

Linear actuator with 'built-in' driver



Type : SB-8623 R002

8623R002

DATASHEET

Technical Specification for Linear Actuator 8623R002 with PWM Electronic

Operating Supply Voltage 9 to 16 VDC

Supply Current (Ubatt = 13.2 V) 380 mA (Linear actuator moving)
150 mA (Linear actuator standing)

PWM Signal Definition (see note 1)
Frequency 140 Hz \pm 5%
Intern pull-up resistor 1.0 k Ω (to Ubatt)
Input High voltage > 6.4V
Input Low voltage < 3.2 V
PWM \leq 3 % Full extended (Error, ready output low,
see note 2)
PWM > 3 to < 5 % 0 mm
PWM = 5 to 95 % 0 to 8.5 mm
PWM > 95 to \leq 97 % 8.5 mm
PWM > 97% to 100 % Full extended (Error, ready output low,
see note 2)

Output driver Bipolar half step (Currents are reduced to
1/2 when actuator
standing)

Linear Velocity
Ubatt > 12 V 8 mm/s
Ubatt \geq 9 V to 12 V 4 mm/s

Actuator Force > 15 N (Ubatt 9 to 16 V)
Temperature - 40°C to 100°C)

Ready output
Open collector I_{max} 20mA
High output voltage > 7 V for Ubatt =12V
Pull-down resistor External, min 1.2 k Ω

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Fault conditions

Ubatt < 8 V

(ready output low)

Full extended (Coils powered, return to position when supply voltage > 9V)

Ubatt < 7 V

Reset (brown-out) (Initialisation when supply voltage > 9V and return to position)

PWM short or open

Full extended 500 ms after error
(Return to position when PWM OK)

PWM frequency out of tol.

Full extended 500 ms after error
(Return to position when PWM OK)

Protection features

Wrong inputs connections

No defect

Jump start 28V 60s

No defect

Short of coils to ground

No defect (Ready output low, initialisation after 50 ms that short is released and return to position)

Operating Temperature

-40°C to 100°C Actuator

Notes

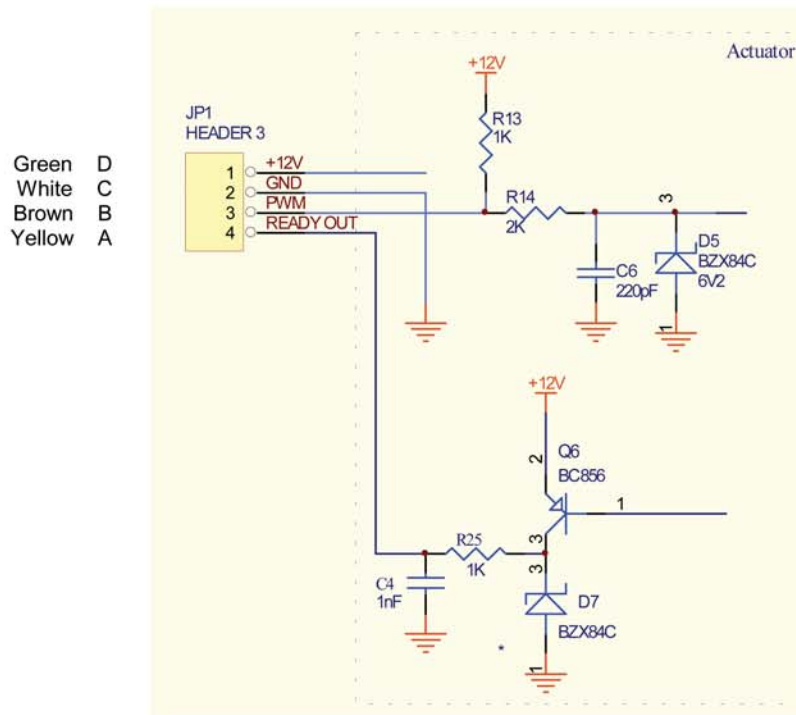
1) The PWM Signal in % is the ratio of the time duration between the negative and the positive slope and the time duration between 2 negative slopes

2) Ready output is turned low after 500ms.

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CONNECTION DIAGRAM

Connections :



ACP&D Limited
Units 6 & 9A,
Charlestown Industrial Estate,
Robinson Street,
Ashton-under-Lyne,
Lancashire, OL6 8NS.

Tel: +44 (0)161 343 1884
Fax: +44 (0)161 339 0650
e-mail: sales@acpd.co.uk
Websites: www.acpd.com &
www.acpd.co.uk

