

### 37 W motors with built-in electronic control TNi20 801400 - PWM Part number 80140031



- Speed and torque control
- Gentle, non-regenerative braking
- Class B EMC-compliant
- Compatible with PLCs

#### Part numbers

	Type	Speed control	References
80140031	801400 - PWM	PWM	Cable output

#### Specifications

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

Speed of rotation (rpm)	2900
Absorbed current (A)	0,2

#### Nominal characteristics

Speed (rpm)	2230
Torque (mNm)	160
Absorbed current (A)	2,15

#### Maximum characteristics

Start torque (mNm)	220
Starting current (A)	3,0

#### General characteristics

Speed regulation	4
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)	15
Thermal time constant (mn)	15
Inertia (g.cm <sup>2</sup> )	50
Acoustic pressure at 50 cm (dBA)	40
Service life L10 (h)	20000
Protection index	IP54
Weight (g)	800

#### 0-10 V speed input characteristics

Input impedance (kΩ)	-
Full scale speed (rpm)	-

#### PWM speed input characteristics

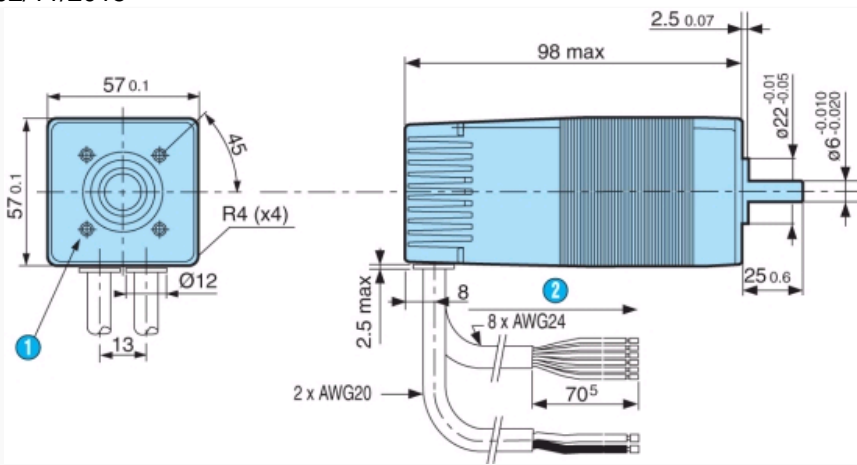
Input impedance (kΩ)	19
Level 0 input voltage (VDC)	< 2,5
Level 1 input voltage (V)	> 11,5
Frequency range (Hz)	150 →1000
Full scale speed (rpm)	4200

#### Relay output characteristics

Type of output	PNP
Max. current (mA)	50

#### Dimensions (mm)

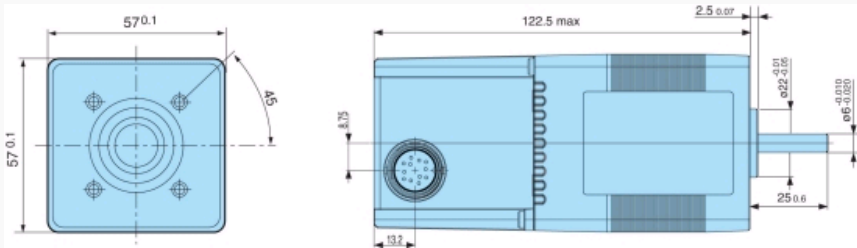
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N°	Legend
1	4 holes M5 x 0.86 H at 90° over Ø 40 depth of thread 4.5 min.
2	Cable length : 500 ± 15 mm

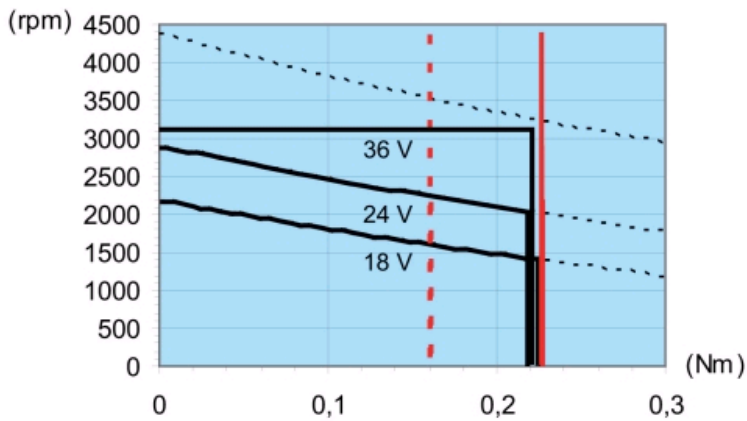
**Dimensions (mm)**

80140024-80140026



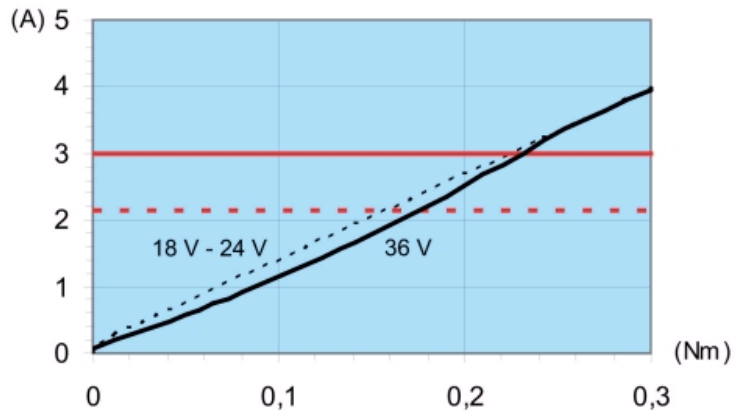
**Curves**

Speed/torque



**Curves**

Current/torque



### Connections

80140031-80140032

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

80140024-80140026

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

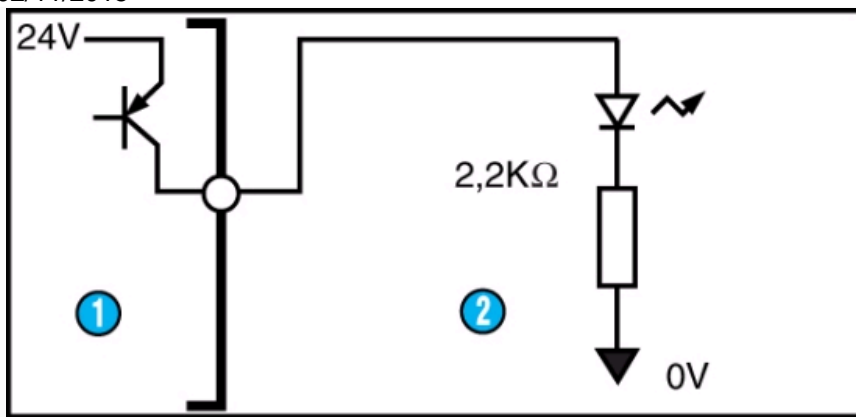
### Precautions for use

#### Necessary precautions to avoid damaging the motor

- \*a) Do not reverse the polarity
  - \*b) Do not short-circuit the encoder output (NPN) at the power supply
- Do not use the motor as a generator

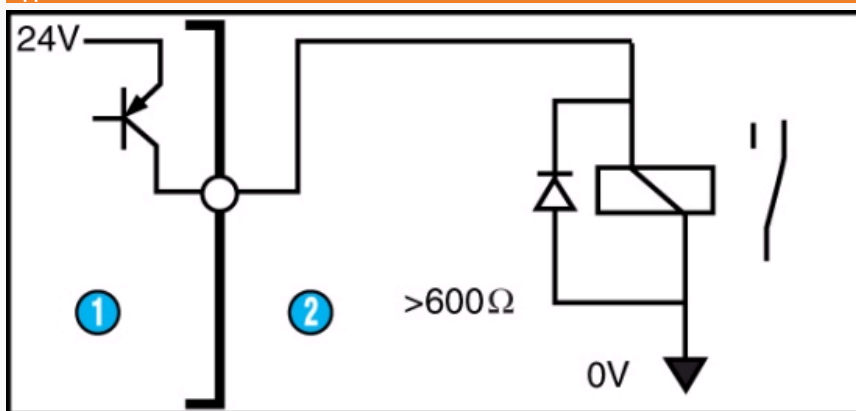
### Applications

Wiring examples for encoder outputs, encoder direction, torque saturation



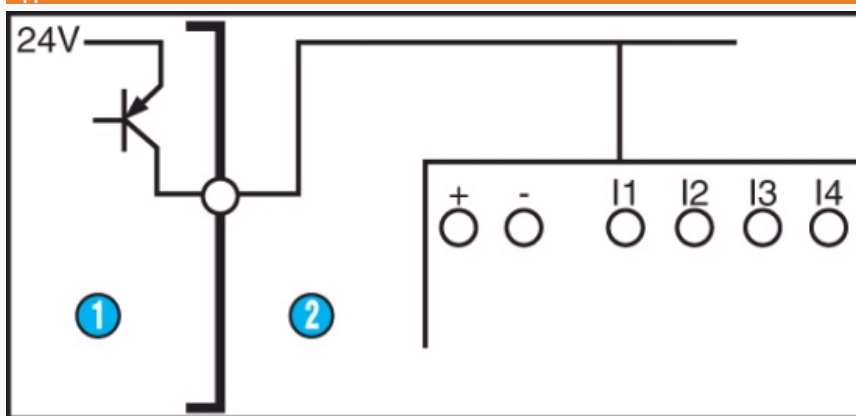
N°	Legend
1	Motor
2	LED load

Applications



N°	Legend
1	Motor
2	Relay load

Applications



N°	Legend
1	Motor
2	Millenium logic controller

**Product adaptations**

- Other characteristics (48 W nominal at 3200 rpm or 75 W nominal at 4700 rpm)
- Shaft diameter 8 mm