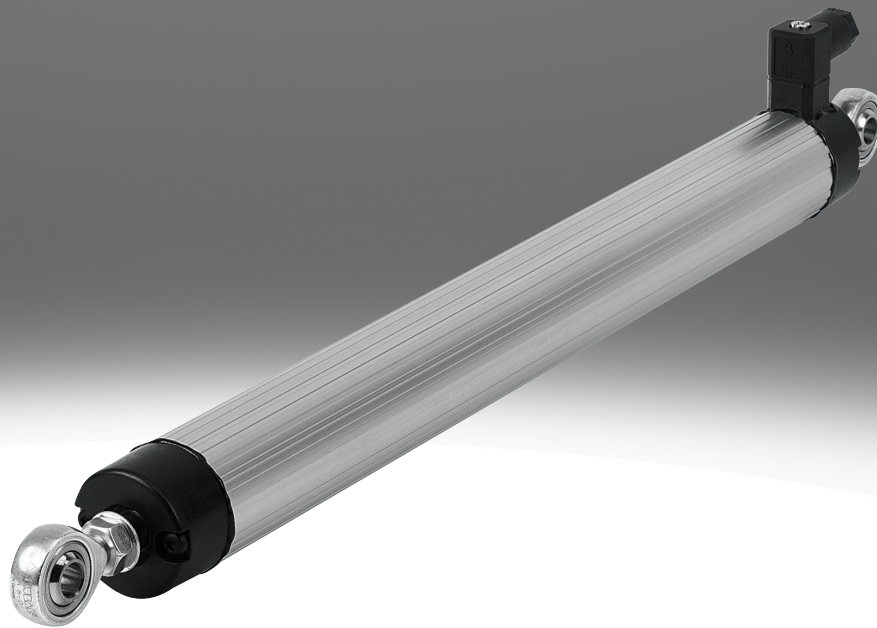


## Displacement encoder MLO-POT-LWG

**FESTO**



Type code

001	Series
MLO	Displacement encoder

002	Measuring principle
POT	Potentiometric

003	Stroke [mm]
100	100
150	150
225	225
300	300
360	360
450	450
600	600
750	750

004	Version
LWG	Connecting rod

## Datasheet

### General technical data

Stroke	100 mm	150 mm	225 mm	300 mm	360 mm	450 mm	600 mm	750 mm
Design	Round profile, With connecting rod							
Displacement resolution	0.01 mm							
Max. travel speed	5 m/s							
Max. travel acceleration	200 m/s <sup>2</sup>							
Mounting position	optional							
Angle offset of driver	± 12.5°							
Electrical connection	16 mm, 4-pin, Plugs, Square design							
Product weight	500 g	600 g	700 g	800 g	850 g	900 g	1,500 g	1,900 g

### Electrical data

Stroke	100 mm	150 mm	225 mm	300 mm	360 mm	450 mm	600 mm	750 mm
Nominal operating voltage DC	10 V							
Permissible voltage fluctuations	< 1%							
Max. operating voltage DC	42 V							
Max. current consumption	4 mA							
Recommended wiper current	1 µA							
Max. wiper current, short-time <sup>1)</sup>	10 mA							
Connection resistance	3 kOhm	5 kOhm						10 kOhm
Connection resistance tolerance	20%							
Non-dependent linearity	0.1%	0.08%	0.07%	0.06%	0.05%		0.04%	
Temperature coefficient	5 ppm/K							
Functional principle of measuring system	Analogue							

<sup>1)</sup> Only permissible for a short period in the event of a fault.

### Operating and environmental conditions

Ambient temperature	-30 ... 100°C
Functional principle of measuring system <sup>1)</sup>	Analogue
Degree of protection	IP65, To IEC 60529
Vibration resistance to DIN/IEC 68 Part 2-6	Tested to severity level 2
Continuous shock resistance to DIN/IEC 68 Part 2-82	Tested to severity level 2

<sup>1)</sup> Please note the temperature range of the individual components for a complete system solution.

### Materials

Material housing	Wrought aluminium alloy, Anodised
Material cover	PBT-reinforced
Material connecting rod	High-alloy stainless steel
Material bearing seal	NBR
Material rod seal	PTFE

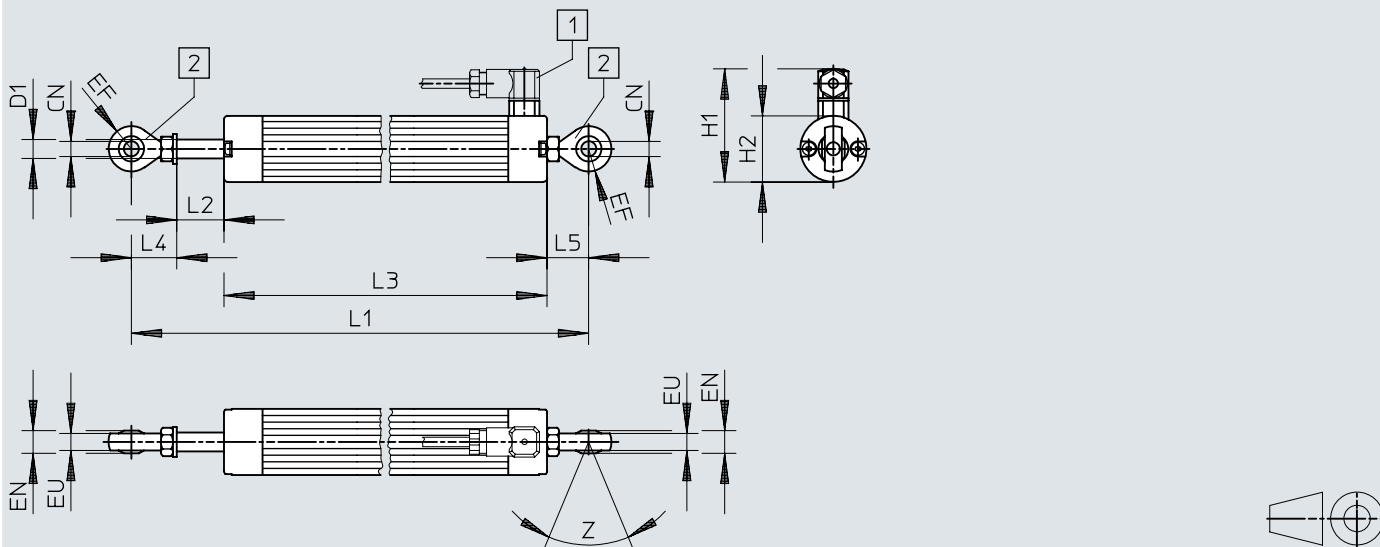
### Note

In general, mechanical vibrations of the piston rod must not be transmitted to the measuring system!  
 The potentiometer is earthed on a screw of the end cap using a plug-in cable lug or earth strap that is to be routed to the earth screw of the SPC11-...-LWG housing. The length of the earth cable should not be longer than the potentiometer cable of the SPC11-...-LWG. The connection must be set up with low impedance. The cable cross-section must be at least 1.5 mm<sup>2</sup>. An earth strap (braid) must be used instead of a round cable, as this is much better for dissipating interference.

## Dimensions

### Dimensions – Displacement encoders MLO-POT, analogue

Download CAD data → [www.festo.com](http://www.festo.com)



[1] Plug socket, 4-pin, type SD-4-WD-7, insert can be turned 90° (not included in the scope of delivery)


[2] Rod eye backlash-free

	CN ø H7	D1 ø	EF	EN	EU	H1	H2
MLO-POT-100-LWG	8	10	12	12	9,2	60	35
MLO-POT-150-LWG							
MLO-POT-225-LWG							
MLO-POT-300-LWG							
MLO-POT-360-LWG							
MLO-POT-450-LWG							
MLO-POT-600-LWG							
MLO-POT-750-LWG							

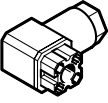
	L1	L2 <sup>1)</sup>	L3	L4	L5	Z
MLO-POT-100-LWG	273	10 5/102	227	24	22	25°
MLO-POT-150-LWG	323	15 5/152	277			
MLO-POT-225-LWG	400	23 1/228	354			
MLO-POT-300-LWG	476	30 7/304	430			
MLO-POT-360-LWG	551	36 8/366	505			
MLO-POT-450-LWG	665	46 0/457	619			
MLO-POT-600-LWG	856	61 2/610	810			
MLO-POT-750-LWG	1040	76 4/762	994			

1) Mechanical/electrical stroke

## Ordering data

Ordering data			
	Stroke	Part no.	Type
	100 mm	192213	MLO-POT-100-LWG
	150 mm	192214	MLO-POT-150-LWG
	225 mm	152645	MLO-POT-225-LWG
	300 mm	152646	MLO-POT-300-LWG
	360 mm	152647	MLO-POT-360-LWG
	450 mm	152648	MLO-POT-450-LWG
	600 mm	152650	MLO-POT-600-LWG
	750 mm	152651	MLO-POT-750-LWG

Accessories

Plug socket SD			
	Material housing	Part no.	Type
	PA-reinforced	194332	SD-4-WD-7