

### Select high-speed counter inputs when...

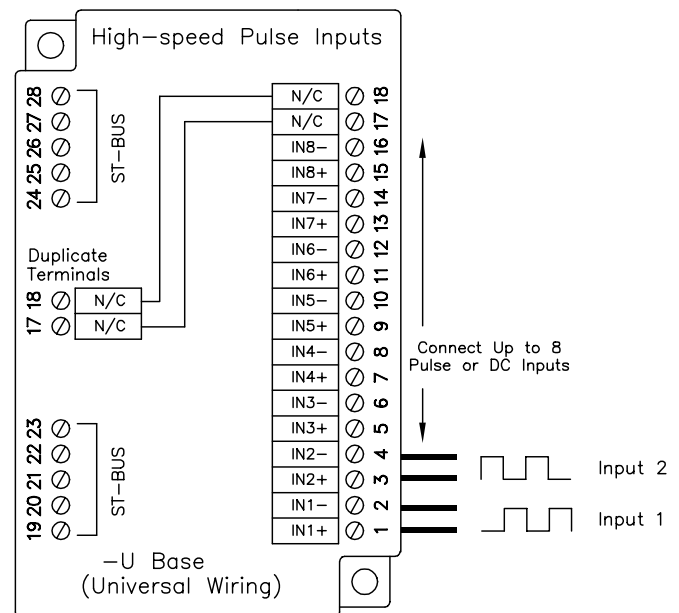
...you need pulse accumulators, pulse rate, or position information.

- Count rates to 50 KHz
- Cascade counters for 32-bit results
- Measure pulses per second or per minute
- Direct position detection from quadrature encoders
- Individually isolated inputs for best noise immunity
- Count inputs also report as discrete inputs

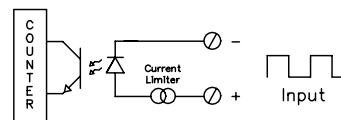


Performance Specifications	
Number of counters	8
Count mode performance:	
Guaranteed count rate	50 KHz
Count resolution	16 bits
Rate (frequency) mode performance:	
Maximum input rate	50,000 per sec
Shortest measurement period	100 mS
Longest measurement period	1 min
Position mode performance:	
Maximum position axes (two channels per axis)	4
Maximum pulses per second	25,000
Maximum quadrature states per second	100,000
Position resolution	32 bits
Input performance:	
Guaranteed count input voltage	4 Volts
Maximum count input voltage	30 Volts
Guaranteed off input voltage	1.5 Volts
Nominal count input current	8 mA
Maximum ST-Bus power	600 mW
Isolation (input to ST-Bus)	1200 V
Operating temperature range	-30 to 70°C
Storage temperature range	-40 to 85°C
Humidity (non-condensing)	5 to 95%

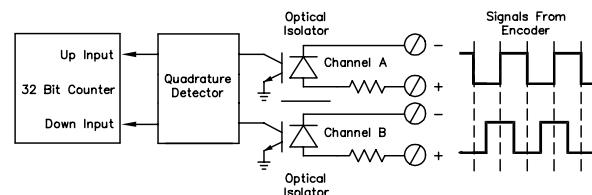
**Note:** A pair of counter channels can be combined to make a 32-bit up/down counter or accumulator.



Typical Count/Rate Input Circuit



Typical Position Input Circuit



### Ordering Information

Description	Part Number
8 High Speed Counters w/Base	ST-DI-CNT-08U
Module Only	ST-DI-CNT-08M