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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: [info@chipsmall.com](mailto:info@chipsmall.com) Web: [www.chipsmall.com](http://www.chipsmall.com)

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





## 80 W motors with built-in electronic control TNi20 801800 - 0/10 V Part number 80180002



Ideal for motion and positioning applications

- **Flexible** : 4-quadrant variable speed control
- Control of max. torque with "limit reached" indicator
- **Complete** : Brake, encoder and class B EMC-compliant
- **Compact** : Excellent efficiency and high start torque
- 120 W nominal at 32 V DC
- **Open** : Compatible with our logic controller PLCs
- **Versatile** : Compatible with 24 V battery DC

### Part numbers

	Type	Speed control	References
80180002	801800 - 0/10 V	0-10 V	Without option

### Specifications

Supply voltage (V)	24 (18 →37)
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#### No-load characteristics

Speed of rotation (rpm)	4200
Absorbed current (A)	0,4

#### Nominal characteristics

Speed (rpm)	3250
Torque (mNm)	240
Absorbed current (A)	4,8

#### Maximum characteristics

Start torque (mNm)	300
Starting current (A)	6,0

#### General characteristics

Conformity to EMC Directive in accordance with (EN 55022)	B
Insulation class (conforming to IEC 85)	B (120 °C)
Casing temperature rise at 40 °C ambient max. (°C)	20
Thermal time constant (mn)	15
Inertia (g.cm <sup>2</sup> )	105
Acoustic pressure at 50 cm (dBA)	50
Service life L10 (h)	20000
Weight (g)	1400
Protection index	IP54

#### 0-10 V speed input characteristics

Input impedance (kΩ)	440
Full scale speed (rpm)	4200

#### PWM speed input characteristics

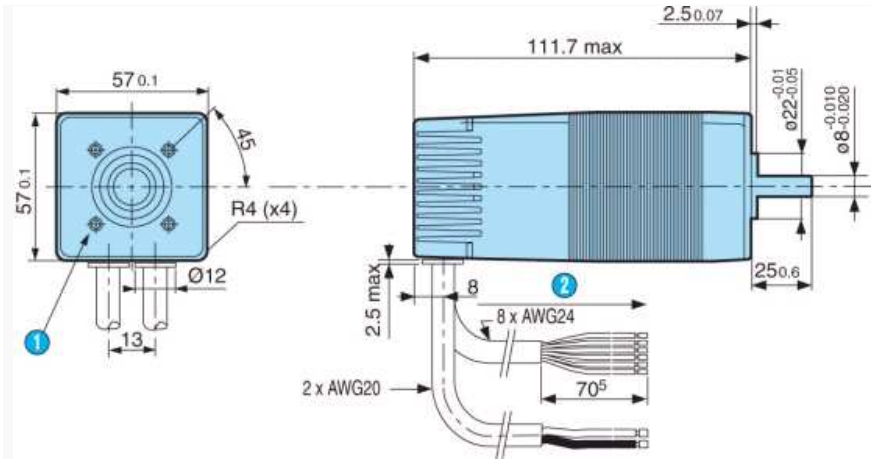
Input impedance (kΩ)	-
Level 0 input voltage (VDC)	-
Level 1 input voltage (V)	-
Frequency range (Hz)	-
Full scale speed (rpm)	-

#### Relay output characteristics

Type of output	PNP
Max. current (mA)	50

### Dimensions (mm)

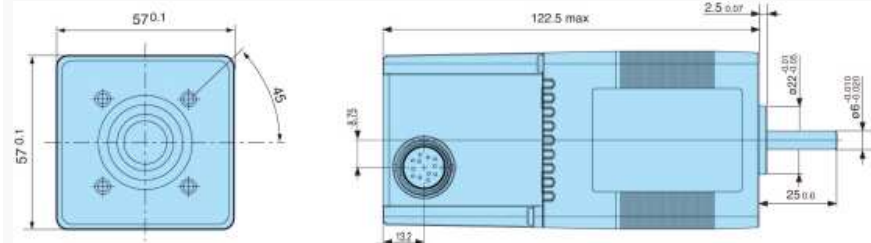
80180002 : TNi20 cable output



N°	Legend
1	4 holes M5 x 0.86 H at 90° over Ø 40 depth of thread 4.5 min.
2	Cable length : 500 ± 15 mm

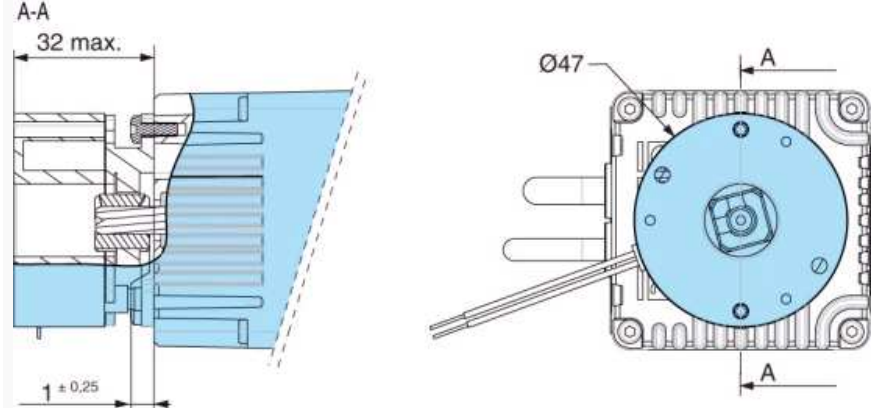
Dimensions (mm)

80180026 : With C12 integrated connector



Dimensions (mm)

80180025 : With holding brake

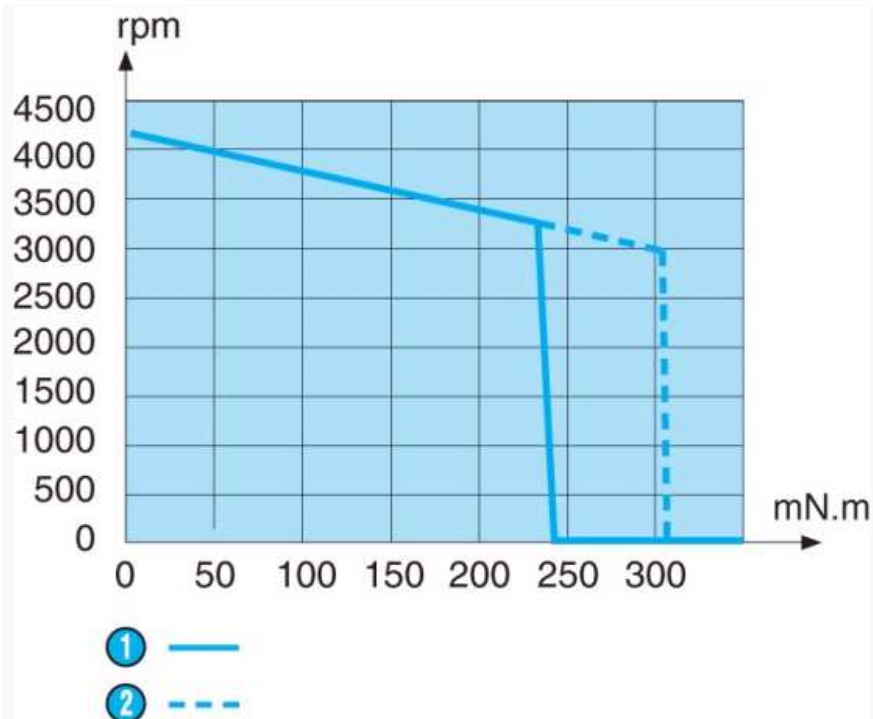


Holding brake : At power switch off - 0.5 Nm - 7 W - 24 V ± 10% Weight : 250 g - AWG26 leads - 400 mm

Curves

Speed/torque

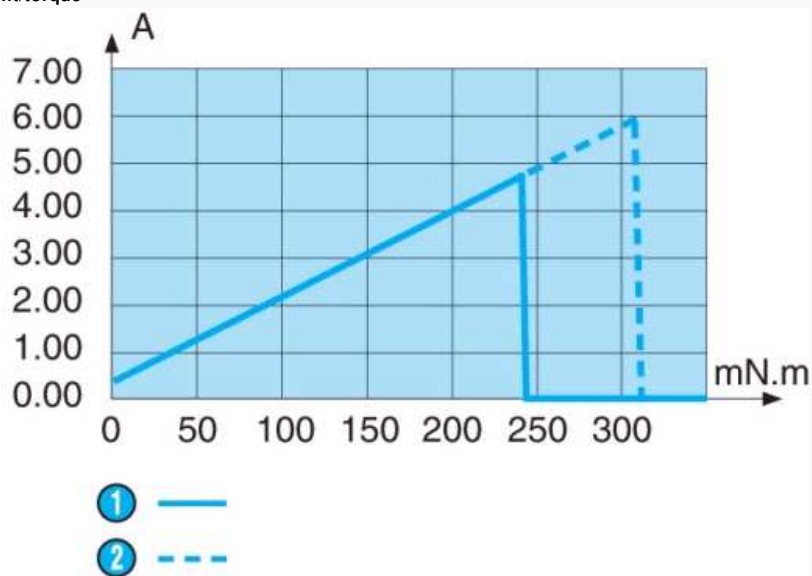




N°	Legend
1	Continuous operation
2	Cyclic operation

### Curves

Current/torque



N°	Legend
1	Continuous operation
2	Cyclic operation

### Connections

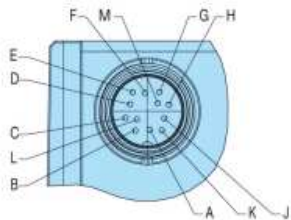
Cable output

Marking on motor	Function	Wire colour	
*a	Power ground supply	Black	1 power cable AWG20
*a	24 V power supply	Brown	2 conductors UL2464
	Signal ground	Black	
	On/off input	Green	
	Direction input	Yellow	
	Speed setpoint	Orange	1 control cable AWG24
*b	12 points/rev encoder output	Brown	8 conductors UL2464
*b	Encoder direction output	Red	
	Torque limiting setpoint	Blue	
*b	Torque saturation output	Purple	

## Connections

### With integrated C12 connector

Légende	Connecteur C12
Masse puissance	G+M
Alimentation 24 V puissance	E+F
Masse signaux	B
Entrée Marche/Arrêt	K
Entrée sens	J
Consigne vitesse	C
Sortie codeurs 12 points/tour	D
Sortie sens codeur	L
Consigne limitation de couple	A
Sortie saturation de couple	H



## Precautions for use

### Necessary precautions to avoid damaging the motor

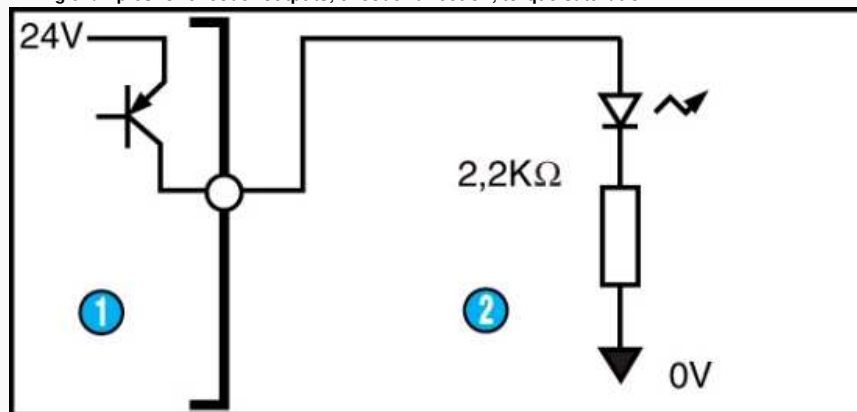
\*a) Do not reverse the polarity

\*b) Do not short-circuit the encoder output, encoder direction and torque saturation (PNP) to earth

Do not use the motor as a generator

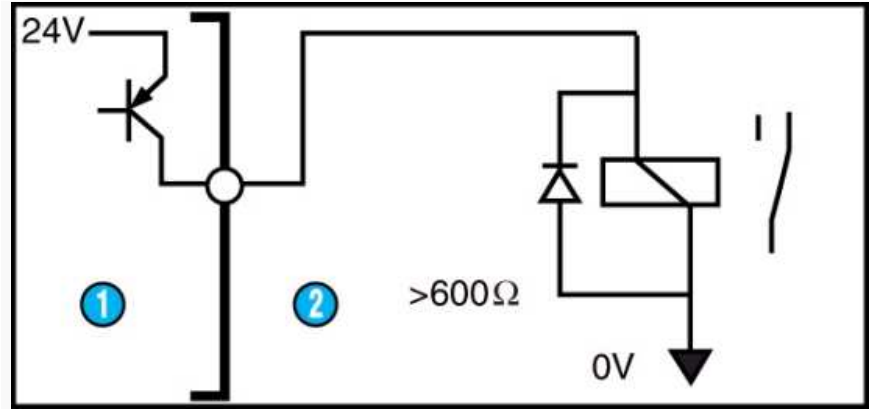
## Applications

### Wiring examples for encoder outputs, encoder direction, torque saturation



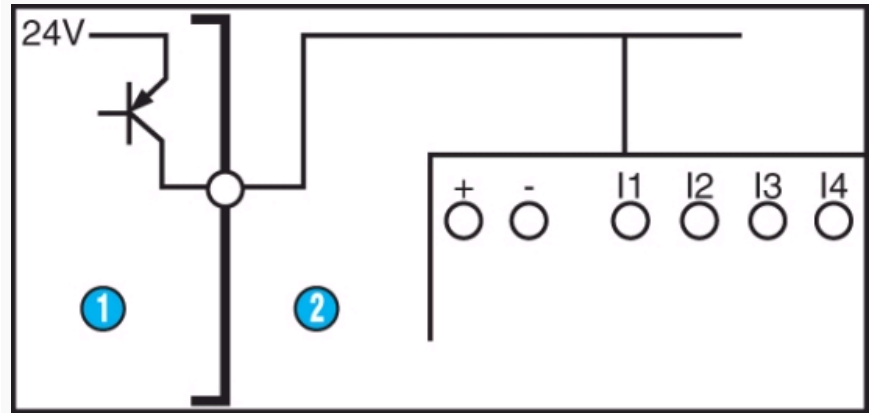
N°	Legend
1	Motor
2	LED load

## Applications



N°	Legend
1	Motor
2	Relay load

Applications



N°	Legend
1	Motor
2	Millenium logic controller

Product adaptations

- 2-quadrant speed regulation, open or closed loop
- Dimensions of motor shaft ( $\varnothing$  2 to 8 mm, length, pinion sized to shaft, etc.)
- Cable length, with or without connector
- Special software and extensions