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Use

ILAS®-E+ is used for electrically controlled raising and lowering of one or more lift-axles with conventional air suspension systems. On EB+ systems, a load-dependent output signal is used to provide electrical actuation of the ILAS®-E+. In the case of standard installations (without EB+), ILAS®-E+ can also be controlled by means of a separate special pressure switch with two adjustable pressure switching points (load dependent).

Method of operation

Electrically operated:

Electrically operated lift-axle control unit for raising and lowering the lift-axle(s).
When the voltage is on: Axle is lifted
When the voltage is off: Axle is lowered
When using an traction assist, it is essential that the statutory provisions with regard to lifting equipment (97/29/EC) are observed.

Position: lift axle lowered 1.
Solenoid not activated. Connection between port air suspension valve (11) and air bellows of lift axle (21) as well as between the lift bellows (22) and exhaust (3). Connection to air reservoir (1) is closed.

Position: lift axle up 2.
Solenoid is activated. Connection between air reservoir (1) and lift bellows (22) as well as between air bellows of lift axle (21) and exhaust (3). Connection to air suspension valve (11) closed.
Fitting guidelines

Mechanical part 3.

They are fastened after installation drawing with an M8 screw and the fixing pin. The pin is used to fix / twist on the console. The installation site should be chosen such that ILAS®-E+ is shielded from stone impacts, is not exposed to splashing or flood waters and is protected from high pressure cleaning. Appropriate safeguards against unauthorised activation should be provided by the vehicle manufacturer. Pneumatic connection can be made according to a installation diagram, for example.

Pneumatic part 8.

Plastic tubing that complies with DIN 74 324 - 8x1 should be used for pneumatic lines for equipment with plug connections. When fitting the pneumatic lines, care should be taken to cut the tubing to the required length square and without leaving burrs by using a suitable tool. Observe manufacturer’s instructions for pneumatic push in / glands. During painting, all open plug-in connections, the connection to the atmosphere and the air exhaust must be protected from the ingress of paint by using appropriate shielding. This shielding must be removed again after painting.

Electrical part 4.

Bayonet connection complying with DIN 72585 A1-2.1-SN/K1. When making the bayonet connection, care should be taken that the gland nut is correctly seated and locks properly into place when turned clockwise, so as to ensure optimum sealing. The cable with the order no. 814 012 ... can be used for Haldex EB+. For connecting to EB+, see installation note 006 300 018. Haldex Brake Products GmbH accepts no liability for any other method of actuation. Solenoid only to be turned in rotating direction max. 90°
5.

Installation Guide

Technical data

Operating pressure \( p_e = 8.5 \text{ bar} \)
Switch pressure \( 4.5 \text{ bar} + 0.5 \text{ bar} \)
Operating temp. \(-40^\circ \text{C} + 80^\circ \text{C} \)
Weight ca. 0.70 kg
Solenoid data, Versions I, II
Voltage 24 V +7.0 / -8.0
Current power 150 mA / 3.5 W
Type of protection for DIN 40050 - IP 6K 9K
Admissible energization time 100 % ED
Solenoid data, Versions III, IV
Voltage 12 V +3.0 / -5.2
Current power 300 mA / 3.5 W

Port description

Versions I, III 1.1, 1.2 supply
Versions II, IV 1.1 supply
Port 11 air suspended axle
Port 21.1, 21.2 lift axle
Port 22.1, 22.2 lift bellow
Port 3 exhaust
Push-In M 12 x 1.5 for 8 x 1

Maintenance

To lower the lift axle, for example, during servicing, the voltage must be interrupted. Alternatively, a shut-off valve with an air exhaust (e.g. 334 077 001) can be installed upstream of Connection 1, which, when operated, likewise switches off the lifting device (so that the axle lowers).

If defects are discovered, whether during examination of the vehicle, when travelling or in the course of commissioning, the device must be replaced. When working with high pressure cleaners the safety regulations of the manufacturer.

Check

› Check functionality and leak tightness.
› Function: When the voltage is on: Axle is lifted
  When the voltage is off: Axle is lowered
› Correct installation position, see installation drawing.

Attention - Danger!

The lift axle rises or lowers automatically when the change-over pressure is reached or when the voltage is switched on or off, respectively. Keep away from the hazardous area.
Design and function

6.

Attention - Danger!
System filled with air before starting.

7.

Solenoid only to be turned in rotating direction max. 90°

Dimensions Version I, III, 352 080 ...

Dimensions Version II, IV, 352 080 ...

Solenoid only to be turned in rotating direction
The pneumatic air suspension system has to be installed after consultation of the axle manufacturer.
Haldex develops and provides reliable and innovative solutions focused on brake and air suspension products to the global commercial vehicle industry. In 2016, the company had net sales of approximately 4.4 billion SEK and employed a workforce of 2,100 people.

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