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KUEBLER - WIRE ENCODERS D135

SERIE D8.4D1



- Max measuring length 40000 mm
- -20° to +85°C
- Ready speeds up to 10 m / s
- Titan-anodized aluminum housing

PRODUCT DESCRIPTION

The Kübler wire generators are designed for demanding applications, for example within the machine building segment. The systems are robustly built with aluminum housing resistant to tough environments, they can handle high speed and have long life. The D135 series comes with analogue, incremental or absolute (SSI / BiSS, CANopen, Profibus, EtherCAT, Profinet or DeviceNet) outputs, and up to 42 500mm drag wires.

Please refer to the images below for ordering information.

Order code with encoder (incremental, absolute)

D8.4D1	.	XXXX	.	XX	X	X	.	XXXX
Type		ⓐ		ⓑ	ⓒ	ⓓ		ⓔ

Standard variants are represented **bold underlined**

ⓐ *Measuring range*
0800 = 8 000 mm
1000 = 10 000 mm
1200 = 12 000 mm
1500 = 15 000 mm
2000 = 20 000 mm
2500 = 25 000 mm
3000 = 30 000 mm
3500 = 35 000 mm
4000 = 40 000 mm
4250 = 42 500 mm

ⓑ *Encoder used*
00 = Sendix 5000, incremental
M3 = Sendix M5863, absolute
F3 = Sendix F5863, absolute
63 = Sendix 5863, absolute
M8 = Sendix M5868, absolute
F8 = Sendix F5868 absolute
68 = Sendix 5868, absolute

ⓒ *Output circuit*
depends on the encoder used

ⓓ *Type of connection*
depends on the encoder used

ⓔ *Resolution / Protocol / Options*
depends on the encoder used

Optional on request
- Other measuring ranges
- Cable diameter 1 mm
- Eyelet or M4 wire fastening instead of wire clip
- Modified cable and/or connector orientation
- Modified cable outlet direction
- Sensor protection level IP67
- Improved linearity (0.02 %)

Standard resolutions for draw wire with incremental encoder Sendix 5000

Drum circumference [mm]	333.33	333.33	333.33
Pulses / revolution [ppr]	1000	2000	4000
Pulses / mm	3	6	12
Resolution [mm]	0.33	0.17	0.08

Standard resolutions for draw wire with absolute encoder Sendix M5863 (12 bit ST) or M5868 (12 bit ST, programmable via bus)

Drum circumference [mm]	333.33
Pulses / revolution [ppr]	4096
Pulses / mm	12.3
Resolution [mm]	0.08

Order code with encoder (analog, scalable with limit switch function)

D8.4D1	.	XXXX	.	M1	XX	.	XXXX
Type		ⓐ		ⓑ	ⓒⓓ		ⓔ

Standard variants are represented **bold underlined**

ⓐ *Measuring range*
0800 = 8 000 mm
1000 = 10 000 mm
1200 = 12 000 mm
1500 = 15 000 mm
2000 = 20 000 mm
2500 = 25 000 mm
3000 = 30 000 mm
3500 = 35 000 mm
4000 = 40 000 mm
4250 = 42 500 mm

ⓑ *Encoder used*
M1 = Sendix M5861, absolute [1)]

ⓒ *Output circuit*
depends on the encoder used

ⓓ *Type of connection*
depends on the encoder used

ⓔ *Resolution / Protocol / Options*
depends on the encoder used

Optional on request
- Other measuring ranges
- Cable diameter 1 mm
- Eyelet or M4 wire fastening instead of wire clip
- Modified cable and/or connector orientation
- Modified cable outlet direction
- Sensor protection level IP67

Recommended standard variants (with encoder analog, scalable with limit switch function)

Order no. draw wire encoder	Mounted encoder	Interface	Power supply	Type of connection	Resolution / Protocol	Option
D8.xD1.xxxx.M134.3512	Sendix M5861 (8.M5861.3534.3512)	Analog, 4 ... 20 mA	10 ... 30 V DC	radial M12 connector	12 Bit / 4 ... 20 mA	scalable with limit switch function [2)]
D8.xD1.xxxx.M144.4512	Sendix M5861 (8.M5861.3544.4512)	Analog, 0 ... 10 V	15 ... 30 V DC	radial M12 connector	12 Bit / 0 ... 10 V	scalable with limit switch function [2)]
D8.xD1.xxxx.M134.3612	Sendix M5861 (8.M5861.3534.3612)	Analog, 4 ... 20 mA	10 ... 30 V DC	radial M12 connector	12 Bit / 4 ... 20 mA	scalable without limit switch function [2)]
D8.xD1.xxxx.M144.4612	Sendix M5861 (8.M5861.3544.4612)	Analog, 0 ... 10 V	15 ... 30 V DC	radial M12 connector	12 Bit / 0 ... 10 V	scalable without limit switch function [2)]

Order code with analog sensor (scaled to measuring range)

D8.3D1	.	XXXX	.	XXX	X	.	0000
Type		ⓐ		ⓑ	ⓒ		

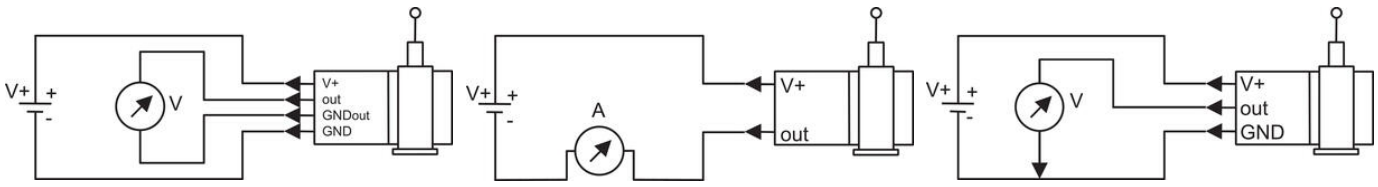
ⓐ *Measuring range*
0800 = 8 000 mm
1000 = 10 000 mm
1500 = 15 000 mm
2000 = 20 000 mm
2500 = 25 000 mm
3000 = 30 000 mm
3500 = 35 000 mm
4000 = 40 000 mm

ⓑ *Analog sensor output / power supply*
A11 = 4 ... 20 mA / 12 ... 30 V DC
A22 = 0 ... 10 V / 12 ... 30 V DC
A33 = potentiometer 1 kΩ / max. 30 V DC

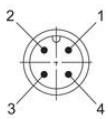
ⓒ *Type of connection*
1 = axial cable, 2 m [6.56'] PVC
3 = axial M12 connector, 4-pin

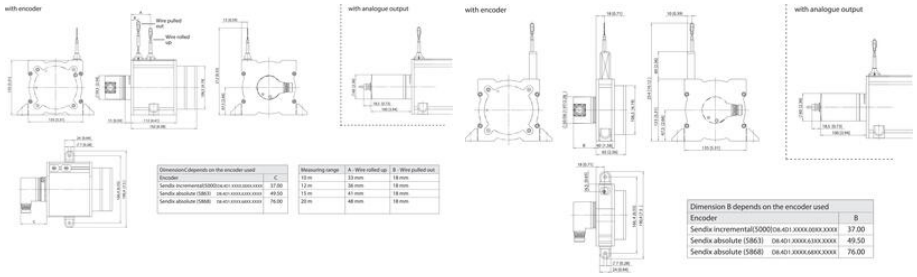
Optional on request
- Other measuring ranges
- Cable diameter 1 mm
- Eyelet or M4 wire fastening instead of wire clip
- Modified cable and/or connector orientation
- Modified cable outlet direction
- Sensor protection level IP67
- Improved linearity (0.02 %)
- Increased temperature range -40°C ... +85°C and -20°C ... +120°C

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Pin	1	2	3	4
Cable colour	brown	white	blue	black
0 ... 10V	V+	Signal	GND	GND Sig.
4 ... 20 mA	V+	n. c.	Signal	n. c.
1 kOhm	V+	Slider	GND	n. c.

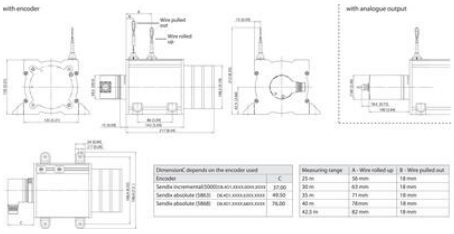




Dimension C depends on the encoder used	
Encoder	C
Sendix incremental (5000) D8.4D1.XXXX.0XXX.XXXX	37.00
Sendix absolute (5863) D8.4D1.XXXX.63XX.XXXX	49.50
Sendix absolute (5868) D8.4D1.XXXX.68XX.XXXX	76.00

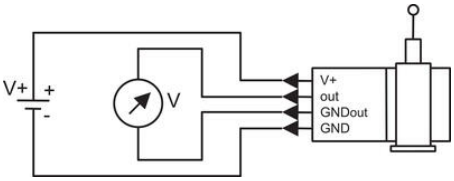
Measuring range	A - Wire rolled up	B - Wire pulled out
10 m	33 mm	18 mm
12 m	36 mm	18 mm
15 m	41 mm	18 mm
20 m	48 mm	18 mm

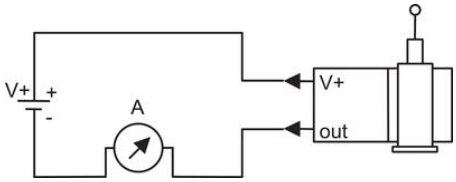
Dimension B depends on the encoder used	
Encoder	B
Sendix incremental (5000) D8.4D1.XXXX.0XXX.XXXX	37.00
Sendix absolute (5863) D8.4D1.XXXX.63XX.XXXX	49.50
Sendix absolute (5868) D8.4D1.XXXX.68XX.XXXX	76.00

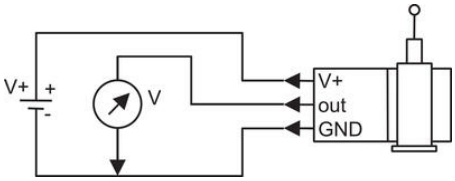


Dimension C depends on the encoder used	
Encoder	C
Sendix incremental(5000)(58.4D1.XXXX.6XXX.XXXX)	37.00
Sendix absolute (5863) (58.4D1.XXXX.63XX.XXXX	49.50
Sendix absolute (5868) (58.4D1.XXXX.68XX.XXXX	76.00

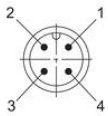
Measuring range	A - Wire rolled up	B - Wire pulled out
25 m	56 mm	18 mm
30 m	63 mm	18 mm
35 m	71 mm	18 mm
40 m	78mm	18 mm
42.5 m	82 mm	18 mm

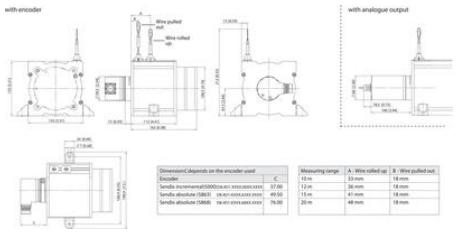






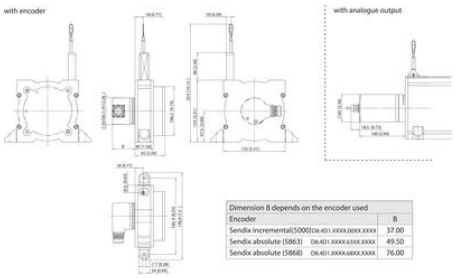
Pin	1	2	3	4
Cable colour	brown	white	blue	black
0 ... 10V	V+	Signal	GND	GND Sig.
4 ... 20 mA	V+	n. c.	Signal	n. c.
1 kOhm	V+	Slider	GND	n. c.



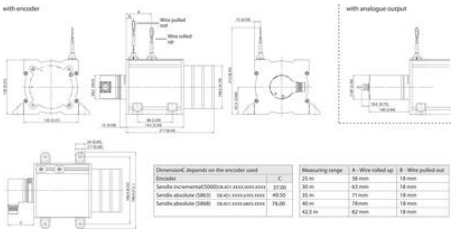


Dimension C depends on the encoder used	
Encoder	C
Sendix incremental(5000)(58.4D1.XXXX.6XXX.XXXX)	37.00
Sendix absolute (5863) (58.4D1.XXXX.63XX.XXXX	49.50
Sendix absolute (5868) (58.4D1.XXXX.68XX.XXXX	76.00

Measuring range	A - Wire rolled up	B - Wire pulled out
10 m	33 mm	18 mm
12 m	36 mm	18 mm
15 m	41 mm	18 mm
20 m	48 mm	18 mm

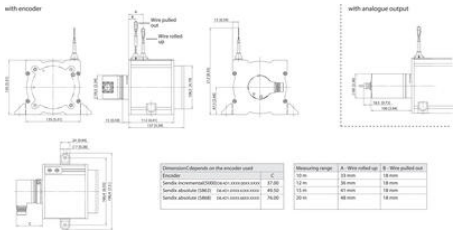


Dimension B depends on the encoder used	
Encoder	B
Sendix incremental(5000)(58.4D1.XXXX.68XX.XXXX	37.00
Sendix absolute (5863) (58.4D1.XXXX.63XX.XXXX	49.50
Sendix absolute (5868) (58.4D1.XXXX.68XX.XXXX	76.00



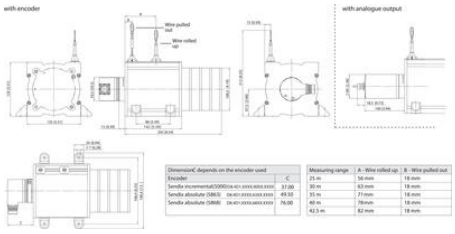
Dimension C depends on the encoder used	
Encoder	C
Sendix incremental(5000)(58.4D1.XXXX.6XXX.XXXX)	37.00
Sendix absolute (5863) (58.4D1.XXXX.63XX.XXXX	49.50
Sendix absolute (5868) (58.4D1.XXXX.68XX.XXXX	76.00

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Dimension C depends on the encoder used	
Encoder	C
Sendix incremental(5000)(58.4D1.XXXX.6XXX.XXXX)	37.00
Sendix absolute (5863) (58.4D1.XXXX.63XX.XXXX	49.50
Sendix absolute (5868) (58.4D1.XXXX.68XX.XXXX	76.00

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