

Linear transducer

KL 100 - 1000

Stroke length 10 - 100mm

5,000,000 cycles

Conductive plastic

## Features

- Position signal
- Displacement measuring
- Carriage control
- Dosing

## Options

- Linearity  $\pm 0.25\%$  (KL 100  $\pm 0.5\%$ )
- Resistance values between 1K $\Omega$  and 20K $\Omega$
- Stroke lengths from 10 mm to 100 mm
- Feed-through shaft
- Longer shaft
- Lead connections
- Longer cable
- Redundant signal



## Mechanical Data

Cross-section	13 × 13 mm
Standard stroke-lengths	10, 25, 50, 75 and 100 mm
End –stop strength	max. 200N
Operating force – model SE	3 N max
Operating force – model SEF	10 N max
Operating speed	max. 0.1 m/s
Repeatability	0.05 mm
Life expectancy	5,000,000 cycles

## Electrical Data

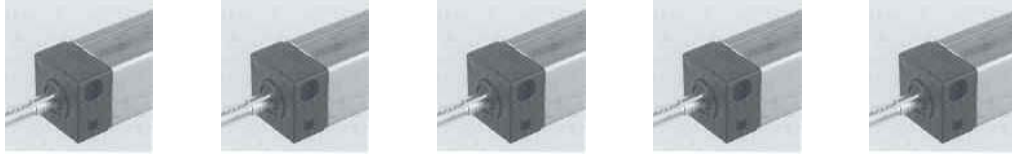
Nominal resistance R	1K/5K $\Omega$
Resistance tolerance	+/- 20%
Linearity	+/-1%
Recimmeded wiper current	<0.1 $\mu$ A
Max. wiper curr. in case of malfunc.	10mA
Power rating	0.5W/40 $^{\circ}$ C
Maximum supply voltage	$U_{max} = (P \times R)^{-1/2}$
Maximum contact resistance	ENR 20K $\Omega$
Temperature coefficient voltage divider	50 ppm/ $^{\circ}$ C
Dielectric strength	700VAC/1min
Insulating resistance	10G $\Omega$ at 500VDC

## Environmental Conditions

Storage temperature range	-25...+105 $^{\circ}$ C
Operating temperature range	-25...+75 $^{\circ}$ C
Climatic rating	25/075/56
Protection rating	IP65
Vibration	10G (30-2,000 Hz, 0.75mm)
Shock	50G (half sine pulse, 7ms)

## Material

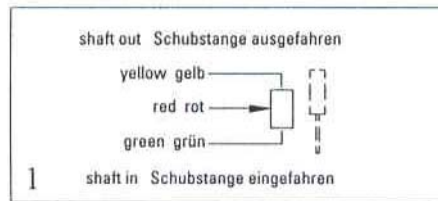
Housing	Anodized aluminium
Bearing	Plastic
Cable	1 m PUR 3×0.06mm <sup>2</sup>



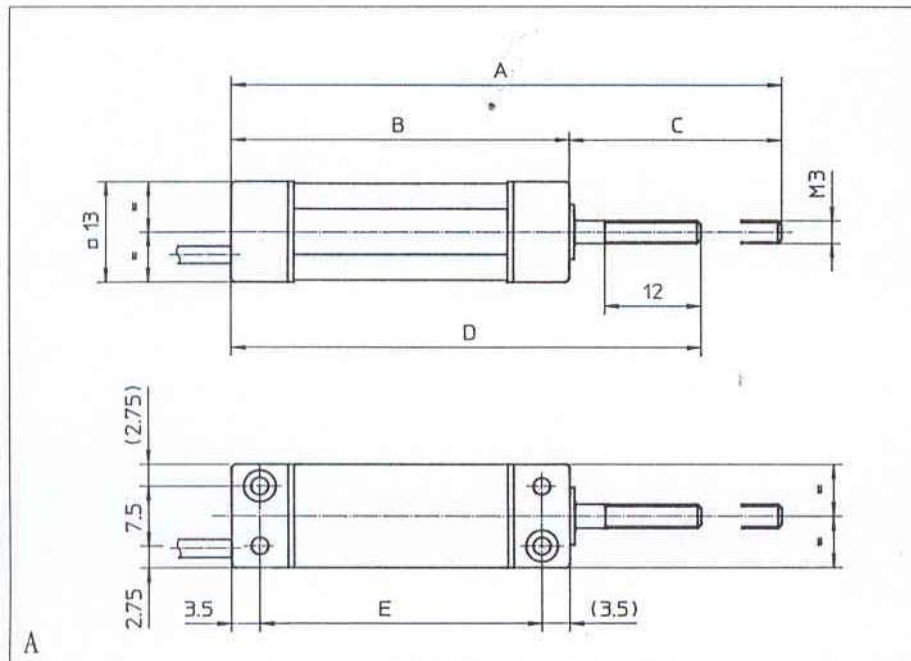
Model	KL 100 SE	KL 250 SE	KL 500 SE	KL 750 SE	KL 1000 SE
Connecting diagram	1	1	1	1	1
Dimension drawing	A	A	A	A	A
Electr. stroke length in mm	10	25	50	75	100
Dimensions in mm					
A	68.5	98.5	148.5	198.5	248.5
B	42	57	82	107	132
C	26.5	41.5	66.5	91.5	116.5
D	58.5	73.5	98.5	123.5	148.5
E	35	50	75	100	125

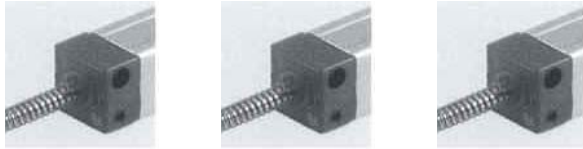
SE = Single ended shaft version

### Connecting diagram



### Dimension drawing

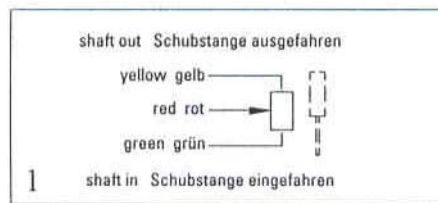




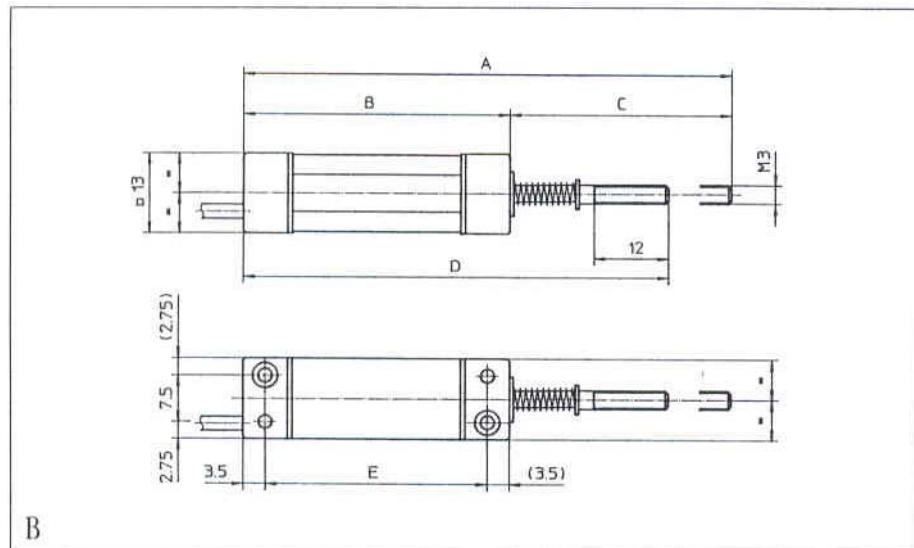
Model	KL 100 SEF	KL 250 SEF	KL 500 SEF
Connecting diagram	1	1	1
Dimension drawing	B	B	B
Electr. stroke length in mm	10	25	50
Dimension in mm			
A	77.5	117.5	177.5
B	42	57	82
C	35.5	60.5	95.5
De	67.5	92.5	127.5
E	35	50	75

SEF = Single ended shaft, with return spring

### Connecting diagrams



### Dimension drawings





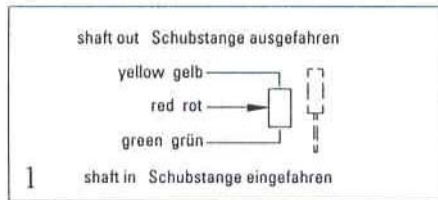
Model	KL 100 SEZN	KL 250 SEZN	KL 500 SEZN	KL 750 SEZN	KL 1000 SEZN
Connecting diagram	1	1	1	1	1
Dimension drawing	C	C	C	C	C
Electr. stroke length in mm	10	25	50	75	100
Dimensions in mm					
A	78.5	108.5	158.5	208.5	258.5
B	42	57	82	107	132
C	36.5	51.5	76.5	101.5	126.5
D	68.5	83.5	108.5	133.5	158.5
E	35	50	75	100	125

SE = Single ended shaft version

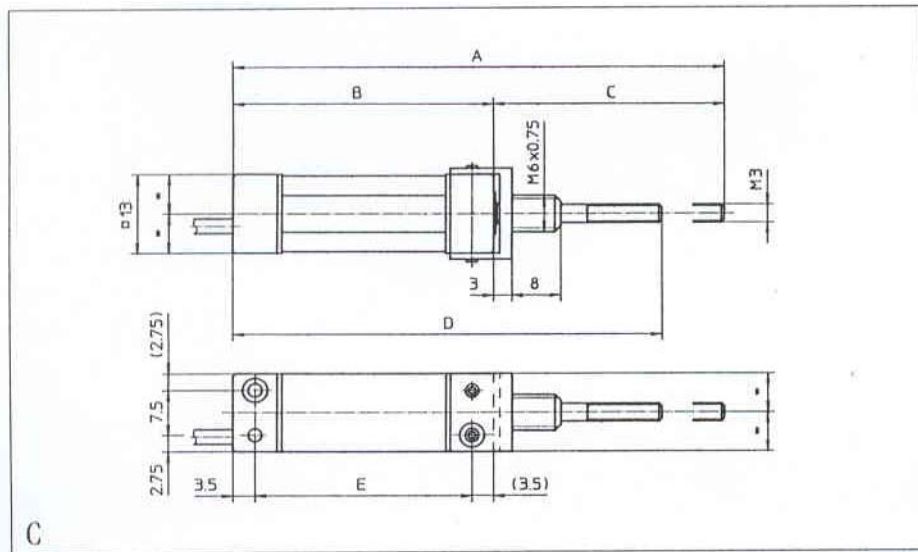
Z = Bush mounting

N = M6 × 0.75

### Connecting diagrams



### Dimension drawings





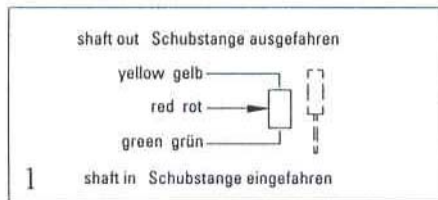
Model	KL 100 SEZM	KL 250 SEZM	KL 500 SEZM	KL 750 SEZM	KL 1000 SEZM
Connecting diagram	1	1	1	1	1
Dimension drawing	D	D	D	D	D
Electr. stroke length in mm	10	25	50	75	100
Dimensions in mm					
A	75.2	105.2	155.2	205.2	255.2
B	41.7	56.7	81.7	106.7	131.7
C	33.5	48.5	73.5	98.5	123.5
D	65.2	80.2	105.2	130.2	155.2

SE = Single ended shaft version

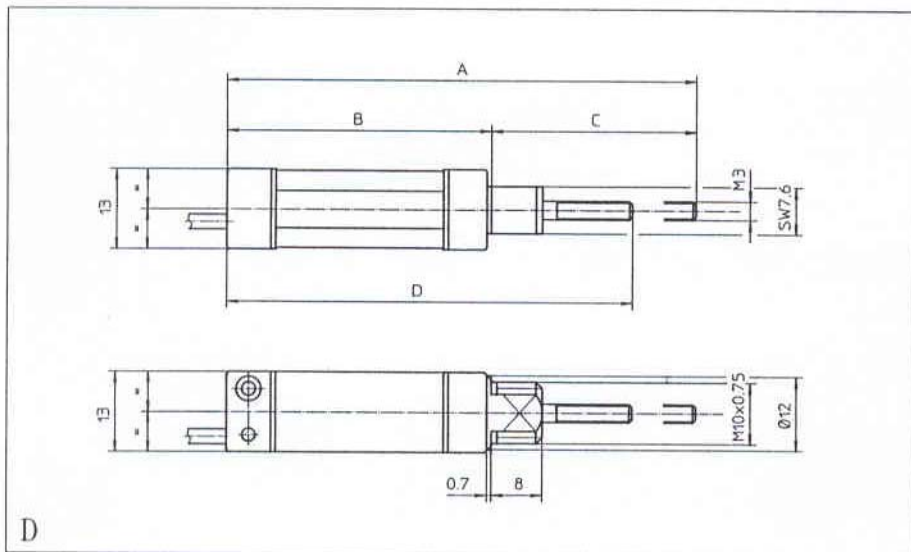
Z = Bush mounting

M = M10 × 0.75

### Connecting diagrams



### Dimension drawings





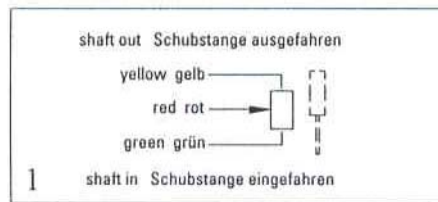
Model	KL 100 SEFZN	KL 250 SEFZN	KL 500 SEFZN
Connecting diagram	1	1	1
Dimension drawing	E	E	E
Electr. stroke length in mm	10	25	50
Dimension in mm			
A	88.5	128.5	188.5
B	42	57	82
C	46.5	71.5	106.5
De	78.5	103.5	138.5
E	35	50	75

SEF = Single ended shaft, with return spring

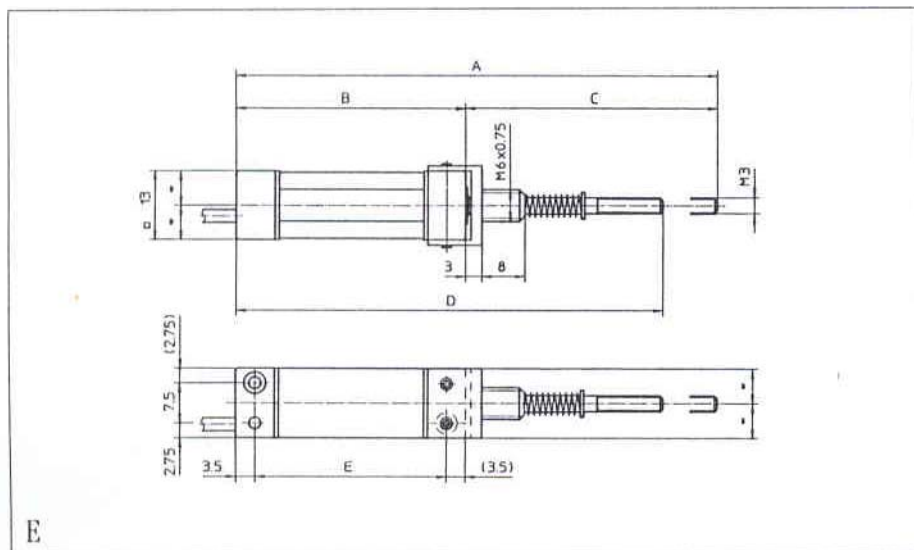
Z = Bush mounting

N = M6 × 0.75

### Connecting diagrams



### Dimension drawings





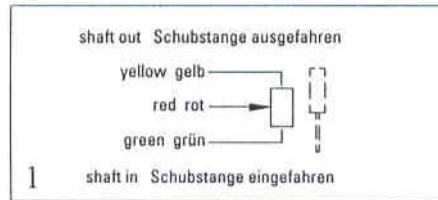
Model	KL 100 SEFZM	KL 250 SEFZM	KL 500 SEFZM
Connecting diagram	1	1	1
Dimension drawing	F	F	F
Electr. stroke length in mm	10	25	50
Dimension in mm			
A	85.2	125.2	185.2
B	41.7	56.7	81.7
C	43.5	68.5	103.5
De	75.2	100.2	135.2

SEF = Single ended shaft, with return spring

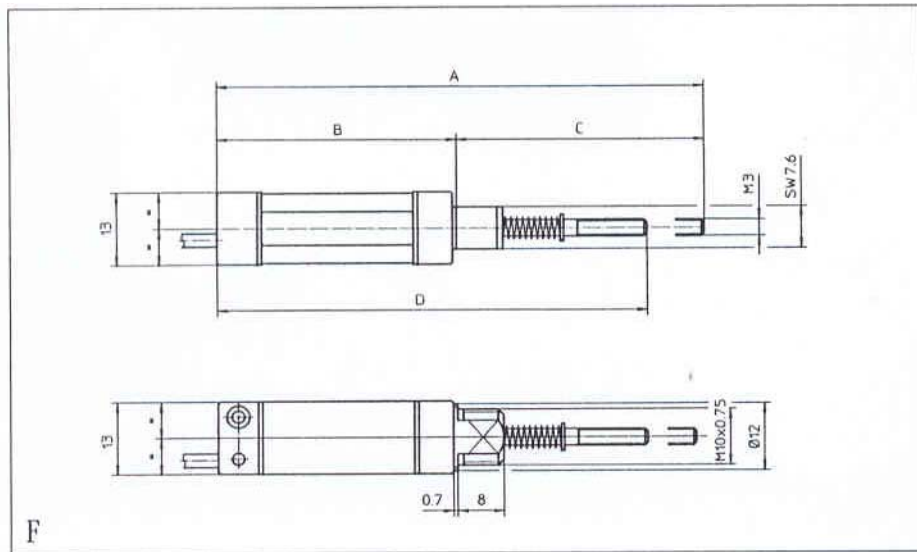
Z = Bush mounting

M = M10 × 0.75

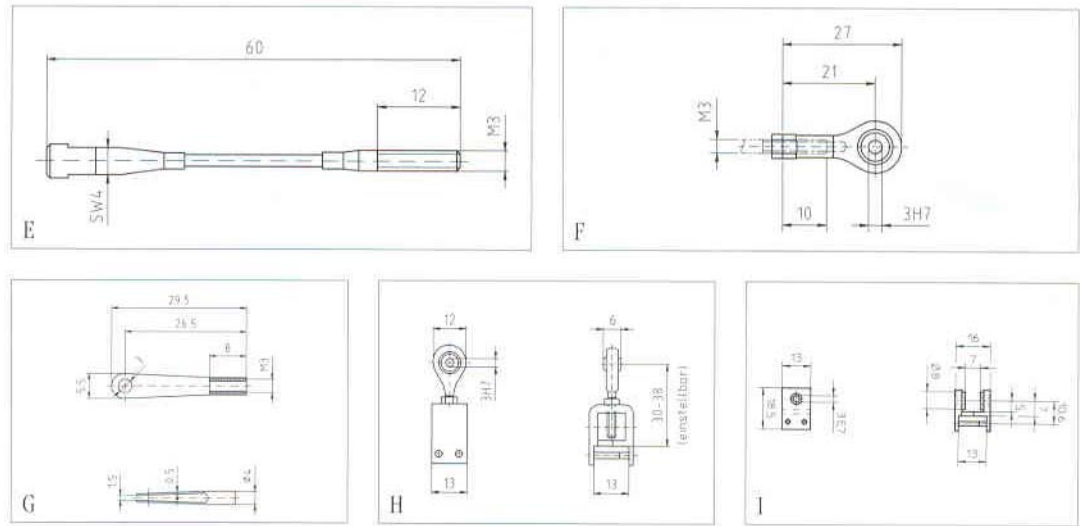
### Connecting diagrams



### Dimension drawings



Accessories/Dimension



Art. No.	Model	Marking	Remarks
70800	ZK-E 060	Elastic coupling to balance angular displacement	Drawing E
82289	ZK-G	Rod end bearing with M3 internal thread, inox	Drawing F
82290	ZK-S	Fork coupling with M3 internal, inox	Drawing G
82228	ZK-A	Aluminium-A-Profile	Drawing H
82291	ZK-H	Aluminium-H-Profile	Drawing I
82292	ZK-M	Gauging tip	Drawing J
82293	ZK-K	Acorn nut for simple gauging operations	Drawing K

