Typical mW per LED
Blue	-470	465	455 - 475	21	453	nm	420
Green	-530	530	525 - 535	39	518	nm	175
Red	-630	625	618 - 630	17	632	nm	200
Infrared	-850	850	n/a	30	860	nm	190
Pure White	-WHI	Color Temp 5700 - 7000K CRI 70 typ					360

Other colors available on request

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