

# Datasheet

## General features

- Measuring range 30 to 1000 mm
- Long mechanical life: 100 million movements
- Repeatability:  $\pm 0.005\%$  (full scale)
- CANopen protocol
- 24 VDC power supply



**CANopen**

## Technical specifications

Measurement stroke	30 to 1000 mm
Resolution	10 $\mu\text{m}$ : 30 - 300 mm, 20 $\mu\text{m}$ : 300 - 500 mm, 40 $\mu\text{m}$ : 500 - 1000 mm
Repeatability	$\pm 0.005\%$ (full scale)
Output	CANopen
Power supply	8 up to 30 VDC
Displacement speed	<5 m/s (depending on stroke length)
Max. consumption	0.6 W
Linearity	$\pm 0.05\%$ (>200 mm), $\pm 0.1\%$ (131 - 200 mm), $\pm 0.2\%$ (75 - 130 mm), $\pm 0.5\%$ (<75 mm)
Reverse polarity protection	up to -30 VDC
Overvoltage protection	up to 30 VDC
Update time	1 ms (at 500 Kbit/s)
Interface	CAN (Controller Area Network)
Protocol	CANopen
Data-length	16 bit
Communication	CiA 301 <sup>1)</sup> CiA 406 V 3.2 <sup>2)</sup>
Diagnostic LEDs	LED green : Power on, CAN communication active LED red : Error, Stop mode
Mechanical life	100 million movement
Case dimensions	33 mm x 33 mm
Case material	Anodized aluminium
Rod diameter	$\varnothing 6$ mm
Rod material	Stainless steel
Mechanical fixing	Variable brackets
Sensor address (default node ID)	1 up to 127 (default node ID : 20)
Baud rate	10 Kbit/s to 1 Mbit/s (default baud rate : 500 Kbit/s)
Termination	120 R configure with software
Properties <sup>3)</sup>	Asynchronous - Synchronous communication, <a href="#">PDO</a> , <a href="#">SDO</a> , Guard-time, Heartbeat, Node ID, Baud rate, Termination, etc.
PDO (Process data object)	1800h PDO1 : Asynchronous position value 1800h PDO2 : Synchronous position value 1800h PDO3 : Asynchronous speed value
IP rating	IP65
Operating temperature	-20°C ... +80°C
Storage temperature	-30°C ... +90°C

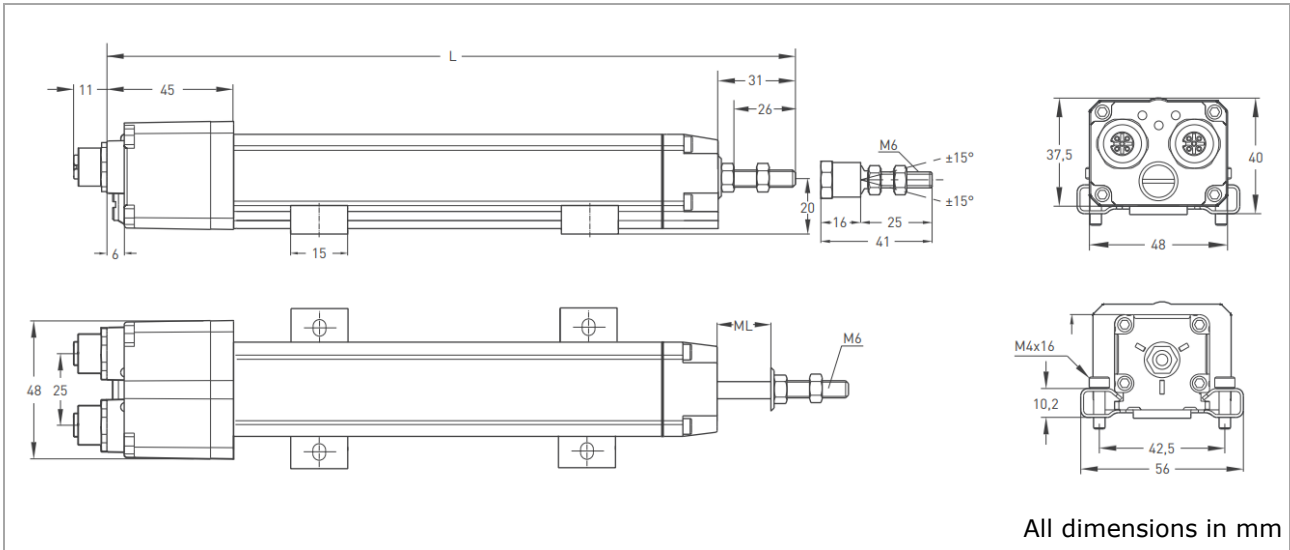
<sup>1)</sup> CANopen application layer and communication profile.

<sup>2)</sup> CANopen device profile for encoders.

<sup>3)</sup> Service Data Objects (SDO) for parameterization of object dictionary entries,  
Process Data Objects (PDO) for transporting real-time data,  
failure monitoring of CANopen network using heartbeat and guarding mechanisms.

# Datasheet

## Dimensions



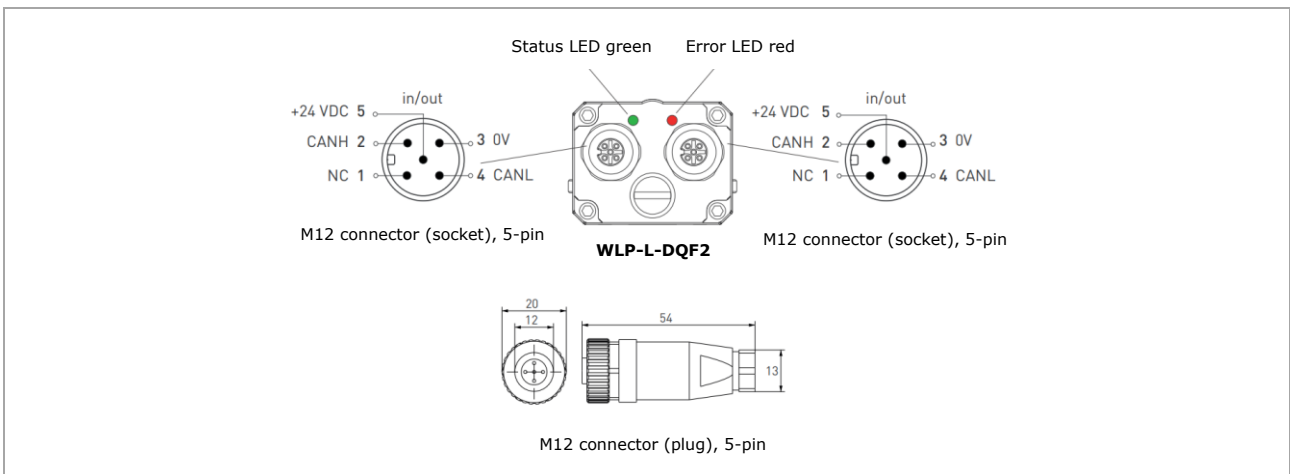
## Measuring range

<b>WLP-L-DQF2</b> (mm)	30	50	75	100	125	130	150	175	200	225
<b>ML</b> (Measuring Length)	30	50	75	100	125	130	150	175	200	225
<b>L</b> (Total Length)	175	195	220	245	270	275	295	320	325	350

<b>WLP-L-DQF2</b> (mm)	250	275	300	325	350	375	400	450	500	550
<b>ML</b> (Measuring Length)	250	275	300	325	350	375	400	450	500	550
<b>L</b> (Total Length)	375	400	425	450	475	500	525	575	625	675

<b>WLP-L-DQF2</b> (mm)	600	650	700	750	800	850	900	1000
<b>ML</b> (Measuring Length)	600	650	700	750	800	850	900	1000
<b>L</b> (Total Length)	725	775	825	875	925	975	1025	1125

## Electrical connection



# Datasheet

## Ordering example

**Type**                    **WLP-L** - **DQF2** - **150** - **COB** - **6BR** - **1S0** - **20** - **BR02**

### Category

**D** = digital; fieldbus output

### Type of construction

**Q** = quadratic

### Location of electrical connection

**F** = frontal

### Connection type

**2** = M12 connector (socket), 5-pin

### Measurement stroke (mm)

30 ... 1000 mm (see table)

### Protocol

**COB** = CANopen

### Baud rate (kbit/s)

0BR = 10

1BR = 20

2BR = 50

3BR = 100

4BR = 125

5BR = 250

**6BR** = 500

7BR = 800

8BR = 1000

### Termination

**1S0** = off

1S1 = on

### Node ID

1 - 127

### Mechanical fixing

**BR01** = 1x variable connecting bracket

**BR02** = 2x variable connecting bracket

Without prior notice, the products may be subject to modifications that the Manufacturer reserves to introduce as deemed necessary for their improvement.