# DP-681

The new DP-681 series counter is feature packed and with a price performance ratio unrivaled, suitable for thousands of applications.



### **Features**

- Use of the latest CMOS circuitry achieves an expected battery life of 10 years.
- Connection using built in screw terminals (on all
- 9mm black high contrast LCD display.
- Back light (externally powered) 5VDC.
- Counting up to 10kHz. (DP-681)
- DP-681 QUAD version quadrature signal compatible. This permits add / subtractcounting in step with forward / reversemotion without count loss or gainingspurious counts.
- DP-681 HV permits triggering from any voltage between 10-240VAC or 5-110VDC ±10%.
- Contact closure/open collector low speed count input with integral de-bounce circuitry (DP-681
- Choice of mounting available, front panel with supplied bezel or rear mounting clip.
- Front panel can be sealed to IP65.
- Installation is simplified all models have screw connections on rear for quick and simple connection.
- UL and cUL pending.

### Common Specs

Battery Non-replaceable Lithium battery, expected life10 vears at 20°C

**Display** 8 digit black LCD, 9mm characters, leading zero blanking, backlight requires external 5VDC supply. Configurable decimal place upto 3 dec place (jumper link configured).

Count Range 99999999 - rollover to 0

Connections Finger-proof screw connections for cables up to 1.5mm2

Operating temperature -10°C to +60°C

Storage temperature -20°C to +60°C

Altitude Up to 2000m

Relative Humidity 80% max up to 31°C, decreasing to 50% max at 40°C

Sealing IP65/NEMA4X

Mounting Either with clip mount supplied or two front screws with bezel supplied.

Manual Reset Enable Configured by jumper link

Packed Weight 62 grammes

Box Dimensions 56mm x 44mm x 62mm

## **Specifications**

#### Power Supply (DP-681 QUAD)

External power supply to power internal count input circuits 10-30VDC

#### External Reset (DP-681 | DP-681 QUAD)

Contact closure/open collector, negative edge triggered, 0.7v threshold, 15mS minimum closure time.

#### Direction Input (DP-681)

Connection or electronic input TTL/CMOS compatible. Add=no connection or >2.4v (logic 1); Subtract=connect to COMMON or <0.7v (logic 0). Direction input must precede count input by 5µS (minimum) for valid operation.

#### Low Speed Count Input (DP-681)

Contact closure/open collector with integral de-bounce circuitry. 30Hz maximum, negative edge triggered, 0.7v threshold, 15mS minimum closuretime. Max 18VDC.

#### High Speed Count Input (DP-681)

Electronic input 10kHz maximum, negative edge triggered, 0.7v threshold 50µS minimum pulse length, TTL/CMOS Compatible. Max 18VDC.

#### Quadrature Signal Inputs (DP-681 QUAD)

Electronic input 2.5kHz maximum, negative edge triggered, 0.7v threshold 200µS minimum pulse length, TTL/CMOS Compatible.

#### External Reset (DP-681 HV)

10-110VDC ±10%, 10-240VAC ±10%, 50mS minimum length.

#### **Direction Input (DP-681 HV)**

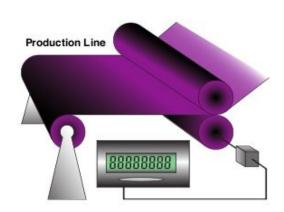
Connection or electronic input TTL/CMOS compatible. Add=no connection or >2.4v (logic 1); Subtract=connect to COMMON or <0.7v (logic 0). Direction input must precede count input by 5µS (minimum) for valid operation. Max 18VDC.

#### Count Input (DP-681 HV)

10-110VDC ±10%, 10-240VAC ±

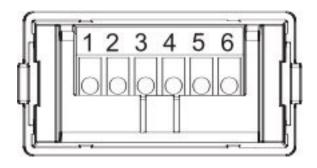
# **Applications**

- Replacement for electro-mechanical counters.
- Applications where external power is notreadily available.
- Position, length, rotation and distancemeasuring applications.
- Event counting

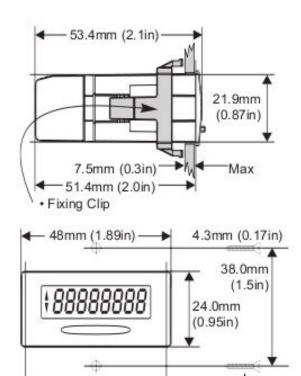


## Connections

Rear view screw terminal connections:



## Dimensions



Panel cutout 45mm x 22.5mm ( 0.771" x 0.885")

Screw-fixed bezel

-44.9mm (1.77in) →