

INSTALLATION GUIDE

LVDT series LV, LVIT, LVIG, LVISM, LVPH

For further information please see the data sheet at www.waycon.biz/products/inductive-sensors-lvdt/

FIRST STEPS

WayCon Positionsmesstechnik GmbH would like to thank you for the trust you have placed in us and our products. This manual will make you familiar with the installation and operation of our inductive sensors LVDT. Please read this manual carefully before initial operation!

Unpacking and checking:

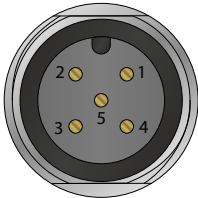
Carefully lift the device out of the box by grabbing the housing. After unpacking the device, check it for any visible damage as a result of rough handling during the shipment. Check the delivery for completeness.

If necessary consult the transportation company, or contact WayCon directly for further assistance.

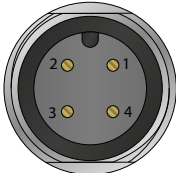
GENERAL NOTES

- Mount the sensor before connecting the external electronics.
- The LV series can optionally be mounted with flange or foot clamps.
- Do not use the sensors near strong magnetic fields.
- Protect the electronics from moisture and humidity.
- Avoid lateral forces on the push rod.
- Do not press in the push rod beyond the specified total mechanical stroke.
- For a measuring range of 100 mm or more, the sensor housing must be additionally stabilised. Otherwise the sensor may bend due to its own weight. In this case, we recommend using three mounting brackets.
- For sensors without WayCon electronics, the minimum of the output signal is at the electrical centre position. From there, half of the entire measuring range is in plus and half in minus (measuring range start and measuring range end).
- The sensor is calibrated to the electronics supplied. The calibration protocol supplied loses its validity as soon as the electronics are readjusted.
- Use the shortest possible cables between the sensor and the electronics.

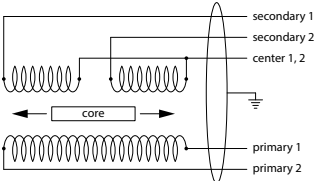
ELECTRICAL CONNECTION LV

Function	Cable output	Connector output	Connection cable K5P...	Connector output M12, male 
Primary 1	BN	Pin 1	BN	
Primary 2	WH	Pin 2	WH	
Secondary 2	BU	Pin 3	BU	
Secondary 1	BK	Pin 4	BK	
Center 1, 2	RD	Pin 5	GY	

ELECTRICAL CONNECTION LVIT

Function	Cable output	Connector output	Connection cable K4P...	Connector output M12, male 
+24 VDC	BN	Pin 1	BN	
Signal	GN	Pin 2	WH	
GND _{Supply}	GY	Pin 3	BU	
GND _{Signal}	WH	Pin 4	BK	
Shield	Shield	Housing	Shield	

ELECTRICAL CONNECTION LVIG

Sensor with internal electronics		Sensor for external electronics		
Function	Cable output	Function	Cable output	
+24 VDC	BN	Primary 1	RD	
GND _{Supply}	GY	Primary 2	BK	
Signal	GN	Secondary 2	OG	
GND _{Signal}	WH	Secondary 1	YE	
n.c.	YE	Center 1, 2	WH	
		Shield	Housing	

ELECTRICAL CONNECTION LVISM

Function	Cable output
Primary 1	BK
Primary 2	BU
Secondary 2	YE
Secondary 1	GN
Center 1, 2	WH
Shield	Housing

ELECTRICAL CONNECTION LVPH

Function	Connector output	Connection cable K5P...
Primary 1	Pin 1	BN
Center 1, 2	Pin 2	WH
Secondary 2	Pin 3	BU
Secondary 1	Pin 4	BK
Primary 2	Pin 5	GY

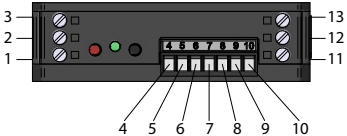
Connector output M12, male

ELECTRICAL CONNECTION ELECTRONICS LVA

Function	Terminal	Function	Terminal
Shield	1	Secondary 1	8
GND _{Supply}	2	Primary 1	9
+V	3	n. c.	10
n. c.	4	GND _{Signal}	11
Primary 2	5	Signal	12
Secondary 2	6	Shield	13
Shield	7		

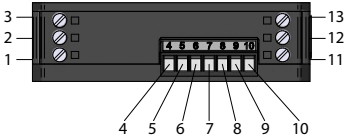
ELECTRICAL CONNECTION ELECTRONICS LVA2

Function	Terminal	Function	Terminal
Shield	1	Primary 1	8
GND _{Supply}	2	Primary 2	9
+V	3	Shield	10
Secondary 1	4	GND _{Signal}	11
Center 1, 2	5	Signal 0...10 V	12
Secondary 2	6	Signal 4...20 mA	13
n. c.	7		



ELECTRICAL CONNECTION ELECTRONICS LVA3


Function	Terminal	Function	Terminal
Shield	1	Secondary 1	8
GND _{Supply}	2	Primary 1	9
+V	3	n. c.	10
Center 1, 2	4	GND _{Signal}	11
Primary 2	5	Signal	12
Secondary 2	6	Shield	13
Shield	7		



ELECTRICAL CONNECTION CABLE ELECTRONICS LVC2

Function	Connector output	Connection cable K4P...
+V	Pin 1	BN
Signal	Pin 2	WH
GND _{Supply}	Pin 3	BU
GND _{Signal}	Pin 4	BK

Connector output M12, male

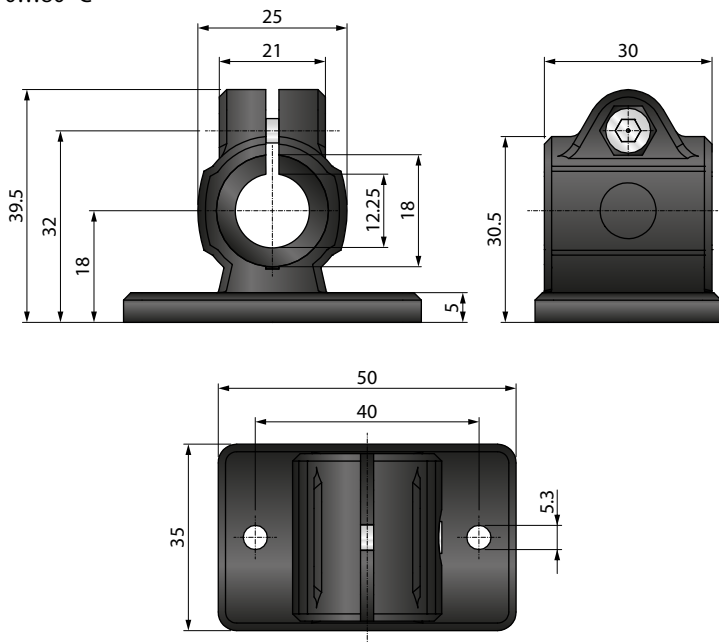


MOUNTING ACCESSORIES LV SERIES

Flange clamping piece FKPA-1218

Material: PA6-GB30

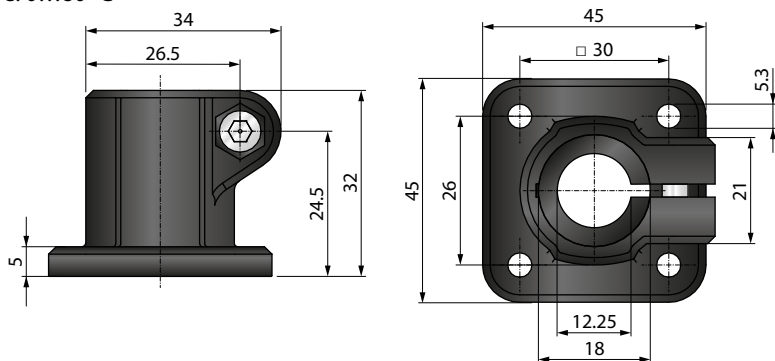
Temperature: 0...80 °C

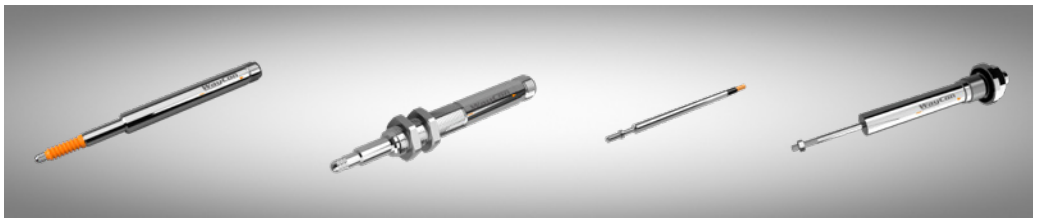


Flange clamping piece FSKPA-1218

Material: PA6-GB30

Temperature: 0...80 °C





WARNING NOTICES

- Do not open the device.
- Do not touch the push rod during operation.
- Protect the push rod from ice formation.
- In humid environments, install the sensor with the push rod outlet to the floor, otherwise water may collect inside the sensor.

MAINTENANCE

The devices are maintenance-free. However, if the push rod becomes soiled due to adverse environmental conditions, clean it with a cloth as required.

DISPOSAL

Please always dispose of defective or irreparable appliances in an environmentally friendly manner and in accordance with the applicable legal provisions and disposal regulations. If required, we will be happy to assist you with environmentally friendly disposal.

Caution: Incorrect disposal can cause environmental damage!

Certain components such as electrical waste, electronic components, lubricants and other auxiliary materials must be disposed of as hazardous waste.

Please note that hazardous materials may only be disposed of by authorized specialist companies.

Dismantled components should be disposed of as follows:

- Metal components with scrap metal
- Electronic components with electronic waste
- Plastic parts at the recycling centre
- Other components must be sorted and disposed of according to their material properties