Leuze electronic

Throughbeam photoelectric sensor

L3C / L3CL

We reserve the right to make changes – 2018/08 – 50137805

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IO-Link interface

Sensors in the LE3C.../L... variant have a dual-channel architecture. The IO-Link interface is available in accordance with specification 1.1.2 (July 2013) on pin 4 (OUT 1). You can easily, quickly and economically configure the devices via the IO-Link interface. Furthermore, the sensor transmits the process data via the IO-Link interface and makes diagnostic information available through it.
Parallel to the IO-Link communication, the sensor can output the continuous switching signal for object detection on OUT 2. The IO-Link communication does not interrupt this signal.

	NOTICE
	In the *Sensor Studio* configuration software, the following applies with regard to the designations: Q1 = OUT 1, Q2 = OUT 2.

The sensors offer no data storage and no ISDU support. The device can only be identified via VendorID and DeviceID.

IO-Link identification

VendorID dec/hex	DeviceID dec/hex	Device
338/0x0152	2122/0x00084A	LE3C/LP
	2123/0x00084B	LE3C1/LP

IO-Link process data

Device output data

Data bit	Assignment	Meaning
0	Switching output Q1 (OUT 1)	0 = inactive, 1 = active
1	Warning output autoControl	0 = no warning, 1 = warning
2	Sensor operation	0 = off, 1 = on Sensor operation off when detection is not possible (e.g during the teach event).
3	Not assigned	Free
4	Not assigned	Free
5	Not assigned	Free
6	Not assigned	Free
7	Not assigned	Free

Device-specific IODD

At www.leuze.com in the download area for IO-Link sensors you will find the IODD zip file with all data required for the installation.

IO-Link parameters documentation

The complete description of the IO-Link parameters can be found in the *.html files. Double-click on a language variant:

- German: *IODD*-de.html
- English: *IODD*-en.html

Functions configurable via IO-Link

PC configuration and visualization is performed comfortably with the USB-IO-Link Master SET US2-IL1.1 (part no. 50121098) and the *Sensor Studio* configuration software (in the download area of the sensor at www.leuze.com).

Function block	Function	Description
Configuration	Logical function of Q2	If the function Q2 = *switching output* is selected, the switching function corresponds to the current setting which was selected via the L/D changeover. If Q2 = *inv. switching output* is selected, the switching behavior of the output is inverted. If Q2 = *warning output* is selected, the warning output is activated.
	L/D switching	In the factory setting, outputs Q1 and Q2 are antivalent switching outputs: – Light switching: Q1 = light switching, Q2 = dark switching. – Dark switching: Q1 = dark switching, Q2 = light switching.
	Switching delay	*On* activates the internal time function.
	Function selection of the switching delay	Activation of a suitable switching delay is possible. It is not possible to combine switching delays. The following functions can be selected: – Start-up delay – Switch-off delay – Pulse stretching – Pulse suppression
	Time base of the switching delay	Defines the base of the switching delay, which, for the calculation of the switching delay, is multiplied by the factor. Possible time intervals for the time base are – 1 ms – 10 ms – 100 ms – 1000 ms
	Factor for the time base of the switching delay	To adapt the time base, it is multiplied by the entered factor. Only whole-number factors from 1 to 15 are permitted.

Function block	Function	Description
Commands The first four commands correspond to the functions which can be performed at the sensor using the teach button or the remote teach function.	Light switching	
	Dark switching	
	Switch the process data display mode to analog value	Activate to display diagrams on the *Process* tab when using *Sensor Studio* configuration software.