

LINC 2.

Powerful electronic control unit.

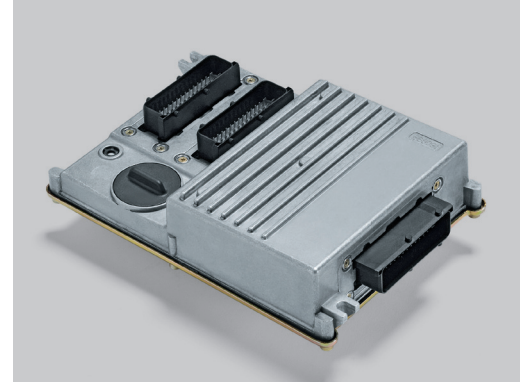
Linde Hydraulics

LINC 2 is a new powerful electronic control generation for electric and electro-hydraulic mobile drives. It can be used in electric drives as well as in open and closed loop hydraulic applications, in combinations of both and in single and dual circuit systems. Therefore LINC 2 can for instance control the complete excavator drive train with its traction and working hydraulic system.

Heart of the control unit are a 16 bit functional controller, a 16 bit safety controller and a 16 bit controller for 32 PWM outputs. Due to the redundant architecture of the control unit it can perform safety functions up to performance level d of DIN EN ISO 13849-1.

Besides the electrohydraulic drive train components, like valves, pumps and motors, all peripheral components like pedals and joysticks can easily be embedded in the complete control system.

The control unit is provided preconfigured with all functions, machine characteristics and machine specific parameters. Some parameters can be adapted with the diagnostic interface LinDiag®. The control unit can be used for different engine performances as well as for differently equipped machines. It can be easily adapted for specific country guidelines. All the customer has do to is to mount and to startup the control unit.



Electrical conditions	
Voltage supply V_s	8-32 V DC, reverse polarity proof
Max. voltage supply	39 V, 3 min
Current consumption	max. 300 mA (without load)
Short circuit proofness	All pins against V_s and GND
Housing	
Protection class	IP67 according to EN 60529 (plugged-in connector)
Geometry	ca. 230 x 157 x 58 mm
Connector	3 x 42 pol. AMP 1-967281-1
Weight	ca. 1300 g
Input - Output	
Digital in	12 x Pull-up
Digital in	12 x Pull-down
Analog in	20 x 0-5 V
Frequency in	9 x 0-10 kHz
PWM outputs	32 x max. 2.0 A for Linde proportional and digital valve control
Low-Side digital out	8 x (max. 1.0 A)
Sensor supply	2 x 5 V
CAN interface	2 x CAN
Environmental conditions	
Environmental temperature	-20...+60° C
Vibration	10 g, 3 axes, 10 Hz-2 kHz
Shock	30 g, 3 axes
Resistance against	Salty atmosphere, Hydraulic oils, Diesel, UV, Fertilizer
EMC	
Radiated electromagnetic energy (ISO 11452-2)	100 V/m
ESD (DIN EN 61000-4-2)	Air discharge ±15 kV
	Contact discharge ±8 kV
Electromagnetic emission (DIN EN 5502)	150 kHz – 108 MHz Reference limits from DIN EN 13309
Electrical disturbances from conduction & coupling (ISO7637-2)	Impulse 1, 2a, 2b, 3a, 3b (Level 4)
	Impulse 5, Load Dump (ISO 7637-2)

