

PC-100

(Portable Scanning Head)



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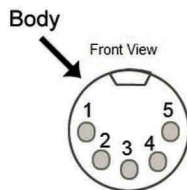
1. Abstract

PC100 is a lightweight portable scanning head. It is designed for detecting LED flashing in electricity meters. It can detect typical colors of LED: red, orange yellow, green and infrared. A permanent ring-magnet is built into the scanning head to be magnetically attached to the meter and test in the correct position in front of the light emitting diode. The output pulse rate could be divided to 10 or 100 via a user selectable push button. In addition a LED shows the state of output pulse division.

Green → 1:1
Red → 10:1
Orange → 100:1

Custom-made products are available on demand.

2. Wiring Configuration



Pin	Signal	Color	Description
2	PO	Green	Pulse Output
Body	VCC	Brown	+5 v
3	GND	Yellow	Ground
1- 4 - 5	NC		Not Connected

3. Electrical Characteristics

Supply Voltage	4.5 ~ 5.5	Volt - DC
Current Consumption	10 mA	1:1
	11 mA	10:1
	13 mA	100:1
Maximum Detectable Pulse Rate	10Hz	1:1
	100Hz	10:1
	1000Hz	100:1

4. Mechanical Characteristics

Weight:	72g(including Cable)
Housing:	Hard plastic
Force of Magnetic attraction:	>15 N
Cable Length:	1.5 Meter
Connector:	Din 5 Pin 180°

5. Absolute Maximum ratings*

Condition	Values
Maximum Operating Voltage	+5 Volt DC
Pulse Output (High)	4.2 ~ Vcc
Pulse Output (Low)	0 ~ 0.7
Operating Temperature	-5 to 60 degree centigrade
Storage Temperature	-40 to 60 degree centigrade
Ambient operating humidity	10% to 90%
Electrostatic Discharge	4 KV (Human body model)

ESD CAUTION



ESD (electrostatic discharge) sensitive device. Charged devices and circuit boards can discharge without detection. Although this product features patented or proprietary protection circuitry, damage may occur on devices subjected to high energy ESD. Therefore, proper ESD precautions should be taken to avoid performance degradation or loss of functionality.

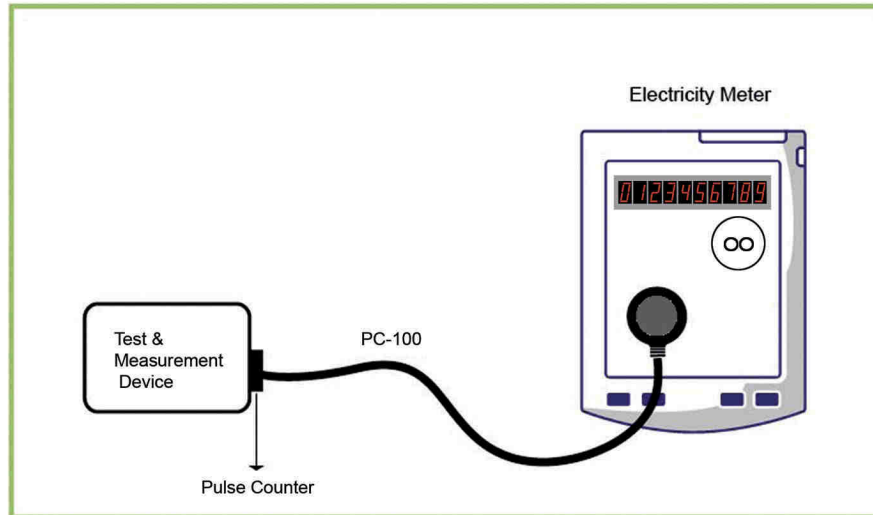
*Note:

Stresses beyond those listed under “Absolute Maximum Ratings” may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions beyond those indicated in the operational sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

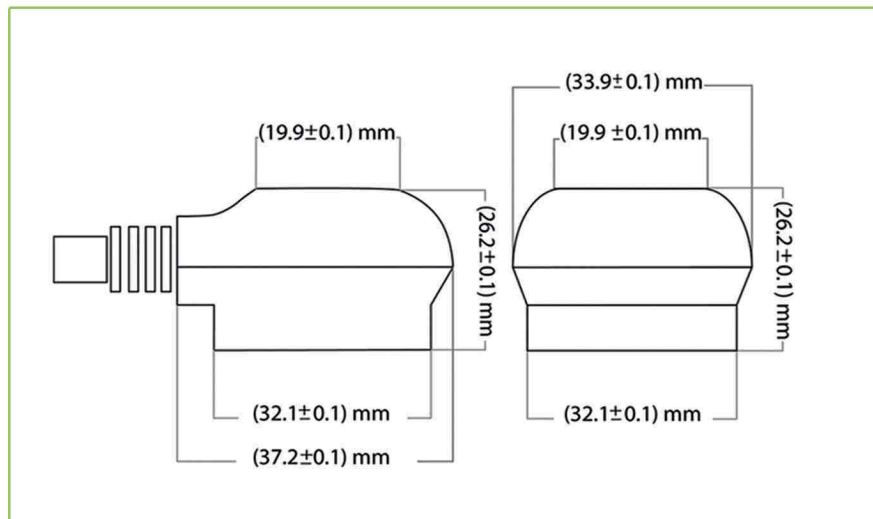
6. Cable Characteristics

Mutual capacitance:	C/C approx. 140 nF/km C/S approx. 150 nF/km
Peak operating voltage:	(not for power applications) 250 V
Inductivity:	approx. 0.65 mH/km
Based on:	VDE 0812
Specific insulation resistance:	> 20 GOhm x cm
Conductor stranding:	Stranded, extra-fine wire
Test voltage:	1200 V
Temperature range:	
Fixed installation:	-30°C to +80°C
Occasional flexing:	-5°C to +70°C
Number of cores and mm ² per conductor:	4 x 0,14
Outer diameter (mm):	4.7±0.2mm
Copper index (kg/km):	12.0
Weight (kg/km):	27

7. Installation



8. Mechanical Dimensions





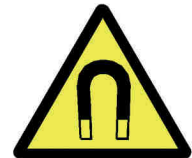
9. Electrostatic sensitive device Warnings

The enclosure of this device is safe against ESD (up to 4KV in Human body model). But safety precautions should be considered while touching bare ports (bare wire, Connectors, etc.)



10. Magnet Safety Warnings

This device contains a strong Neodymium magnet. German Metering will NOT be responsible for personal injury or property damage resulting from the use or misuse of our products! Please use caution and common sense, and please read and understand our safety warnings below!



- **Damage to magnetic storage media**

Magnetic fields can cause damage to magnetic storage media. These include: cassette tapes, floppy disks, credit cards, video tapes, and computer hard drives. Keep this device at least 24 inches (approx. 61cm) away from all types of magnetic media.

- **Damage to Electronics**

Certain electronic devices are sensitive to magnetic fields and may be damaged permanently or temporarily disabled if exposed to a magnetic field that is too strong. Any video screen or television will become distorted and/or discolored if exposed to a strong magnetic field. While damaged screens can usually be demagnetized, it's often tricky and may require qualified service technicians to do so. Other electronic devices like cellphones and pagers can also be damaged. Store this device in a safe place away from electronics of any kind.

DISCLAIMER

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