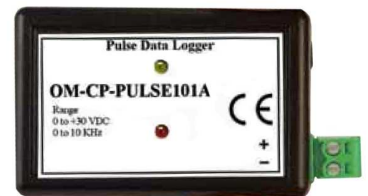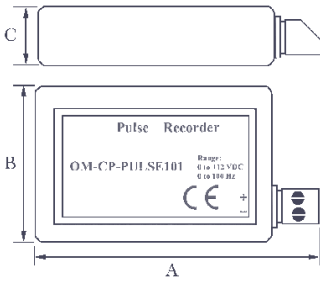# 101A
Pulse Data-Logger

Part No. 101A - BASIC UNIT
Part No. IFC200 - SOFTWARE & USB CABLE (Optional)
Part No. WATERBOX101A - IP65 RATED ENCLOSURE (Optional)

The 101A is a low-cost recording device that will sense a pulse input or contact closure from external sources such as transducers or pulse initiators (gas, water, and electric meters) and transform those inputs into engineering units.

In addition, this data logger allows the user to store user defined units such as litres/min into the device as well as scale factors and offset values. This enables the user to easily linearize and scale any transducer that provides a pulse or contact closure output to any user required units automatically.

Once activated the data logger senses and records the number of pulses/contact closures that occur within adjacent "time bin" periods. The bin period is selectable from 1 second to over 24 hours. At the end of each bin period, the total number of pulses/counts within the bin period is recorded.

The data logger then starts another bin period and continues until either the memory is full or the test period has ended. Its real time clock ensures that all data is time and date stamped. This is ideal for recording events.

The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged. Its small size allows it to fit almost anywhere. Data retrieval is simple. Plug it into an empty USB port and the easy-to-use software does the rest.

The software converts your PC into a real time strip chart recorder. Data can be printed in graphical or tabular format and can be exported to a text or Microsoft Excel file.

FUNCTIONS	
Reading Rate	1 reading every second to 1 every 24 hours
Start Modes	Immediate start Delay start up to 18 months Multiple push button stop/start
Multiple Start/Stop Mode	Start and stop the device multiple times without having to download data or communicate with a PC
Memory	500,000 readings; software configurable memory wrap 250,000 readings in multiple start/stop mode
Memory Wrap Around	Yes (software selectable)
Real-Time Recording	The device may be used with PC to monitor and record data in real-time
LED Functionality	**Green LED Blinks**: 10 second rate to indicate logging; 15 second rate to indicate delay start mode **Red LED Blinks**: 10 second rate to indicate low battery and/or full memory; 1 second rate to indicate an alarm condition
Password Protection	An optional password may be programmed into the device to restrict access to configuration options. Data may be read out without the password
Engineering Units	Native measurement units can be scaled to display measurement units of another type. This is useful when monitoring outputs from different types of sensors such as flow rate, wind speed and more

SPECIFICATIONS	
Time Accuracy	±1 minute/month at 20°C
Input Connection	Screw terminal
Maximum Pulse Rate	10 Khz
Input Range	0 to 30V DC
Input Low	<0.4V
Input High	>2.8V
Internal Weak Pull-Up	<60 µA
Input Impedance	>60 KΩ
Pulse Width	≥10 microseconds (min)
Battery Type	3.6V Lithium replaceable
Battery Life	Typically 10 years
Ambient Temp Range	-40°C to 80°C
Humidity Range	Up to 95% RH non-condensing
Dimensions	A - 64mm B - 36mm C - 16mm

IFC200 - SOFTWARE & CABLE DATA (OPTIONAL)	
Software Compatibility	Windows XP SP3, Vista, 7 & 8 (32 & 64-bit)
Connection	USB
Cable Length	3.7 M
Baud Rate	115,200

WATERBOX101A - WATERPROOF ENCLOSURE DATA (OPTIONAL)	
Water Proofing	NEMA 4 - IP65
Material	Black anodized aluminium
Dimensions	Width 148mm, Height 74mm, Depth 39mm