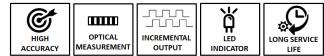


# **OPTICAL LINEAR ENCODER WITH ROLLER GUIDE**

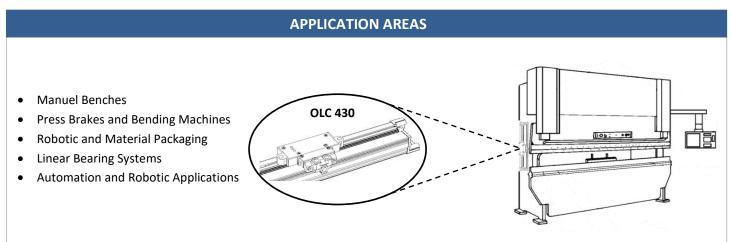
"Long Distance, Sensitive Measurement"



- Incremental optical system
- Different mesuring 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.

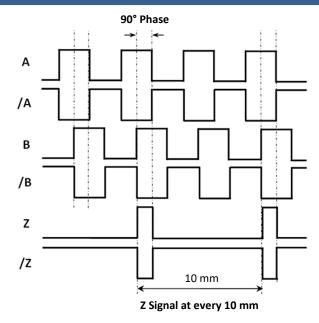


TECHNICAL SPECIFICATIONS							
Measuring Type	Optical, transmissive		A,B,Z				
*Measuring Lengths	Different measuring lengths from 50 mm to 1000 mm	A,B A,/A,B,/B A,/A,B,/B,Z,/Z					
Resolution	5μm		At the beginning, middle or end of the measuring length, or selectable				
Signal Period	20 μm	*Reference Signal					
Accuracy	± 10 μm	with magnet every 10 mm					
Repeatability	± 1 pulse	Body Material	Aluminium				
Max Traversing Speed	60m/min	Operating Temperature	0°C50°C				
Max Acceleration	30 m/s <sup>2</sup>						
<b>Required Moving Force</b>	≤1.5 N	Storage Temperature	-20 C70 C				
*Supply Voltage	5 VDC, 1030 VDC	Protection Class	IP54				
Current Consumption	50 mA @5 VDC 70 mA @1030 VDC	*Electrical Connection	M16 8 pin connector, 5 or 8 x 0.14 mm <sup>2</sup> shielded cable				
*Output Type	TTL, Push Pull Line Driver, NPN or PNP	Max Cable Length	100 meters				

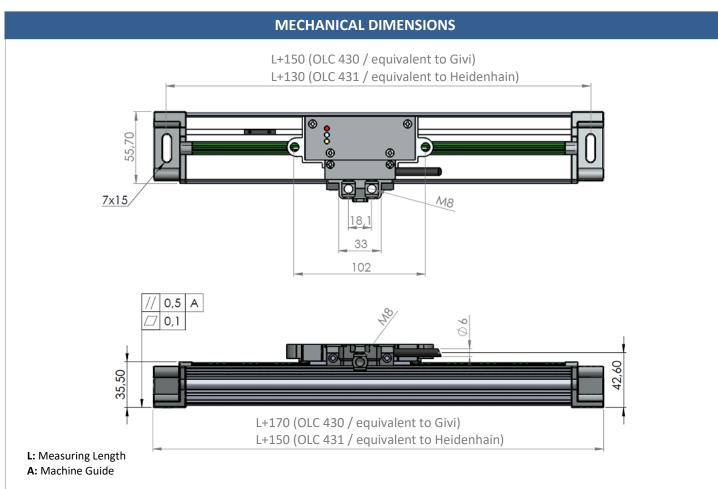
Note: The specifications indicated by (\*) vary depending on the model selected. The detailed code table for product selection is shown on page 4.

## **ELECTRICAL CONNECTIONS**

NO
-



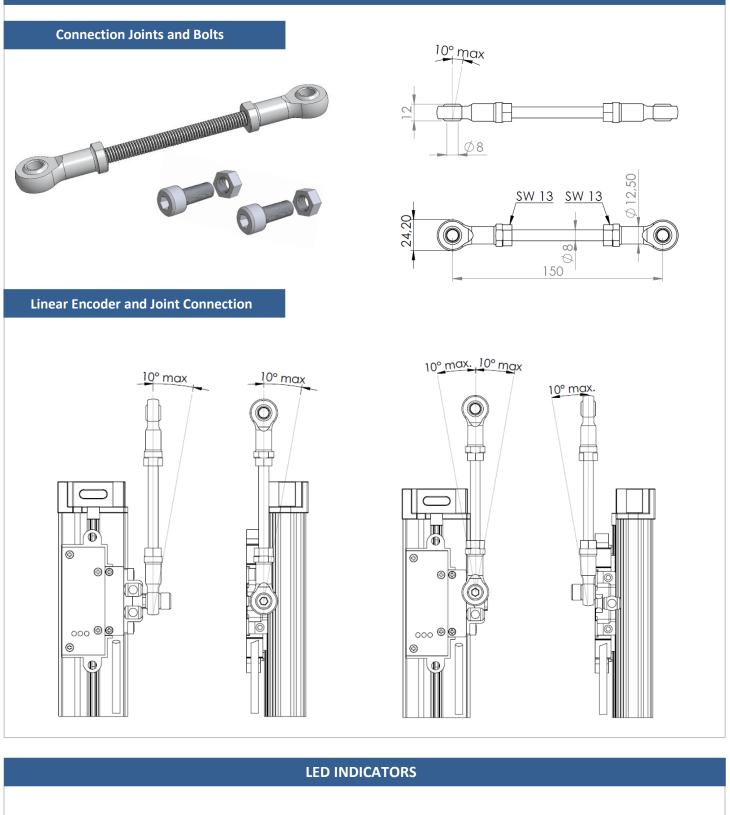
In the above table, the cable colors of sensors output signals are given. If the control circuit is suitable in the Line Driver, sensors of the not output signals (/A, /B, /Z) have to be added to the system. If it is not suitable /A, /B, /Z signal cables must be fixed as insulated separately. Don't forget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



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**



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

 $( \mathbf{f} )$ 

Ð

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

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

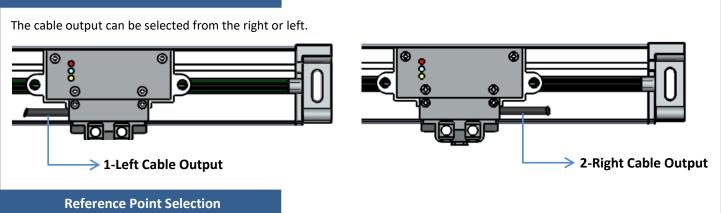
 $(\frac{1}{2})$ 

 $( \mathbf{f} )$ 

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## CABLE DIRECTION AND VE REFERENCE POINT SELECTION

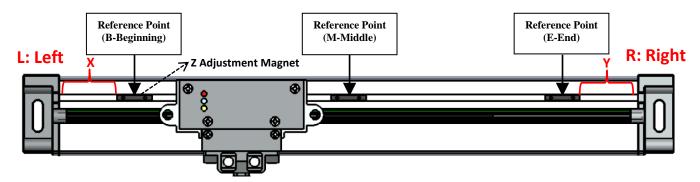
#### **Cable Direction Selection**



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.



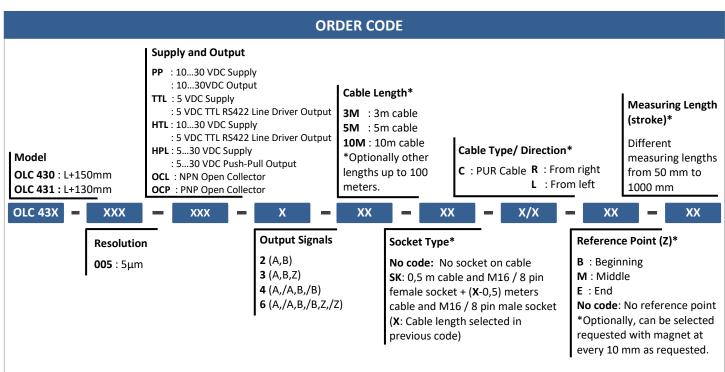
#### NOTE:

**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.



## (\*) Please contact us for non-standard requests.

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

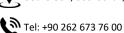
Note: 1 pcs. d-sub 9 Pin male connector and joint set are included in the package.

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

**Description:** OLC 430 series,  $5\mu$ m 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







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