



### MicroLength 196 Closed Loop Position/Length Controller



- Compatible with all variable-speed drives.
- Keypad/display menus and features.
- Setup, calibration and diagnostic utilities.
- 4 programmable set points.
- $\pm$  One pulse accuracy.
- 8-character display simplifies setup and operation.
- Switch-input functions.
- NPN-output functions.
- Serial communications/Modbus.

## Product Information

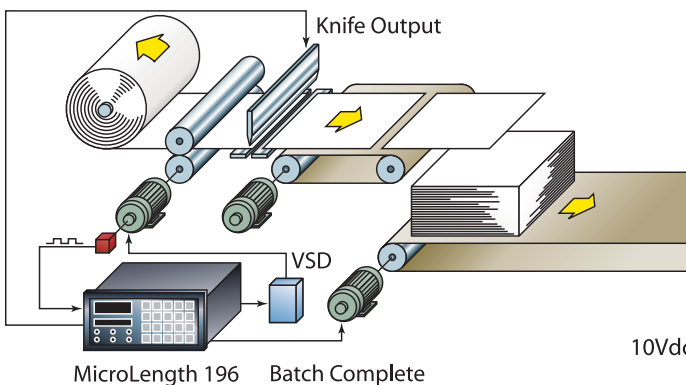
### Description

The ML196 is a closed-loop position/length controller. Common applications include: cut to length; feed to stop systems; stamping operations; wind and unwind systems; filling equipment; positioning systems and material feed applications. The ML196 accepts single channel encoder signals and also provides the encoder power, which makes it ideal for new or existing systems. The ML196 supplies an isolated  $0 \pm 10$  Vdc speed reference signal to the drive, making it compatible with virtually any variable speed drive (AC, DC, or servo). Flexible inputs and outputs offer complete machine control without the necessity of a complicated PLC interface. An 8-character alphanumeric display provides the operator with "plain English" prompts, to make programming simple and user friendly.

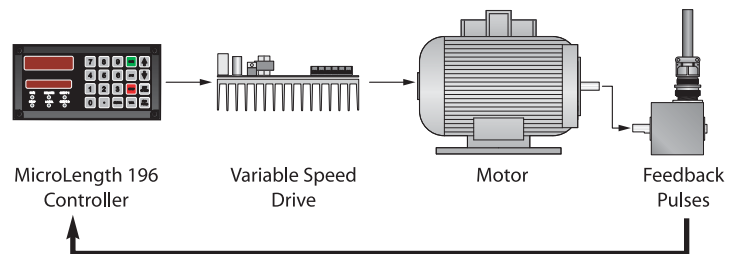
Advanced software techniques, plus high accuracy and reliability, make this controller the choice of automation specialists worldwide.

### Application Diagrams • ML196

#### Batch Cut -To-Length

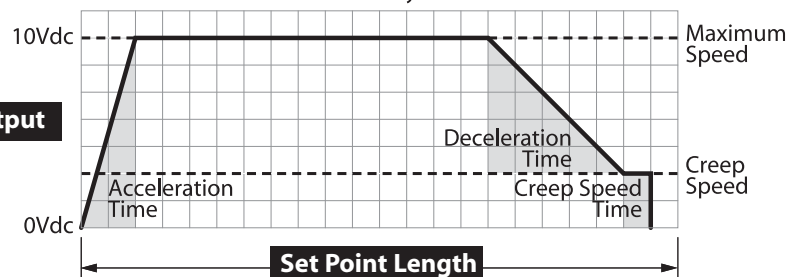


#### Block Diagram:



#### Cycle Profile:

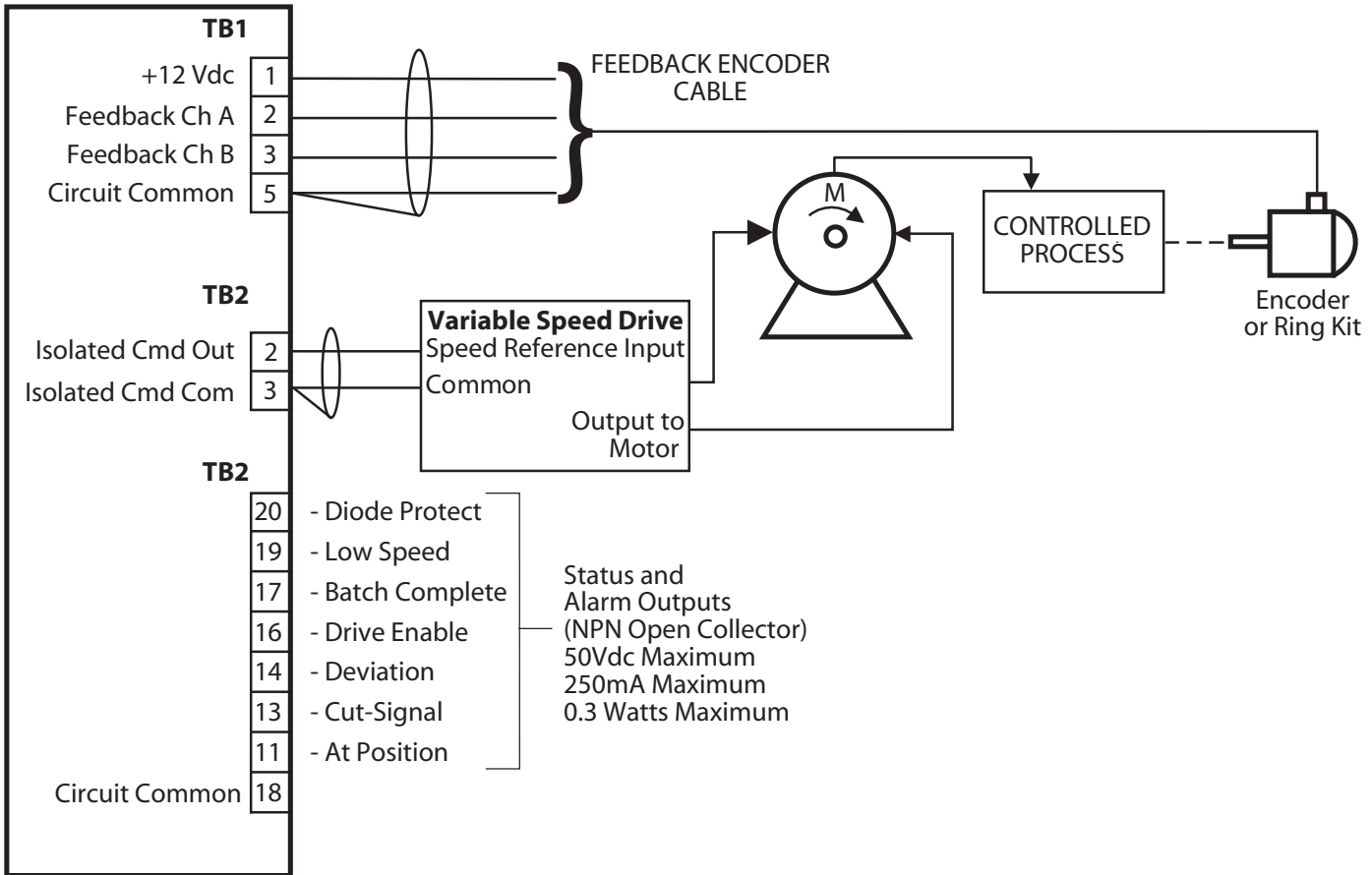
##### Machine Cycle



## Gordy's Sensors

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Website: [www.gordyssensors.com](http://www.gordyssensors.com) or Email: [sales@gordyssensors.com](mailto:sales@gordyssensors.com)

## Typical Encoder Device Wiring



## Specifications • ML196

### Power

Voltage	115 or 230 Vac, 50/60 Hz, 1ø
Fuse	1/4 Amp. fast blow, 115Vac 1/8 Amp. fast blow 230Vac
Sensor Supply	12 Vdc @ 250 mA max

### Sensor Input

Wave Shape	Square, Sine
Types	NPN open collector PNP open collector Magnetic pickup (zero crossing) Logic Level
Maximum Input Frequency	15 KHz
Internal Pull-Up	2.2 KΩ, pull-up to 12V
Trigger Levels	2.5Vdc (NPN, PNP, Logic) 50mV (zero crossing)

### Analog Outputs

Type	Optically isolated, 0 ± 15 Vdc
Maximum Output	Adjustable from ± 3 Vdc to ± 15 Vdc
Current	10mA maximum
Resolution	12 bit D/A converter

### Operational Specifications

Accuracy	Plus/minus one pulse
Preset Set Points	Four
Batch Set Points	One
Accel/Decel Times	User programmable from 0.05 to 600 seconds
Processor	Intel 80C196TB 16-bit Micro Controller
Length Display	6-Digit, 7-segment LED, 0.36" height
Alphanumeric Display	8-Character, 5- by 7-dot matrix, 0.20" height
Computer Interface	RS422 interface standard, 300 to 19200 Baud, full access to variables and control functions

### Mechanical/Environmental Specifications

Enclosure Material	Cold rolled steel
Key Pad	Tactile feedback membrane, chemical resistant, NEMA 4
Operating Temperature	0° C to + 50° C
Humidity	0 to 90% non-condensing
Panel Cutout	5.4" wide x 2.7" high x 7.2" deep
Weight	4.5 lbs.

Specifications subject to change without notice.

DCS-930 Rev A



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