

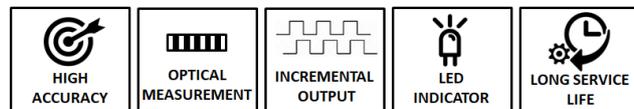
OPTICAL LINEAR ENCODER WITH ROLLER GUIDE

“Long Distance, Sensitive Measurement”

OLC 43X



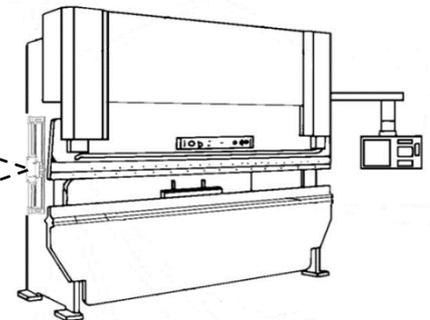
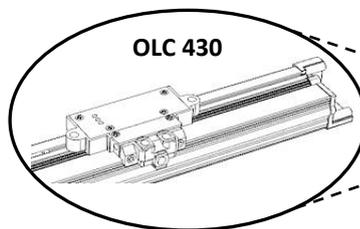
- Incremental optical system
- Different measuring lengths from 50 mm to 1000 mm
- Reader sensor which is beared with steel shafts and rollers
- Gasket protected aluminium body
- Selectable reference signal which can be selected at every 10 mm
- 3 pcs LED indicators
- 5µm resolution
- IP54 protection class
- Compact design
- Wide mounting tolerance when connected with joint
- 60 m/min traversing speed
- Compatible with Delem, Cybelec and ESA



The OLC 43X series optical linear encoders consist of a gasket protected aluminium body and reader sensor moving in this body. It is frictionless because of making non-contact measuring with glass scale. With its selectable reference signal at every 10 mm and its 5µm resolution, it is very suitable for high precision measurements. With gasketed structure, it has extra protection against dust, dirt and chip.

APPLICATION AREAS

- Manuel Benches
- Press Brakes and Bending Machines
- Robotic and Material Packaging
- Linear Bearing Systems
- Automation and Robotic Applications

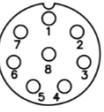


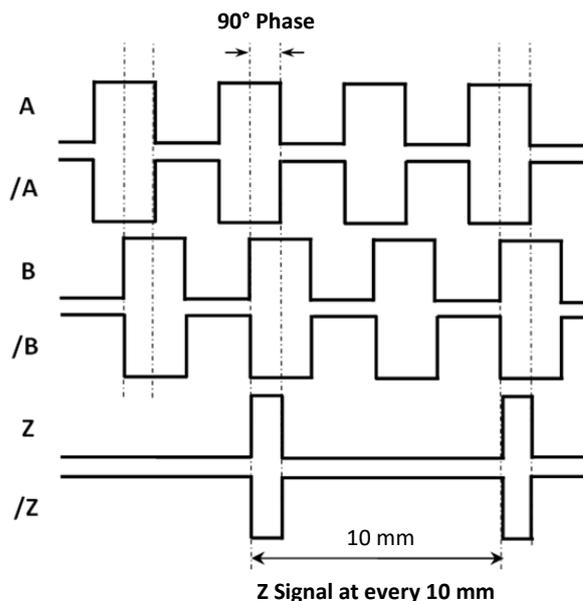
TECHNICAL SPECIFICATIONS

Measuring Type	Optical, transmissive	*Output Signals	A,B,Z A,B A,/A,B,/B A,/A,B,/B,Z,/Z
*Measuring Lengths	Different measuring lengths from 50 mm to 1000 mm	*Reference Signal	At the beginning, middle or end of the measuring length, or selectable with magnet every 10 mm
Resolution	5µm	Body Material	Aluminium
Signal Period	20 µm	Operating Temperature	0°C...50°C
Accuracy	± 10 µm	Storage Temperature	-20°C...70°C
Repeatability	± 1 pulse	Protection Class	IP54
Max Traversing Speed	60m/min	*Electrical Connection	M16 8 pin connector, 5 or 8 x 0.14 mm ² shielded cable
Max Acceleration	30 m/s ²	Max Cable Length	100 meters
Required Moving Force	≤1.5 N		
*Supply Voltage	5 VDC, 10...30 VDC		
Current Consumption	50 mA @5 VDC 70 mA @10...30 VDC		
*Output Type	TTL, Push Pull Line Driver, NPN or PNP		

Note: The specifications indicated by (*) vary depending on the model selected. The detailed code table for product selection is shown on page 4.

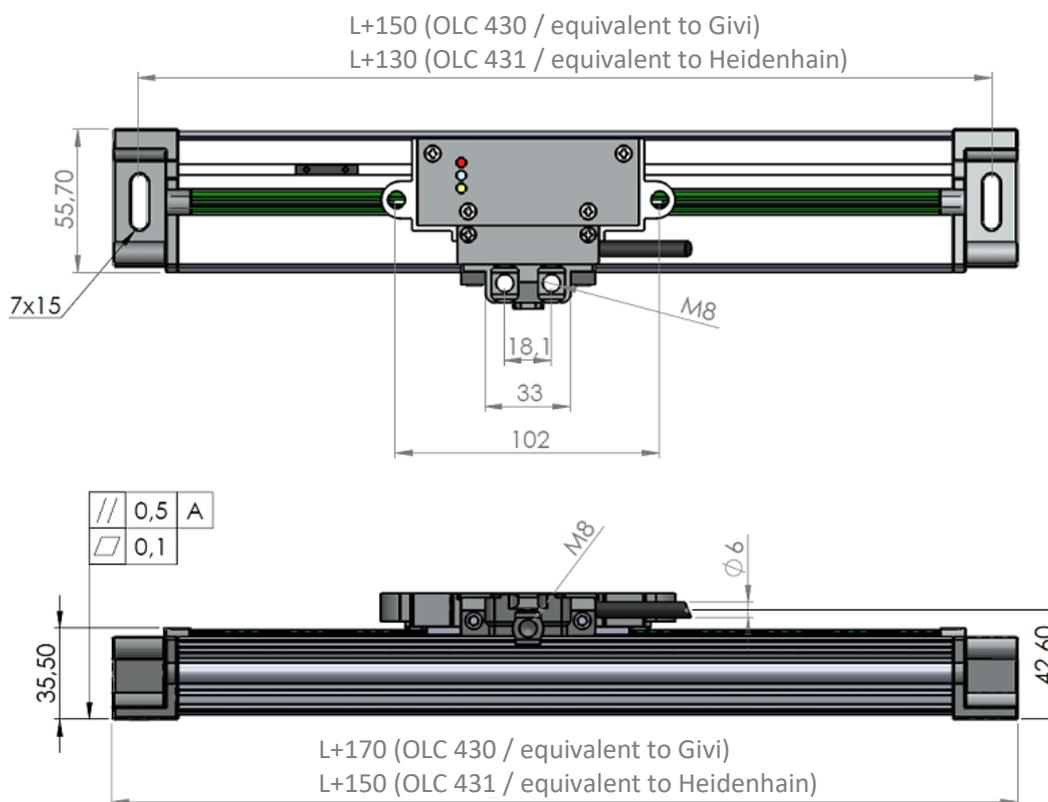
ELECTRICAL CONNECTIONS

SIGNAL	CABLE COLOR			M16 8 PIN FEMALE/ SOCKET PIN NO
+V	RED			1
0V	BLACK			2
A	YELLOW			3
Z	PINK			4
B	GREEN			5
/B	WHITE			6
/Z	GREY			7
/A	BLUE			8



In the above table, the cable colors of sensors output signals are given. If the control circuit is suitable in the Line Driver, sensors of the not output signals (/A, /B, /Z) have to be added to the system. If it is not suitable /A, /B, /Z signal cables must be fixed as insulated separately. Don't forget that these edges have electricity too.

MECHANICAL DIMENSIONS



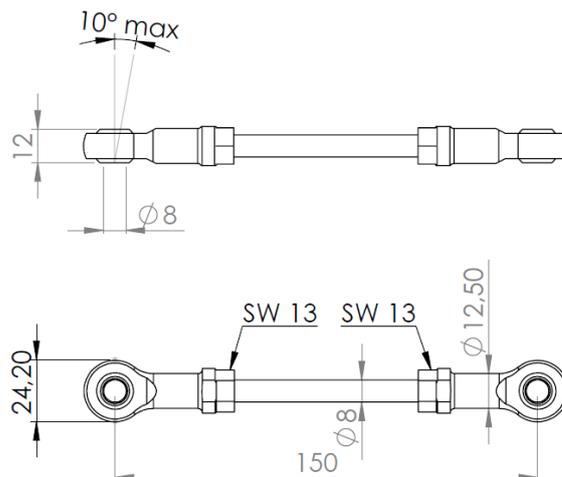
L: Measuring Length
A: Machine Guide

Standard Measuring Lengths* (L) (mm)									
50	70	100	120	150	170	200	220	250	270
300	320	350	370	400	420	450	470	500	550
600	650	700	750	800	850	900	950	1000	

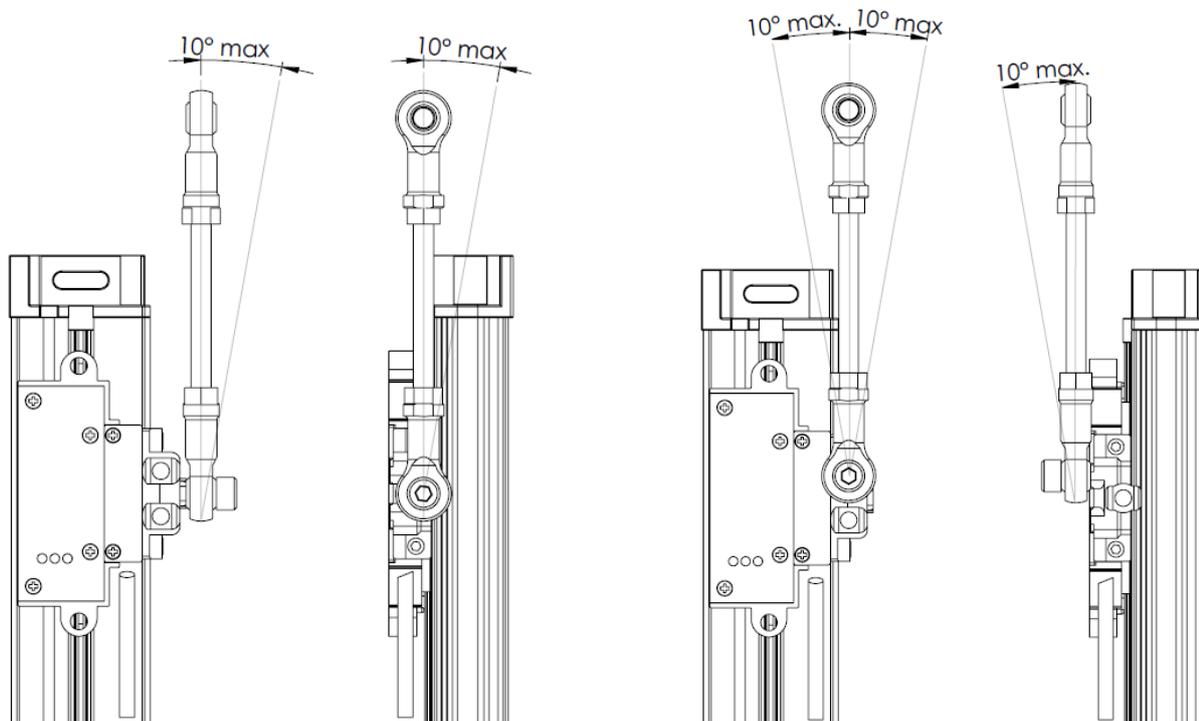
(*) Optionally, different measuring lengths can be requested. Please contact the company for non-standard requests.

MOUNTING ACCESSORIES

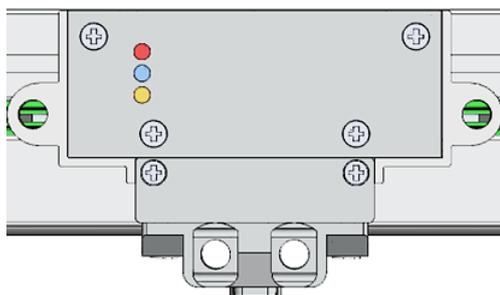
Connection Joints and Bolts



Linear Encoder and Joint Connection



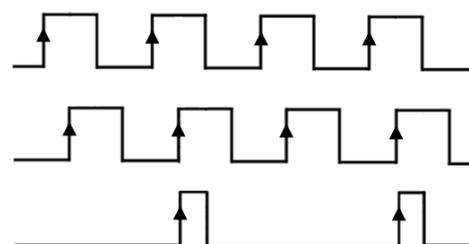
LED INDICATORS



Yellow LED: It is active at the rising edges of the A signal.

Blue LED: It is active at the rising edges of the B signal.

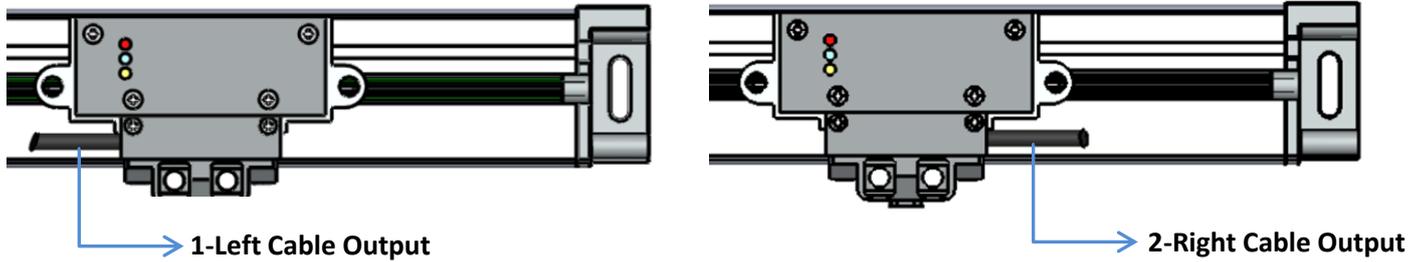
Red LED: It is active at the rising edges of the Z signal.



CABLE DIRECTION AND VE REFERENCE POINT SELECTION

Cable Direction Selection

The cable output can be selected from the right or left.

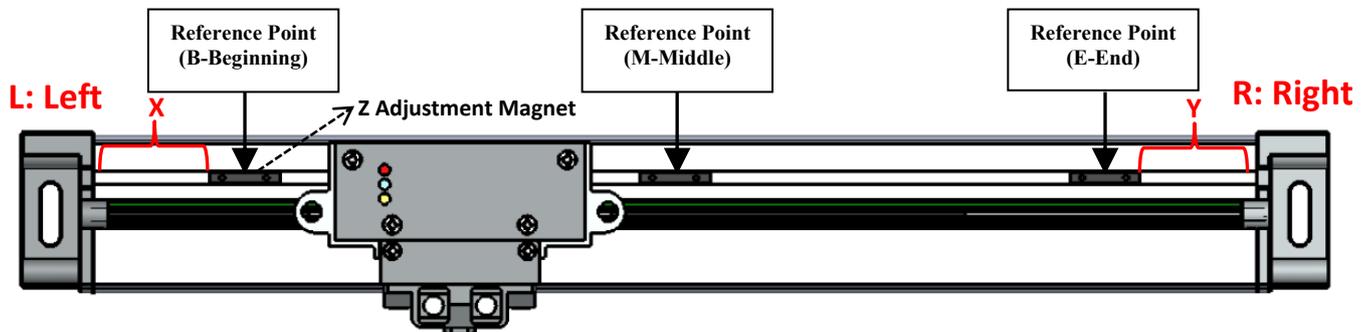


Reference Point Selection

Reference point;

Can be selected at the beginning, middle and / or end of the measurement length used as standard.

Or it can be adjusted as requested with the Z adjustment magnet in 10 mm steps along the measurement length from the reference points marked on the ruler when necessary.



NOTE:

In OLC 430 model; The reference points are 60 mm from the left (X) and right (Y) sides. There is an area that is not measured of 19 mm at the beginning and 11.4 mm at the end of the ruler.

In OLC 431 model; The reference points are 50 mm from the left (X) and right (Y) sides. There is an area that is not measured of 3.5 mm at the beginning and 6.5 mm at the end of the ruler.

WARNING !

During transportation, storage and use of the product, oil, dust, liquid, etc. avoid contact with substances. Otherwise, the product will be damaged and will be out of warranty.

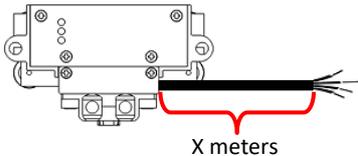
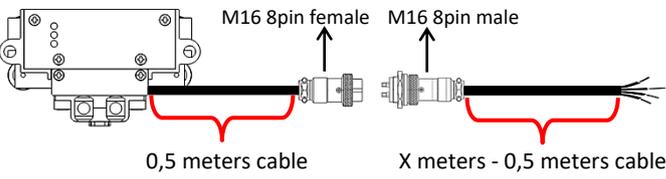
ORDER CODE

Model OLC 430 : L+150mm OLC 431 : L+130mm	Supply and Output PP : 10...30 VDC Supply : 10...30VDC Output TTL : 5 VDC Supply : 5 VDC TTL RS422 Line Driver Output HTL : 10...30 VDC Supply : 5 VDC TTL RS422 Line Driver Output HPL : 5...30 VDC Supply : 5...30 VDC Push-Pull Output OCL : NPN Open Collector OCP : PNP Open Collector	Cable Length* 3M : 3m cable 5M : 5m cable 10M : 10m cable *Optionally other lengths up to 100 meters.	Cable Type/ Direction* C : PUR Cable R : From right L : From left	Measuring Length (stroke)* Different measuring lengths from 50 mm to 1000 mm
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OLC 43X -
 XXX -
 XXX -
 X -
 XX -
 XX -
 X/X -
 XX -
 XX

Resolution 005 : 5µm	Output Signals 2 (A,B) 3 (A,B,Z) 4 (A,/A,B,/B) 6 (A,/A,B,/B,Z,/Z)	Socket Type* No code : No socket on cable SK : 0,5 m cable and M16 / 8 pin female socket + (X-0,5) meters cable and M16 / 8 pin male socket (X) : Cable length selected in previous code)	Reference Point (Z)* B : Beginning M : Middle E : End No code : No reference point *Optionally, can be selected requested with magnet at every 10 mm as requested.
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(*) Please contact us for non-standard requests.

Electrical Connection Options (Cable Length and Socket Type*)			
Cable Length	Socket Type		
X meters	No code	 X meters	X meters only with cable (without socket)
X meters	SK	 0,5 meters cable X meters - 0,5 meters cable	0,5 meters cable and M16 / 8 pin female socket + (X-0,5) meters cable and M16 / 8 pin male socket

Note: 1 pcs. d-sub 9 Pin male connector and joint set are included in the package.

Sample Code: OLC 430-005-PP-3-3M-SK-C/L-BE-100

Description: OLC 430 series, 5µm resolution, PP, A-B-Z output signals, 0.5 meters cable and M16 / 8 pin female socket + 2.5 m cable and M16 / 8 pin male socket, polyurethane cable and cable output from left, reference point is at the beginning and end of the encoder, 100 mm measuring length