Draw wire mechanics with encoder | **Draw wire encoder C105** | **Measuring length max. 6 m**
Traverse speed max. 3 m/s

The draw wire encoder C105 can be combined with all encoders having a size 58 synchro flange and 6 mm shaft.

Kübler's encoders portfolio offers the suitable Sendix encoder for every application.

SSI · PROFIBUS · PROFINET · EtherCAT Conformance tested · RoHS · Analog output · CANopen · EtherNet/IP

Flexible and simple

- Possibility for user to exchange encoder.
- Measuring lengths 2800 mm or 6000 mm.
- Simple installation.
- Scalable analog output with limit switch function.

Order code with encoder (incremental, absolute)

D8.1	XXX	.	XX	X	X	.	XXXX
Type	a		b	c	d		e

Standard variants are represented **bold underlined**

a *Measuring range*
106 = 6000 mm
2A1 = 2800 mm

b *Encoder used*
2Z = 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

c *Output circuit*
depends on the encoder used

d *Type of connection*
depends on the encoder used

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

Standard resolutions for draw wire with incremental encoder			
Drum circumference [mm]	200	200	200
Pulses / revolution [ppr]	200	2000	4000
Pulses / mm	1	10	20
Resolution [mm]	1	0.1	0.05

Standard resolutions for draw wire with absolute encoder Sendix M5863 (12 bit ST) or M5868 (12 bit ST, programmable via bus)	
Drum circumference [mm]	200
Pulses / revolution [ppr]	4096
Pulses / mm	20.5
Resolution [mm]	0.05

Recommended standard variants (with incremental, absolute encoder)

Order no. draw wire encoder	Mounted encoder	Interface	Power supply	Type of connection	Resolution / Protocol	Option
D8.1xxx.2Z54.2000	Sendix 5000 (8.5000.B154.2000)	Push-pull with inverted signal	10 ... 30 V DC	1 x radial M12 connector	2000 ppr	-
D8.1xxx.M324.G222	Sendix M5863 (8.M5863.4124.G222)	SSI	10 ... 30 V DC	radial M12 connector	4096 ppr / SSI-Gray-Code	-
D8.1xxx.M824.2122	Sendix M5868 (8.M5868.4124.2122)	CANopen	10 ... 30 V DC	radial M12 connector	CANopen encoderprofil DS406 V4.0	-

Other variants (with absolute encoder)

Order no. draw wire encoder	Mounted encoder	Interface	Power supply	Type of connection	Resolution / Protocol	Option
D8.1xxx.F324.G223	Sendix F5863 (8.F5863.2126.G223)	SSI	10 ... 30 V DC	1 x radial M12 connector	4096 ppr / SSI-Gray-Code	SET button + status LED
D8.1xxx.6324.G223	Sendix 5863 (8.5863.2126.G223)	SSI	10 ... 30 V DC	1 x radial M12 connector	4096 ppr / SSI-Gray-Code	SET button + status LED
D8.1xxx.F82E.2123	Sendix F5868 (8.F5868.212E.2123)	CANopen	10 ... 30 V DC	1 x radial M12 connector	CANopen encoder profile DS406 V3.2	SET button
D8.1xxx.6822.2123	Sendix 5868 (8.5868.2122.2123)	CANopen	10 ... 30 V DC	2 x radial M12 connector	CANopen encoder profile DS406 V3.2	SET button
D8.1xxx.6832.3113	Sendix 5868 (8.5868.2132.3113)	PROFIBUS	10 ... 30 V DC	3 x radial M12 connector	Profibus-DP V0 encoder profile Class 2	SET button
D8.1xxx.68B2.B212	Sendix 5868 (8.5868.21B2.B212)	EtherCAT	10 ... 30 V DC	3 x radial M12 connector	EtherCAT with CoE 3.2.10	-
D8.1xxx.68C2.C212	Sendix 5868 (8.5868.21C2.C212)	PROFINET IO	10 ... 30 V DC	3 x radial M12 connector	PROFINET encoder profile version 4.1	-
D8.1xxx.F8AN.A222	Sendix F5868 (8.F5868.21AN.A222)	EtherNet/IP	10 ... 30 V DC	3 x axial M12 connector	EtherNet/IP	-

Draw wire mechanics with encoder

Draw wire encoder C105

Measuring length max. 6 m
Traverse speed max. 3 m/s

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

D8.1	XXX	.	M1	X	X	.	XXXX
Type	a		b	c	d		e

Standard variants are represented **bold underlined**

a *Measuring range*
106 = 6000 mm
2A1 = 2800 mm

b *Encoder used*
M1 = Sendix M5861, absolute

c *Output circuit*
depends on the encoder used

d *Type of connection*
depends on the encoder used

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

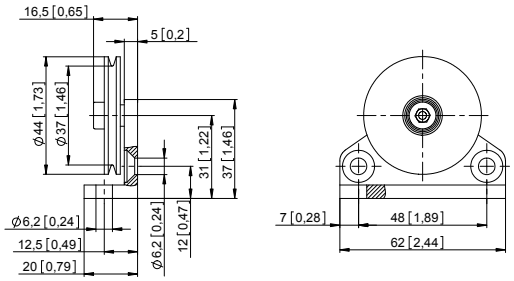
Recommended standard variants (with encoder analog, scalable with limit switch function)

Order no. draw wire encoder	Mounted encoder	Interface	Power supply	Type of connection	Resolution / Protocol	Option
D8.1xxx.M134.3312	Sendix M5861 (8.M5861.4134.3312)	Analog, 4 … 20 mA	10 ... 30 V DC	radial M12 connector	12 Bit / 4 … 20 mA	scalable with limit switch function [1]
D8.1xxx.M144.4312	Sendix M5861 (8.M5861.4144.4312)	Analog, 0 … 10 V	15 ... 30 V DC	radial M12 connector	12 Bit / 0 … 10 V	scalable with limit switch function [1]
D8.1xxx.M134.3412	Sendix M5861 (8.M5861.4134.3412)	Analog, 4 … 20 mA	10 ... 30 V DC	radial M12 connector	12 Bit / 4 … 20 mA	scalable without limit switch function [1]
D8.1xxx.M144.4412	Sendix M5861 (8.M5861.4144.4412)	Analog, 0 … 10 V	15 ... 30 V DC	radial M12 connector	12 Bit / 0 … 10 V	scalable without limit switch function [1]

Accessories for draw wire encoder

Order no.

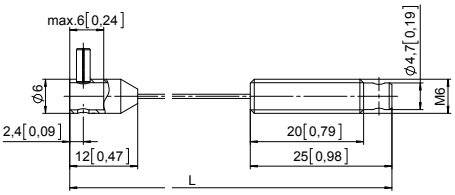
Guide pulley



Order code for the set:
- Guide pulley (anodized aluminum)
- 2 x countersunk screws for lateral fixing
- 2 x hexagonal screws for fixing on a flat surface

8.0000.7000.0045

Extension cable



Steel wire 2 m [6.56']	**8.0000.7000.0033**
Steel wire 5 m [16.40']	**8.0000.7000.0034**
Steel wire 10 m [32.81']	**8.0000.7000.0035**
Paraleine 2 m [6.56']	**8.0000.7000.0032**

Technical data

Mechanical characteristics

Measuring range		2800 mm / 6000 mm
Traversing speed		max. 3000 mm/s
Extension force F_{min}		8 N
Repeat accuracy		±0.15 mm
Working temperature		-20°C ... +80°C [-4°F ... +176°F]
Weight		approx. 700 g [24.69 oz]
Drum circumference		200 mm
Wire	2800 mm 6000 mm	paraleine– with ø 1.05 mm steel wire – with ø 0.54 mm

For the electrical characteristics as well as for the terminal assignment, please refer to the data sheet of the encoder used.

1) Delivery condition: unscaled.
Description for scaling and limit switch function see data sheet M5861.

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Dimensions

Dimensions in mm [inch]

Draw wire mechanics with encoder

Dimension B depends on the encoder used	
Encoder	**B**
Sendix incremental (5000) D8.1xxx.2Zxx.xxxx	37.0 [1.46]
Sendix absolute (F5863) D8.1xxx.F3xx.xxxx“	49.5 [1.95]
Sendix absolute (5863) D8.1xxx.63xx.xxxx	49.5 [1.95]
Sendix absolute (F5868, CANopen) D8.1xxx.F8xx.21xx	70.0 [2.76]
Sendix absolute (F5868, EtherNet/IP) D8.1xxx.F8xx.A2xx	59.5 [2.34]
Sendix absolute (F5868, EtherNet/IP) D8.1xxx.68xx.A2xx	77.2 [3.04]
Sendix absolute (F5868, EtherNet/IP) D8.1xxx.Mxxx.xxxx	49.8 [1.96]