

## Electronic Steerable Beam (ESB) Traffic Signal Heads

### EASILY ADJUST LIGHT BEAMS WITHOUT GETTING UP IN A BUCKET TRUCK

The Electronically Steerable Beam (ESB) traffic signal can replace standard optically programmable signal heads and features an electronically programmable signal head with an array of LEDs as the illumination source. LEDs can be programmed to electronically steer the light beam as well as raise and lower light intensity for turning pocket signals using a Wi-Fi enabled PDA. Both vertical and horizontal viewing angles can be programmed for typical turn pockets, plus restrict viewing for far side indications. The Intelight ESB signal saves hours of staff time and dramatically reduces exposure to traffic dangers. Power consumption averages 8 watts compared to the 150 watts required by legacy incandescent programmable vehicle heads.

### Benefits

- Provide a visibility zone of red, yellow, and green without requiring louvers or other external blocking devices
- Signal illumination is remotely programmable to desired area of visibility
- Signals are complete head replacements and part of the Intelight Complete Traffic Framework
- Reduces energy and maintenance costs by 95%

### Features

- 100% intelligent LED traffic signal
- Thermally enhanced modular housing - improves operational life
- Ambient Light Adjustment - signal light intensity varies automatically with changes in ambient light. No killer-greens.
- Upgradeable design - cost efficient future software and hardware features
- 7-year warranty - longest in the industry



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### Optional Platform Features

**Embedded 4-way video cameras** - enables real time and stored color and black/white images and part of the Intelight ITS Platform

**Battery Backup Capability** - operates directly from a 120V AC or 48V DC power source

**Built-in communications** - power line modem with communications over existing signal wires

**Sensors** - providing improved transportation mobility, enhanced public safety and Homeland Security features

### COMPLIANCE AND APPROVALS

Intelight meets or exceeds traditional traffic signal specifications. Independent laboratory test results of Intelight's products are available on request.

ESB Traffic Signal Head Configuration	
Size	12 inches (300mm)
LED Types	Red/Amber/Green: AllInGaP
LEDs per Arrow	Mask defined arrow
Lens Materials	Polymeric
Lens Description	Clear lenses standard, tinted available
Lens Configuration	Fresnel and refractive Lenses
Reflector Materials	Polycarbonate
Reflector Description	Custom parabolic
Reflector Configuration	Integrated with housing
Housing Materials	Reinforced, UV resistant polycarbonate
Gaskets	Silicone foam
Mounting	ESB horizontal and vertical stacks
Arrows horizontal and vertical placements:	
<ul style="list-style-type: none"> <li>• Mast arms    • Stabilized Span</li> <li>• Top of post    • Side of pole</li> </ul>	

ESB Operating Specifications**	
Temperature Range	- 40° C to + 74° C
Voltage Range AC	80 VAC to 135 VAC / 60Hz ± 3Hz
IP Rating Unenclosed / Enclosed	IP 34 / IP 65
Power Factor	> 0.90 %
Voltage Typical AC	120 VAC / 60Hz
Voltage Typical DC	48 VDC
Voltage Protection	6000 V
Voltage Conversion	AC or DC operations with the change of a single wire
Backup	Photovoltaic and standard battery backup available
Total Harmonic Distortion (THD)	< 20 %
Offstate Impedance	< 1K ohm

\*\* Specs & typical values tested under laboratory conditions, Ta = 25°C

*Call TAPCO for additional details and pricing information.*



Order by Phone 1-262-814-7000 Toll-free 1-800-236-0112  
or Order by Fax 1-262-814-7017 Toll-free 1-800-444-0331

