

# Senergy

## IDC



## **24V motorised roller with integrated commutation electronics and I/O-Link interface.**

Based on proven and robust mechanical components, the Senergy-IDC opens up new control options that significantly expand the range of applications for motorised rollers.

By using the analogue 0-10V standard, the Senergy-IDC can be connected to a wide range of third-party controllers. In addition to analogue control, the Senergy-IDC offers complete I/O-Link integration.

This enables complex control with positioning function and precise drive diagnostics. The Senergy-IDC can be connected to any I/O-Link master via a special connection cable and can be controlled from there.



5-Pin standard connector



# General Technical Data

- **Voltage:** 24V DC
- **Nominal Output:** 38W
- **Protection Class:** IP54/IP66/IP 69K
- **Rated Current:** 2,4A
- **Starting Current:** 3,0A
- **Connection:** 5-Pin Connector
- **Ambient Temperature:** -10°C – +40°C
- **Ambient Humidity:** 10% – 90% (No Condensation)
- **Tube Material:** Zinc-plated steel, Stainless steel
- **Lagging Options:** Conical segments, Crowned tube, PVC, PU
- **Certifications:** UL, CE, UKCA, RoHS, REACH

## Static Load Capacity

Roller Length	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm
∅ 50mm	80 kg	70 kg	60 kg	55 kg	50 kg	45 kg	40 kg	35 kg

## Characteristics Data Senergy-IDC

Speed Code	Gearbox	Max. Speed m/s*	Rated Torque Nm	Acceleration Torque Nm
95	1-stage	2,23	0,4	0,75
60	2-stage	1,38	0,6	1,1
45		1,01	0,9	1,51
35		0,83	1,1	1,84
20	3-stage	0,46	2,0	3,03
15		0,34	2,7	4,15

\* Speed regulation according to input voltage shown on the page 26.

## Roller Weight Senergy-IDC in kg

Diameter	Speed Code	Roller Length (Weight varies depending on Interlocking Options)								
		300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm	1200mm
Ø 50mm	15, 20, 25	2,0	2,2	2,4	2,6	2,7	2,9	3,1	3,3	3,7
	35, 45, 60, 75	2	2,1	2,3	2,5	2,7	2,9	3,1	3,2	3,6
	95	1,8	2	2,2	2,3	2,5	2,7	2,9	3	3,2

\* Varies depending on the respective head version spring axle / internal thread; Special versions on request

Weight in kg

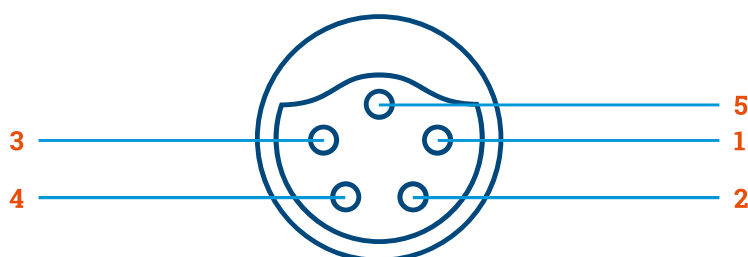
## Min. Roller Length Senergy-IDC

Diameter	Speed Code	Interlocking Options			
		Plain Straight (without Head)*	PolyV Head*	1 or 2 Groove Tube*	Roundbelt Head*
Ø 50mm	15, 20	295	319	335	303
	35, 45, 60	272	296	312	289
	95	244	268	285	253

\* Varies depending on the respective head version spring axle / internal thread; Special versions on request

Length in mm

## Senergy-IDC connector pinout

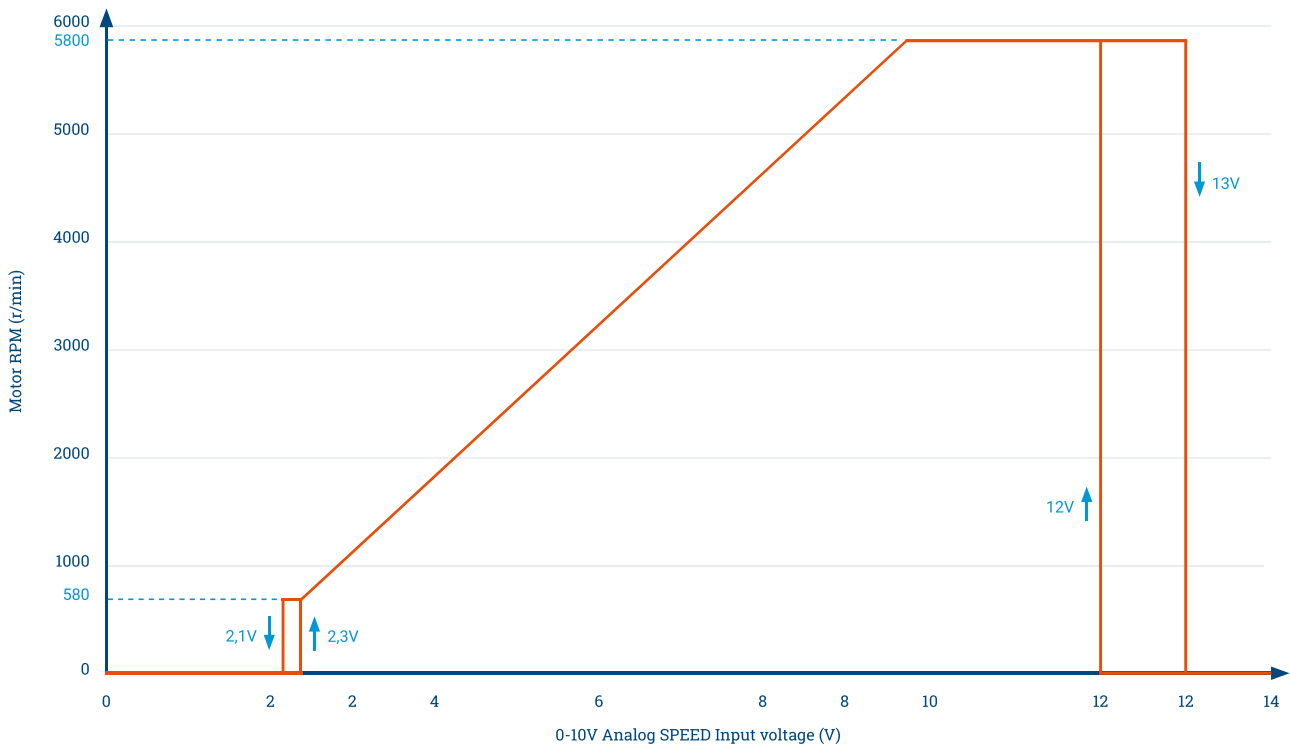


Pin	Function	Value
1	Power supply input (+)	Rated voltage: 24V DC Voltage range: 18V to 28V DC
2	Direction of rotation, seen from the cable end of SENERGY-IDC	< 4.5 V = Counter clockwise > 6.5 V = Clockwise
3	Earth for power supply and signal (-)	Ground
4	Error output	Open Collector Error = High Signal No error = Low Signal
5	Speed input voltage	See table and chart on next page

# Speed input voltage versus motor RPM Data

Input Voltage (V)	Motor RPM (rpm)
13~	0
10 ~ 12	5800
9.5	5800
9.3	5655
9.1	5510
8.9	5365
8.7	5220
8.5	5075
8.3	4930
8.1	4785
7.9	4640
7.7	4495
7.5	4350
7.3	4205
7.1	4060
6.9	3915
6.7	3770
6.5	3625
6.3	3480
6.1	3335

Input Voltage (V)	Motor RPM (rpm)
5.9	3190
5.7	3045
5.5	2900
5.3	2755
5.1	2610
4.9	2465
4.7	2320
4.5	2175
4.3	2030
4.1	1885
3.9	1740
3.7	1595
3.5	1450
3.3	1305
3.1	1160
2.9	1015
2.7	870
2.5	725
2.3	580
2 ~ 0	0



Speed Input Voltage	Target motor RPM
0 - 2.3V	0 [r/min] (Stop: Brake Mode)
2.3V - 9.5V	580 - 5800 [r/min] (Linear resolution)
9.5V - 13V	5800 [r/min] (Max. Speed)