

# Triple Linear LED Controller E522.80-83 / 90-93

## Benefits

- Unique thermal management per channel: Power Zeroing
- Advanced diagnostic functionalities
- High resolution PWM dimming
- Diagnostic RUN interface to link multiple ICs

## Key Features

- Operating input voltage range 5V to 25V, max 40V
- Integrated Linear current drivers:
- Three times 150mA per channel or 450mA in parallel mode (E522.80-83)
- Three times 55mA per channel or 165mA in parallel mode (E522.90-93)
- Two failure modes configurable:
  - Single Lamp Mode (SLM): Disables all channels in case of failure and sends error signal
  - Failure Feedback Mode (FFM): Operating channels in case of errors, with enhanced error signalization

## E522.84-87

Space saving version in SOIC8 Package with comparable functionality available, that offers three times 60mA per channel or 180mA in parallel mode.  
Minimum of external components required.

Simplify your System:  
One IC, manifold applications, always fantastic performance.



*The Elmos LED Controllers are one of the most flexible solutions with the best diagnostics on the market. In addition the ICs enable an effective heat distribution without hot spots.*

## Overview E522.8x family

E522.80/81/82/83 family devices provide independent triple linear current controller for LED driving (standalone driver or LED cluster). Diagnostic features are provided to meet automotive requirements, together with a communication interface "RUN" to link ICs to generate more than three channels, supporting individual current configuration and independent digital PWM dimming per channel (e.g. for RGB).

### Keep your Light cool by "power zeroing"!

You gain an excellent thermal load balancing between internal and external power dissipation by using external ballast resistors in combination with two in parallel operating linear current sources.

### Power your Light up!

You can use the 3 channels in parallel providing up to 165mA continuously with the low current and up to 450mA continuously with the high current version.

### Control your Light!

The outstanding features are **extensive diagnostic functions** that ensure a reliable operation of the power stage with open/short detection, monitoring the junction temperature, voltage control and internal or optional external temperature compensation.

### Design your Light!

Shared and specific **PWM dimming** is possible to build up powerful LED applications with a dimming frequency up to 1.000Hz.

elmos

Always keep cool at 450mA.  
Unique Thermal Management.

GET YOUR ELMOS LINEAR LED CONTROLLER

## Elmos Support

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- **AMBIENT LIGHT** E521.31 | E521.36
- **READING LAMP** E522.80-87 | E522.90-93 | E522.10
- **FLOOR LIGHT** E522.80-87 | E522.90-93
- **ENTRANCE LIGHT** E522.80-87 | E522.90-93

- **REAR LAMP** E522.80-87 | E522.90-93
- **BRAKE LAMP** E522.80-87 | E522.90-93
- **BACK UP LIGHT** E522.80-87 | E522.90-93
- **REAR FOG LIGHT** E522.80-87 | E522.90-93 | E522.01-10
- **DIRECTION INDICATOR LIGHT** E522.80-87 | E522.90-93

- **TRUNK LIGHT** E522.80-87 | E522.10 | E522.90-93
- **TRUNK OPENER** Halios® E909.06
- **LICENSE PLATE LAMP** E522.80-87 | E522.90-93

- **THIRD BRAKE LAMP** E522.80-87 | E522.90-93

- **FOG LIGHT** E522.80-87 | E522.90-93 | E522.01-10

- **LOW BEAM LIGHT** E522.31-34 | E522.10
- **HIGH BEAM LIGHT** E522.31-34 | E522.10
- **DAYTIME RUNNING LIGHT** E522.80-87 | E522.90-93 | E522.01-10
- **CURVE LIGHT** E522.80-87 | E522.90-93 | E522.01-10
- **SIDE LIGHT** E522.80-87 | E522.90-93
- **DIRECTION INDICATOR LIGHT** E522.80-87 | E522.90-93

■ Linear LED Controller  
■ Other LED Applications

