

80 W Motomate Motor direct drive Part number 80080005



- Movement control for simple mechanisms
- All-in-one solution for quick integration
- Compact with high performance
- Intuitive programming with graphical function blocks
- Adapted for severe environments
- 12 pulses per revolution of the motor
- Independant torque control
- Uses the functionalities of TNI20

Part numbers

Type	Ratio	Max. speed (rpm)	Available torque (Nm)
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Specifications

General characteristics

Supply voltage (V)	24 (20 →37)
Max. current (A)	6
Immunity from micro power cuts (ms)	1
Operating temperature (°C)	-20 →+40
Protection index	IP 54

Programming

Inputs / outputs	4I/4O
Programming method	Function blocks / SFC
Program size	128
Program memory	Flash EEPROM
Program cycle time (ms)	10
Real-time clock	No

Logic inputs

Max. number	4 (I1 →I4)
Input impedance (kΩ)	> 10
Logic 1 voltage threshold (V)	> 15
Logic 0 voltage threshold (V)	< 5
Response time (ms)	10

High speed inputs

Max. number	2 (I1 →I2)
Max. frequency (k Hz)	4

Analogue input

Max. number	2 (I3 →I4)
Measurement range	0-10 VDC
Resolution	8 bits
Accuracy	± 5 %

Logic outputs / PWM

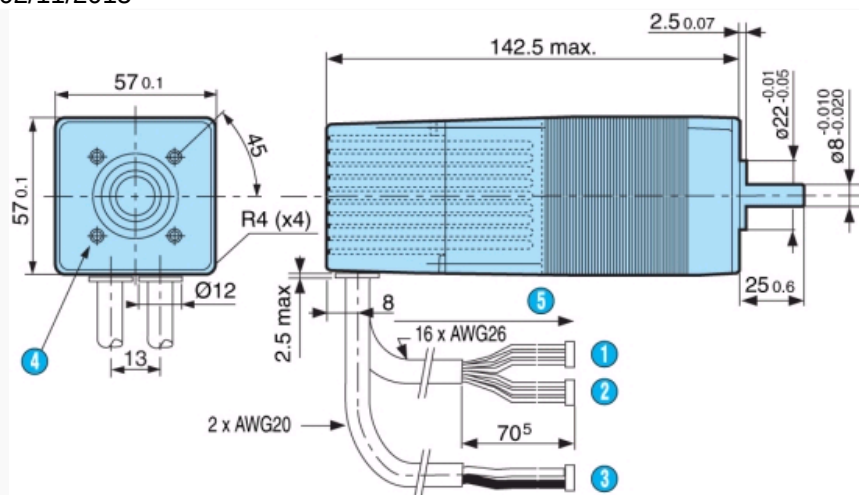
Max. number	4 (O1 →O4)
Type of output	PNP
Insulation	No
Max. current (mA)	250
Leakage current (mA)	< 0,1
Response time (ms)	10
PWM frequency (k Hz)	0.11 →1.8
PWM accuracy at 120 Hz	5 %

Accessories

Description	Code
Programming kit PC/Motomate - serial port	79 294 791
Programming kit PC/Motomate - USB	79 294 790
Programming software on CD ROM	79 294 792

Dimensions (mm)

Direct drive



N°	Legend
1	Connector 6 way : programming motomate
2	Connector 10 way : inputs/outputs motomate
3	Connector 2 way : power supply
4	4 holes M5 at 90° on Ø 40 depth 4,5 mini
5	Cable length : 500 ± 15 mm

Connections

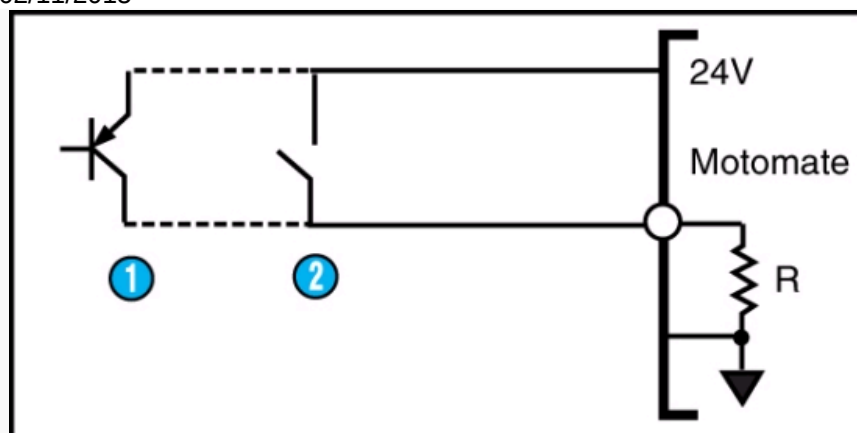
Comment	Legend	Pin N°	Wire color	Motomate connector	Application connector
*a	+24V	1	Brown	1 power connector Molex 2-way (Ref. 51144-0200)	PCB side top view Ref. 53520-0220
*a	GND	2	Black		
*b	IN1	1	Brown	1 I/O connector Molex 10-way 2.54 mm spacing (Ref. 90142-0010)	PCB side top view Ref. 90130-1110
	OUT1	2	Blue		
	IN2	3	Orange		
*b	OUT2	4	Purple		
	IN3	5	Yellow		
*b	OUT3	6	Grey		
	IN4	7	Green		
*b	OUT4	8	White		
*a	GND	9	Black	1 programming connector Molex 6-way 2.54 mm spacing (Ref. 90142-0006)	PCB side top view Ref. 90130-1106
*a	+24V	10	Red		
*a	+5V	1	White-Red		
*a	GND	2	White-Black		
	SCL	3	White-Yellow		
	SDA	4	White-Green		
	RX	5	White-Brown		
	TX	6	White-Orange		

User precautions

- *a) Never reverse the polarity of the supply
- *b) Do not short-circuit the outputs O1 to O4 to ground
- Do not use the motor as a generator
- For more details on the geared motors, consult the brushless catalogue

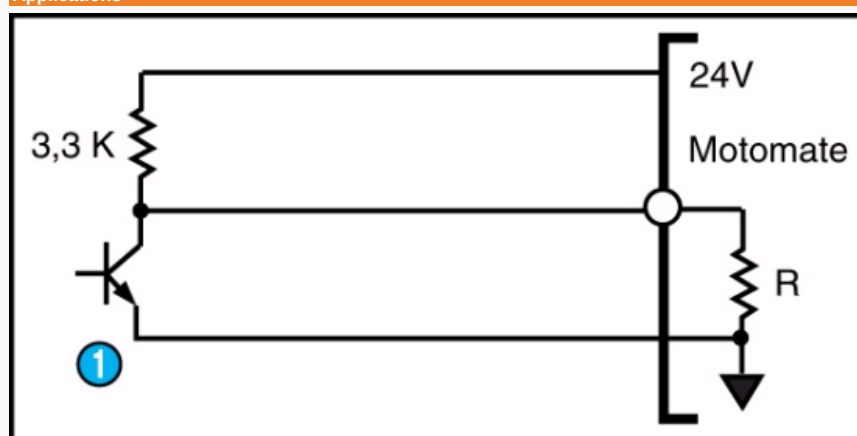
Applications

Examples of input connections



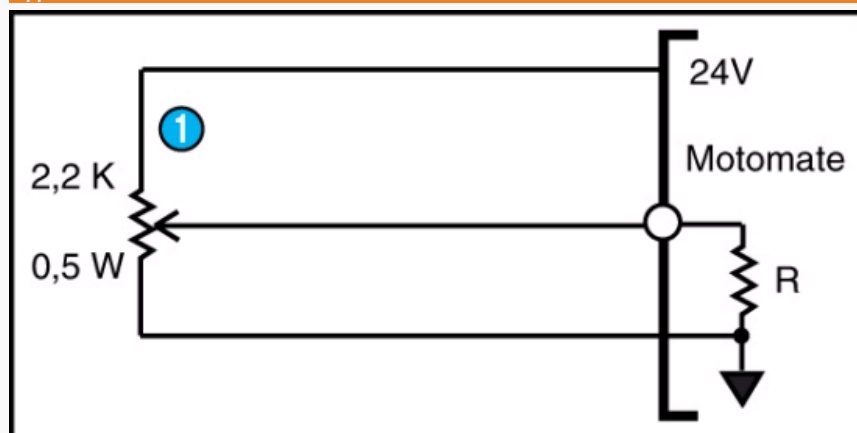
N°	Legend
1	Sensor output PNP
	or
2	Contact

Applications



N°	Legend
1	Sensor output NPN

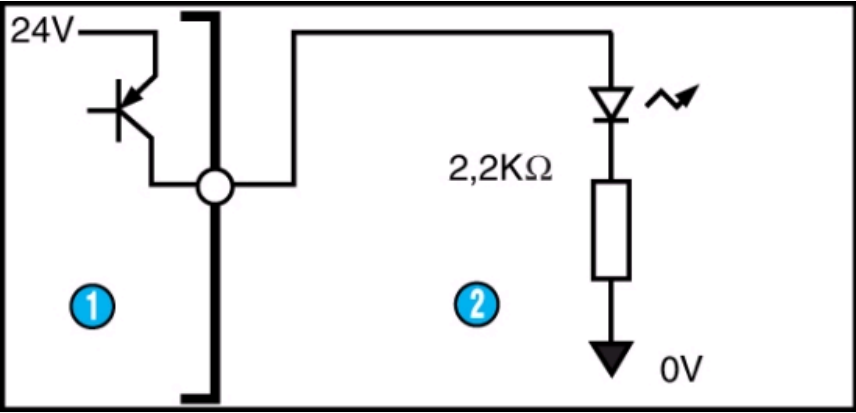
Applications



N°	Legend
1	Potentiometer

Applications

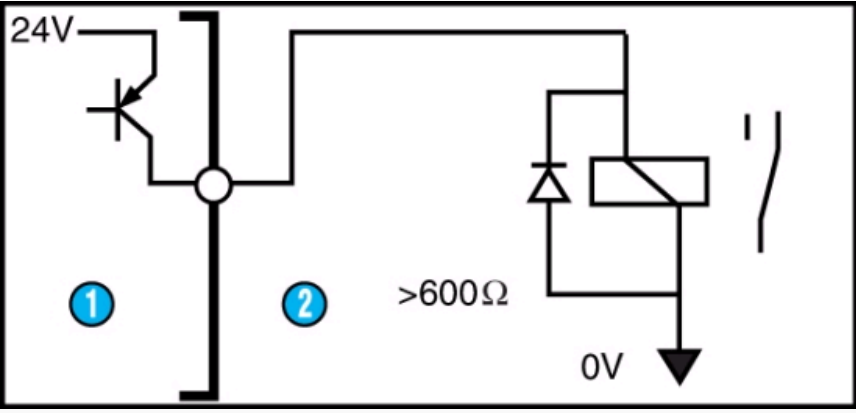
Example of output connections



The diagram shows a 24V supply connected to a transistor switch. The transistor's emitter is grounded, and its base is connected to a control line. The collector is connected to a load consisting of an LED in series with a 2,2KΩ resistor. The other end of the resistor is connected to ground (0V). A blue circle with the number 1 is placed near the transistor, and a blue circle with the number 2 is placed near the LED/resistor load.

N°	Legend
1	Motor
2	Load LED

Applications



The diagram shows a 24V supply connected to a transistor switch. The transistor's emitter is grounded, and its base is connected to a control line. The collector is connected to a load consisting of a relay coil in series with a diode (for flyback protection). The other end of the relay coil is connected to ground (0V). A blue circle with the number 1 is placed near the transistor, and a blue circle with the number 2 is placed near the relay coil. The text '>600Ω' is written near the relay coil.

N°	Legend
1	Motor
2	Load relay

- Product adaptations
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 - Special output shaft
 - Special supply voltage
 - Special cable length
 - Customised electronics
 - Special connectors
 - Special gear ratios
 - Special material for the gear wheels.
 - Special mounting platee
 - Customer programs installed at the factory

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Crouzet:

80080005