

E141.01 VAN-Bus transceiver  
 E910.05 K-Bus transceiver  
 ▶ E910.15 LIN-/K-Bus transceiver  
 E910.18 | E910.45 LIN transceiver + VREG  
 E910.48 LIN transceiver + VREG + WD  
 E910.54 FlexRay™ transceiver  
 E910.55 FlexRay™ transceiver + wake-up  
 E910.56 FlexRay™ star coupler

## ▶ LIN- / K-Bus transceiver

## E910.15

### FEATURES

- ▶ K-Bus Interface applicable as diagnostic interface to ISO 9141 and OBD II
- ▶ Change between LIN-mode and K-mode with external pin
- ▶ Data rate up to 9.600Baud for K-mode
- ▶ Data rate up to 20kBaud for LIN-mode
- ▶ Very low standby current (15µA typical)
- ▶ Output driver with slewrate control (EMI)
- ▶ Supply voltage range VS 6V to 18V
- ▶ Logic supply voltage range VDD 4.5V to 5.5V
- ▶ Internal monitoring features
- ▶ Bus input voltage excursion from -24V to +30V (independent of VS)
- ▶ Over temperature protection
- ▶ Load-dump and jump-start protected
- ▶ -40°C to +125°C operating temperature
- ▶ SO8n and SO14n package

### DESCRIPTION

The IC is designed to control bidirectional serial data transmission on bus lines. It supports both LIN- and K-Bus which are selected by the MODE pin. This feature allows an easy migration from K- to LIN-bus without changing the transceiver.

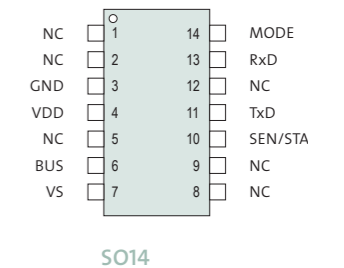
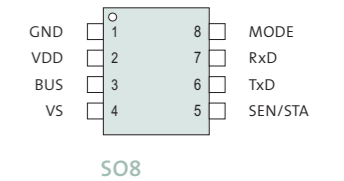
The high voltage range and the low standby current as well as the wide temperature range make the IC interesting for a wide field of applications.

An implemented over temperature protection disables the bus driver to prevent damages. Bus voltage excursions from -24V to +30V ensures easy board protection.

### PINNING

Pin SO14	Pin SO8	Name	Description
3	1	GND	Ground
4	2	VDD	+5V supply
6	3	BUS	Bus driver output, active low and receiver input
7	4	VS	+12V supply voltage
10	5	SEN/STA	I/O pin send status
11	6	TxD	Serial data from µC to IC
13	7	RxD	Serial data from IC to µC
14	8	MODE	Mode = "1" = not connected: K-Bus-Mode; Mode = "0" : LIN-Bus-Mode
1, 2, 5, 8, 9, 12		NC	not connected

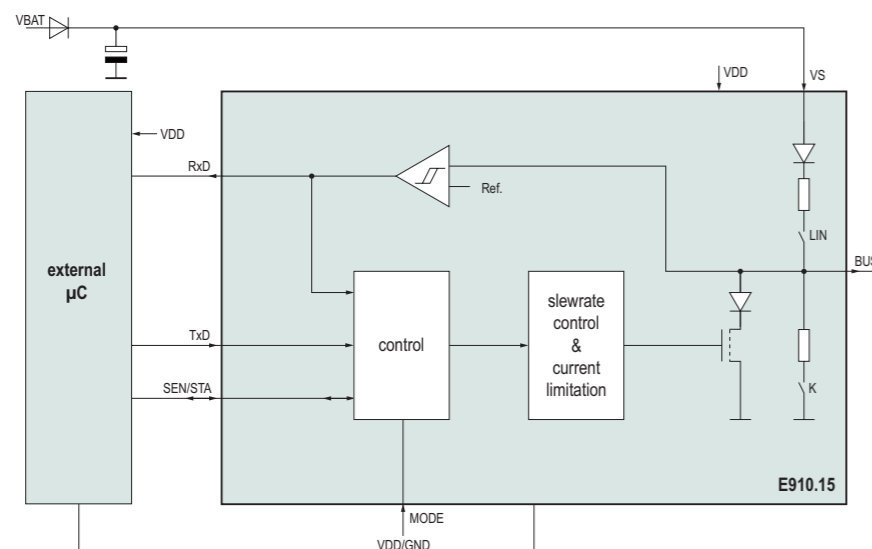
### PACKAGE



### APPLICATION

- ▶ Automotive low speed bus systems
- ▶ Body electronics
- ▶ Comfort electronics

### BLOCK DIAGRAM



**lin**  
 LOCAL INTERCONNECT NETWORK  
 ELMOS is member of the  
 LIN consortium

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