

CROUZET - BLDC WORM GEARED MOTOR WITH INTEGRATED SMI21 DRIVE

801410XX SMI21

Worm gearmotor 92W 12→48Vdc 78→780rpm 10Nm max

- 12→48 V dc, 92→170 W, 57→780 rpm, 10 Nm max
- Speed, torque & position control
- Reduce control panel space & cabling
- Long life (>20,000 hours)
- IP65 as standard



PRODUCT DESCRIPTION

The SMI21 integrated drive is ideal for applications where speed, torque & positional control is required.

The motor also incorporates a high resolution 4096ppr incremental encoder ideal for precise positioning applications.

Motion programming, configuring & set-up performed through the dedicated user friendly DCmind-soft PC software. The program can be controlled via basic switches or by external PLC.

The long lifetime of the brushless motor (>20,000 hours with rated load) means it is ideal for continuous or long duty applications.

Having the drive integrated into the motor can also save control panel space, reduce cabling and save set-up time.

3 motor sizes available with the same diameter (57mm x 57mm), with increasing motor lengths for more power/torque.

Planetary & worm gearbox options available for reducing the speed & increasing the output torque.

The motors are rated to IP65 dust/water protection class as standard.

Options for adaptation to the standard motor include adding a holding brake, special output shaft, special connectors, upgraded IP protection & special firmware developed according to your specific application requirements.

* Product datasheets & 3D drawing for standard IP65 cable version attached as an example. Further information for braked version available upon request. Full documentation & user manuals also available upon request.

TECHNICAL DATA

Integrated control	SMi21
IP class	IP65
Length	194 mm
Life span	20,000h
Max. torque	10 Nm
Number of pulses per revolution	4096
Positioning feedback	Yes
Power	92 W
Ratio	i=5→50:1

Shaft diameter	10 mm
Speed options	78rpm→780rpm
Supply voltage	12 V DC, 24 V DC, 48 V DC
Type of gearbox	Worm
Weight	1,87 kg

GEARBOXES FOR DCmind BRUSHLESS RANGE

4 to 120 Nm

- Planetary and worm gearboxes
- Shafts on ball bearings
- Long service life
- IP65



Part numbers

Gearbox	Planetary 2:1	Planetary 3:1	Planetary 10:1	Worm
Type	P10495	P10496	P10497	P10498
Output speed	3000rpm/780rpm	3000rpm/780rpm	3000rpm/780rpm	3000rpm/780rpm
Rated torque	4-120 Nm	4-120 Nm	4-120 Nm	4-120 Nm
Rated speed	3000 rpm	3000 rpm	3000 rpm	3000 rpm
Rated current	0.8-1.6 A	0.8-1.6 A	0.8-1.6 A	0.8-1.6 A
Rated power	12-120 W	12-120 W	12-120 W	12-120 W
Weight	0.8-1.8 kg	0.8-1.8 kg	0.8-1.8 kg	0.8-1.8 kg
Dimensions	40-100 mm	40-100 mm	40-100 mm	40-100 mm

Other ratios possible

11 - 100

© 2019 planetary gearboxes: helical gears on all stages. 45° apart from the output shaft.

© 2019 planetary gearboxes: On the first stage, the planet gears are made of composite materials which improve efficiency and service life. On the other stages, the metal gears form the main bearings. 90° apart from the output shaft.

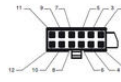
© 2019 planetary gearboxes: All gears are metal and turn on hardened bearings, resulting in excellent robustness and a very long service life. 90° apart from the output shaft.

Worm gearboxes: This gearbox combines a hardened steel worm and a hard bronze helical gear wheel, thus ensuring a long service life. The wheel is coated with grease, ensuring an excellent slip coefficient and good heat dissipation. Outlets and inlets are used in combination with a compression spring to create a tight seal at the gearbox output shaft and the motor input shaft. IP65 gearbox.

The casing is made of aluminum to maximize heat exchange with its supporting surface on the machine. However, due to the high gear load that can be transmitted by this gearbox and the low efficiency inherent in large worm gearbox reduction ratios, make sure that the gearbox casing temperature does not exceed 70°C during operation. The output shaft can be placed on the right or left, or can be a double shaft (output on both sides).

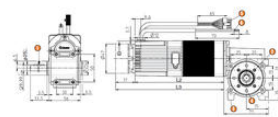
Connection

Connector (Molex 0430251200)



Pin	Logic cable Description	Wires color	Power cable Description	Wires color
1	Input 1 - logic	Green	+12 V... → 48 V...	Brown
2	Input 2 - logic	Yellow	D.V...	Blue
3	Input 3 - logic	White		
4	Input 4 - logic	White-brown		
5	Input 5 - analog	Blue		
6	Input 6 - analog	Orange		
7	D.V...	Black		
8	D.V...	White-black		
9	Output 1 - PWM	Brown		
10	Output 2 - PWM	Purple		
11	Output 3 - logic	Red		
12	Output 4 - logic	Grey		

801410 - 801810 - 802010 - SM21 + RAD10 with or without brake



- L2: 80140: 120 max.
- L2: 80180: 80mm, 140 max.
- L3: 80140: 154 max.
- L3: 80180 - 80200: 174 max.
- ⊙ Parallel key 4 x 4 x 20 DIN 6885 A
- ⊙ A: M6, depth 6 mm Ø 36
- ⊙ A: M5, depth 8
- ⊙ A: Ø 36, depth 15 mm Ø 40
- ⊙ Command cable 12 x AWG20 / 500 mm
- ⊙ Power cable 2 x AWG16 / 500 mm