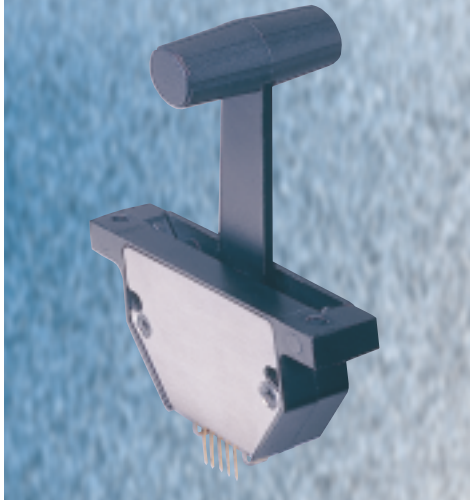


Digital T-bar

Video controller



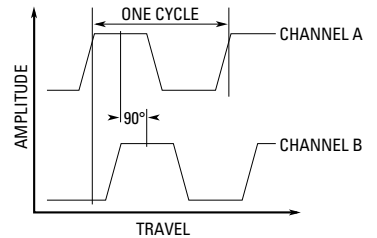
Penny+Giles Digital T-Bar controllers incorporate a high quality optical incremental encoder, generating two channels of quadrature output at 256 counts per channel. This data can then be decoded by the host computer into directional movement.

- smooth precise control
- digital output
- maintenance free
- compact and rugged
- proven durability

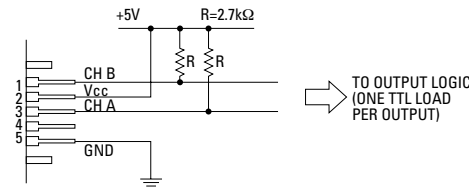
Quadrature waveform and electrical interface

To ensure reliable encoding performance, the encoder module requires 2.7kΩ (±10%) pull up resistors on output pins 1 and 3 as shown below. These resistors should be located as close to the encoder as possible (within 1200mm). Each of the encoder outputs can drive a single TTL load in this configuration

Rise time 180nS typical (CL = 25pF RL = 3.3kohms)
Fall time 40nS typical (CL = 25pF RL = 3.3kohms)
Phase error 15° maximum



Circuit diagram/Terminations



Pin output	Pin 1	Channel B output
	Pin 2	Vcc
	Pin 3	Channel A output
	Pin 4	Not connected
	Pin 5	Ground

Cycles per channel	256
Supply voltage (Pin 2)	4.5 to 5.5 V dc (Ripple<100mV p-p)
Supply current (Pin 2)	30 mA minimum/85 mA maximum
High level output voltage (pins 1 and 3)	2.4 V minimum (IOH = -200 µA maximum)
Low level output voltage (pins 1 and 3)	0.4 V maximum (IOL = 3.86mA)

CONNECTOR DETAILS

A Molex connector type 7720S is supplied but the following are also recommended

AMP	103686-4 or 640445-5
DuPont	HEDS-8902 with 4-wire leads
HP	65039-032 with 4825X-000
Molex	2695 series with 2759 series

Dimensions

