

optical Encoder, digital outputs,
2 channels, 100 lines per revolution

**For combination with
DC-Micromotors**

Series PA2-100

		PA2-100	
Lines per revolution	N	100	
Frequency range, up to ¹⁾	f	35	kHz
Signal output, square wave		2	Channels
Supply voltage	U_{DD}	2,7 ... 3,3	V
Current consumption, typical ²⁾	I_{DD}	8	mA
Pulse width	P	180 ± 45	°e
Phase shift, channel A to B	Φ	90 ± 45	°e
Logic state width	S	90 ± 45	°e
Cycle	C	360 ± 30	°e
Signal rise/fall time, max. ($C_{LOAD} = 50$ pF)	tr/tf	0,1 / 0,1	µs
Inertia of code disc	J	0,02	gcm ²
Operating temperature range		-25 ... +85	°C

2) $U_{DD} = 3 \text{ V}$: with unloaded outputs

For combination with Motor

[illegible]

Characteristics	
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99	99.1
100	100.1

These incremental shaft encoders in combination with the DC-Micromotors are designed for both indication and control of both shaft velocity and direction of rotation as well as for positioning.

An all-in-one emitter and detector chip transmits and receives LED light reflected off a low inertia reflective disc providing two channels with 90° phase shift.

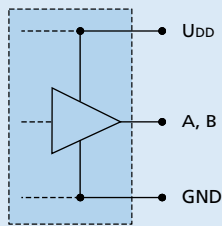
The supply voltage for the encoder and the Micromotor as well as the output signals are interfaced with a flexible printed circuit (FPC).

Details for the DC-Micromotors and suitable reduction gearheads are on separate catalog pages.

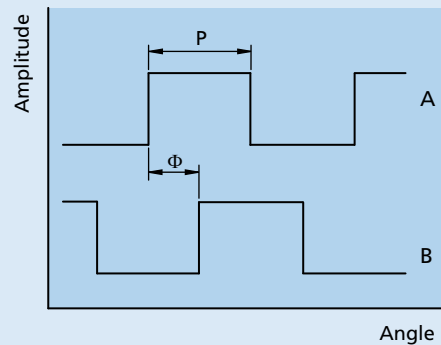
To view our large range of accessory parts, please refer to the "Accessories" chapter.

Circuit diagram / Output signals

Output circuit



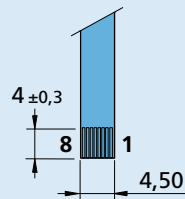
Output signals with clockwise rotation as seen from the shaft end



Connector information / Variants

No.	Function
1	Motor +
2	Motor +
3	UDD
4	Channel A
5	Channel B
6	GND
7	Motor -
8	Motor -

Connection Encoder



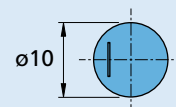
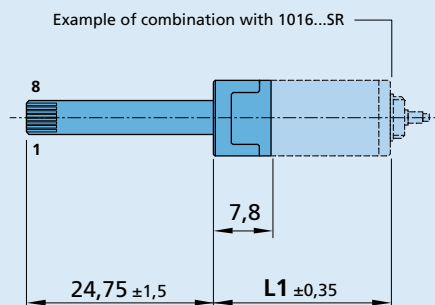
Recommended connector

Molex 52745
grid 0,5 mm
FPC / FFC, 8-conductors

Full product description

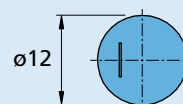
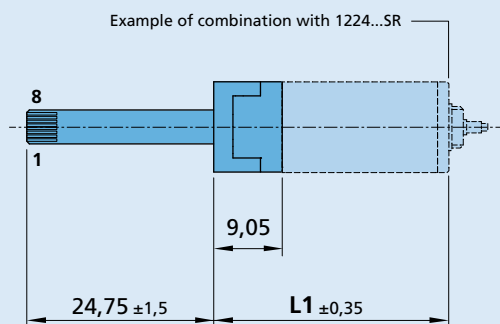
Examples:
1016N006SR-K2565 PA2-100
1224N012SR-K1752 PA2-100

Dimensional drawing A



PA2-100

Dimensional drawing B



PA2-100