Model PC58 & PCDT58
Electronic Totalizer & Register

Rev 11/03

The PC58 is a battery powered scaling totalizer featuring 4.5 digits of rate and 8 digits of total. The PC58 accepts magnetic pickup, DC pulse and a switch closure input. The unit can be ordered with an optional 4-20mA output. The PC58 uses the 4-20mA loop to provide power when this output is used.

The PCDT58 provides both 5 digit reset totalizer and a separate 8 digit non-reset totalizer.

Specifications

Power:
- Supplied Lithium battery pack (2 'C' size)

External Power (Optional)
- 8.5 to 30 VDC, Less than 5 mA current
- Supplied with 1 'C' lithium battery*
- Reverse Polarity Protection on DC Power Input

Loop Powered Input
- 8.5 to 30 VDC, supplied with 1 'C' lithium battery*
- Reverse Polarity Protection on current loop
- Loop burden: 8.5 V max

*Battery must be installed to power display

Battery Life Expectancy:

	Idle	2hrs/day	8hrs/day	24hrs/day
PC58 A	5 yrs	4.5 yrs	3.5 yrs	2.1 yrs
PC58 A 4	5 yrs	3.7 yrs	2.7 yrs	1.5 yrs
PC58 B/C Standby Oper.	2.5 yrs	2.25 yrs	1.75 yrs	1 yrs
PC58 B/C External or Loop Power	10 yrs			

Display:
- Low Battery Warning, (BAT)
- Rate (4.5 digits, selectable decimal point)
- Reset (5 digits, selectable decimal point)
  on 0.35" LCD segment, updates every 2 seconds
  descriptors: /SEC, /MIN & /HR

- **Totalizer (8 digits, selectable decimal point):**
  on 0.2" LCD segment
  descriptors: GAL LIT, FT3 & ME

† A large delay setting and internal math operations may delay the update rate.

Pulse Output:
The pulse output advances with the least significant digit of the totalizer.
- Type: Opto-isolated open collector transistor
- Max. voltage (off state): 15 Hz
- Current (on state): 5 mA @ .9 V drop,
  .1 mA @ .7 drop
- Pulse Rate/Duration: Selectable (see below)

Speed (Hz)	**1**	**2**	**4**	**8**
Min. on/off (msec)	**500**	**250**	**125**	**62.5**

- Pulse output divider: User selectable, ÷1, ÷10, ÷100 or OFF **NOTE: Select OFF for max. battery life.**

Accuracy:
- 0.01% Reading, ±1 count
- Temperature drift: 50 ppm/°C --worst case

Mounting Styles:

0- Circuit Board	OEM option (consult factory)
1- Panel Mount	NEMA 4X Front
2- Wall Mount	NEMA 4X Enclosure (unit mounted behind clear cover)
3- Explosion Proof	Class I, Division I, Groups B, C & D. Class II, Division I, Groups E, F & G
5- Wall Mount	NEMA 4X Enclosure (unit mounted on cover)

Environmental:
- Operating Temperature: -4°F(-20°C) to +158°F(70°C)
- Extended Temp: -22°F(-30°C) to +158°F(70°C)
- Humidity: 0 - 90% Noncondensing

Inputs:

- **Magnetic Pickup Input**
  Frequency Range: 0 to 3500 Hz
  Trigger Sensitivity: 30 mV p-p
  Over Voltage Protected: ± 30 VDC
- **Opto-Isolated DC Pulse Input**
  High (logic 1): 4-30 VDC
  Low (logic 0): Less Than 1 VDC
  Minimum Current: .5 mA
  Hysteresis: 0.4 VDC
  Frequency Range: 0 to 5 kHz
  Min. Pulse Width: 0.1 msec
- **Contact Closure Input** (contact closure to common)
  Internal Pullup Resistor: 100 kΩ to +3.6 VDC
  High (logic 1): Open or 4-30 VDC
  Low (logic 0): Less Than .5 VDC
  Internal Switch Debounce Filter: 0-95 Hz

CAUTION: Sustained contact closure will shorten battery life.

- **Reset Input** (contact closure to common)
  Internal Pullup Resistor: 100 kΩ to +3.6 VDC
  High (logic 1): Open or 4-30 VDC
  Low (logic 0): Less Than .5 VDC
  Minimum On : 25 msec

- **K-FACTOR**
  Range: 0.001 to 59999
  Decimal Point Locations: XX.XXX to XXXXX
  Factor Multiplier: Multiplies entered K-Factor by 1, 10, 100, 1000.
- **10 Point Linearization Option**
  This feature allows the user to enter 10 different frequencies with 10 different corresponding K-Factors to linearize non linear signals.

Analog Output Option:

- Type: 4-20 mA follows rate display, Two wire hookup
- Accuracy: 0.15% Full Scale at 20° C
- Temperature drift: 50 ppm/°C --worst case
  200 ppm/°C --worst case

NOTE: The PC58 uses the 4-20 mA loop power as its power source when this option is used. The battery is still required to power the display.

Model Options

PCDT58

PC58 3 C ET

Series

Mounting
- *0 = None
- *1 = Panel Mount
- 2 = NEMA 4X Box with unit mounted behind clear cover
- 3 = Explosion Proof Housing
- 5 = NEMA 4X Box with unit mounted on opaque cover

Power Supply
- *A = Battery
- B = External Power Supply (8.5 to 30 VDC)
- C = Loop Powered with 4-20 mA Output
- A/C = Loop Powered with 4-20mA output and dual battery backup

Options
- 4 = 10 Point Linearization
- ET = Extended Temperature: -22°F to + 158°F (-30°C to +70°C)

* External battery pack supplied with models PC580A & PC581A

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