

# The 1700 Series

# Large Digital Displays

Thousands of these 1700-series displays are in use right now, helping people all over the world to keep informed about changing conditions in their manufacturing processes. Choose from a wide range of standard models, or tell us about your process and we will be pleased to custom build a display to suit your exact needs.

## 11 reasons to choose the 1700 series...

- Easy to use
- Smart styling
- Competitively priced
- Low maintenance costs
- Remote setting from ground level
- Modular - built to suit your exact needs
- High immunity to interference
- Indoor and outdoor models
- Fast, free technical support
- Long warranty, extendable free of charge
- Description texts available

## 14 Display Functions

- Total
- Rate
- Target ( ideal for production lines)
- Velocity
- Frequency
- Weight
- Temperature
- Humidity
- Real Time
- Elapsed Time
- Time remaining
- Product or location ID
- Power
- Pressure
- ... any combination of the above

## 7 Input Signal types

- 4-20mA, 0-10V, 1-5V etc
- Pulses PNP, NPN, Contact etc
- Serial Data RS232, 485, 422 etc.
- BCD data, via model PSC1
- Temperature sensors
- Humidity sensors
- Profibus DP
- Loadcells

## 4 digit sizes

- 57 mm for up to 25 metres viewing
- 102mm for up to 50 metres viewing
- 200mm for up to 100 metres viewing
- 280mm for up to 140 metres viewing
- 400mm for up to 200 metres viewing



A simple and affordable way to see and share important measurements over distances up to 330 metres.

Your workforce will know what is happening right from their normal working area. Measurements can be seen up to 140 metres away. Ideal for displaying:-

- \* Temperature and humidity in controlled environments
- \* Crane lifting weight - are we within safe limits?
- \* Weighbridge loads - the driver can stay in his cab.
- \* Production rate - are we working fast enough?
- \* Production total and target - have we made enough?
- \* Elapsed time and time remaining - maintenance needed?
- \* Any physical variable important to your process

All the signal conditioning, power supply and display circuitry is included in the enclosure, so installation is simple and tidy.

Just apply power (95-265 VAC or optionally 11-30 VDC) and connect your input signal to get precise display of your process variables.

You can wall-mount, suspend, pole or panel mount these displays. For mounting outside, you get an economical shroud which may be wall or pole mounted (75mm dia pole fixings provided).



## Mounting examples for the 1700 Series



### Chain Suspension

Multi-line displays can be large, so the most practical way to mount them is often with heavy duty chains.

Here is a 3 line display with 200mm high digits designed for a paper mill. Visible up to 100 metres.



### Swivel Wall Mounting

Single line displays are often wall mounted, such as this elapsed time display.

The same display can be mounted into a panel cutout without any extra hardware.



### Simple Suspension

If you need to mount your displays above the work area this simple suspension method is ideal.

You can rotate and swivel the displays for best visibility.



### Flat wall mounting

Multiline displays can be bolted to a sturdy wall.

This model was custom made to give lorry drivers important loading instructions.



### Weather Cowl

You may want to mount your display outside. If so, you can mount your display in these specially designed weather cowls to protect it from rain and snow.

These displays are often used in quarries and weighbridge applications to show loading weights.

## Models, functions and descriptions for the 1700 series

<b>B175X BCD Data</b>	Ideal for PLC slave-display applications. We supply a PSC1 BCD to serial converter, which you mount near the PLC. You only need to connect 4 wires from the converter to the display - simple, economical installation. 5 or 7 digit capacity. 5V, 12V or 24V logic - please specify when you order.
<b>C17XX Clock</b>	Time is one of the most important measurements for modern man! Internal crystal controlled clock in HH:MM or HH:MM:SS format. Versions also accept serial data. Optional Serial Data output ASCII RS422.
<b>E17XX Elapsed Time</b>	Predictive maintenance and critical process timing are two popular applications for these displays. MM:SS, HH:MM or HH:MM:SS format. Please specify your exact requirements when you order and we'll configure the display for you, free of charge. Can also act as a "Time Remaining" display. Optional Serial Data output ASCII RS422.
<b>L175X Weight</b>	High visibility check-weighing at an attractive price. Direct loadcell connection. Remote scaling & autotare. Selectable filtering. Up to 5 digits of display range 0-99999. Accuracy +/-0.02% of range. Resolution maximum 1 part in 99999. Last-digit roundup facility to count by 1,2,5 or 10. Excitation supply 5V at 60mA max. Remote contact closure auto-tare. Optional RS422 ASCII data output port, or 2 alarm relays
<b>P175X Process</b>	The most popular industrial process signal is 4-20mA. These versatile displays let you convert any 4-20mA signal to a high visibility, precision scaled readout of the process variable. 4-20mA or 0-10V DC inputs as standard. Selectable filtering. Fully remotely scaleable. Up to 5 digits of display range 0-99999. Accuracy +/-0.02% of range. Resolution maximum 1 part in 99999. Last-digit roundup facility to count by 1,2,5 or 10. Excitation supply 24V at 30mA max. Remote contact closure autotare. Optional RS422 ASCII data output port, or 2 alarm relays.
<b>PDP17XX Profibus DP</b>	Addressable slave displays, which conform to ProfibusDP. Ideal for use in Siemens based PLC systems. Often found on production lines, to show performance figures.
<b>R175X Rate / Frequ.</b>	How fast is your production line working? What is the RPM of your centrifuge. What is the frequency of the power coming from your backup generator? Accepts NPN, PNP, Contact Closure etc. Fully remotely scaleable. Averaging capability. Crystal controlled timebase. Sensor Excitation 12V at 65mA. Optional RS422 ASCII output.
<b>RTD175X RTD/PT100</b>	Is your processing environment too hot, too cold or just right? Let everyone know - display the temperature on a large display. Accepts nearby PT100 3 wire sensors. Degrees C or Degrees F notation on front lens. Optional Serial Data output ASCII RS422 or 2 alarm relays. <b>Note:</b> A suggestion if your sensor is more than 5 metres from the display... for the best precision, mount a signal transmitter near the sensor and send 4-20mA to the display (such as the P175X).
<b>S17XX Serial Data</b>	Do you have a piece of equipment with a serial output port? Maybe a PLC, weigher, or even a PC with an Excel sheet. If that data is important, why not broadcast it? Make it clearly visible with the help of a serial input remote display. Accepts RS232, RS485, RS422, 20mA TTY etc. Fully addressable. Wide protocol flexibility. Baud rates 300, 600, 1200, 2400, 4800, 9600. Format 8 data, no parity, 1 or more stop bits. Can be configured to select certain parts only of a serial transmission for display. Profibus DP versions also available.
<b>T17XX Totaliser</b>	Let the production team know how they're doing. Display their real-time results and you can be sure they'll be more motivated and more likely to hit targets on time. Accepts NPN, PNP, Contact Closure etc. Up/Down or 2 count I/P's. Fully remotely scaleable. Quadrature input model for bidirectional counting. Sensor Excitation 12V at 65mA. Optional RS422 ASCII output.
<b>TC175X T/C</b>	Make your important temperature measurements really stand out with a large digit display. Accepts type J, K, T, R, S Thermocouples. Degrees C or Degrees F notation on front lens. Optional Serial Data output ASCII RS422 or 2 alarm relays. <b>Note:</b> A suggestion if your sensor is more than 5 metres from the display... for the best precision, mount a signal transmitter near the sensor and send 4-20mA to the display (such as the P175X).

**You can order any combination of these units, mounted in a single enclosure. For example, you could combine a clock, a counter, a ratemeter and a temperature display, to form a 4 line display. The choice is entirely up to you, allowing full customisation to suit your exact needs.**

## General specifications for the 1700 series

For the standard-stock single line displays:

Operating manuals and extra info at <http://london-electronics.com>

Case Material : uPVC, welded. Gasket Material: Neoprene Sealing screws: Stainless Steel

Digit Height	Case dimensions*		Panel Cutout dimensions		Sealing
	5 digit mm (Kg)	7 digit mm (Kg)	5 digit mm	7 digit mm	
<b>57mm</b>	291x142 (2.5)	387x142 (3.0)	293x144	389x144	IP65
<b>102mm</b>	483x179 (4.5)	674x179 (5.0)	485x181	676x179	IP65
<b>144mm</b>	642x181 (5.5)	883x181 (6.0)	644x183	883x183	IP65
<b>200mm</b>	824x237 (7.0)	1140x237 (8.0)	826x239	1142x239	IP65
<b>280mm</b>	1169x327(12.0)	1606x327(13.5)	1171x329	1608x329	IP65
<b>400mm</b>	1515x456(16.0)	2135x456(18.0)	1517x458	2137x458	IP65

\* Panel mounting bezel (if requested) adds 18mm to width and height

Power supply : 95-265VAC 45 to 450 Hz. Std. power, 11-30V DC optional, for 12 or 24 V systems.

Power consumption : Energy efficient - 20 watts maximum

Alarm option : 2 alarms SPST rated 2A 250 VAC. Selectable HI or LO. Display flashes in alarm state

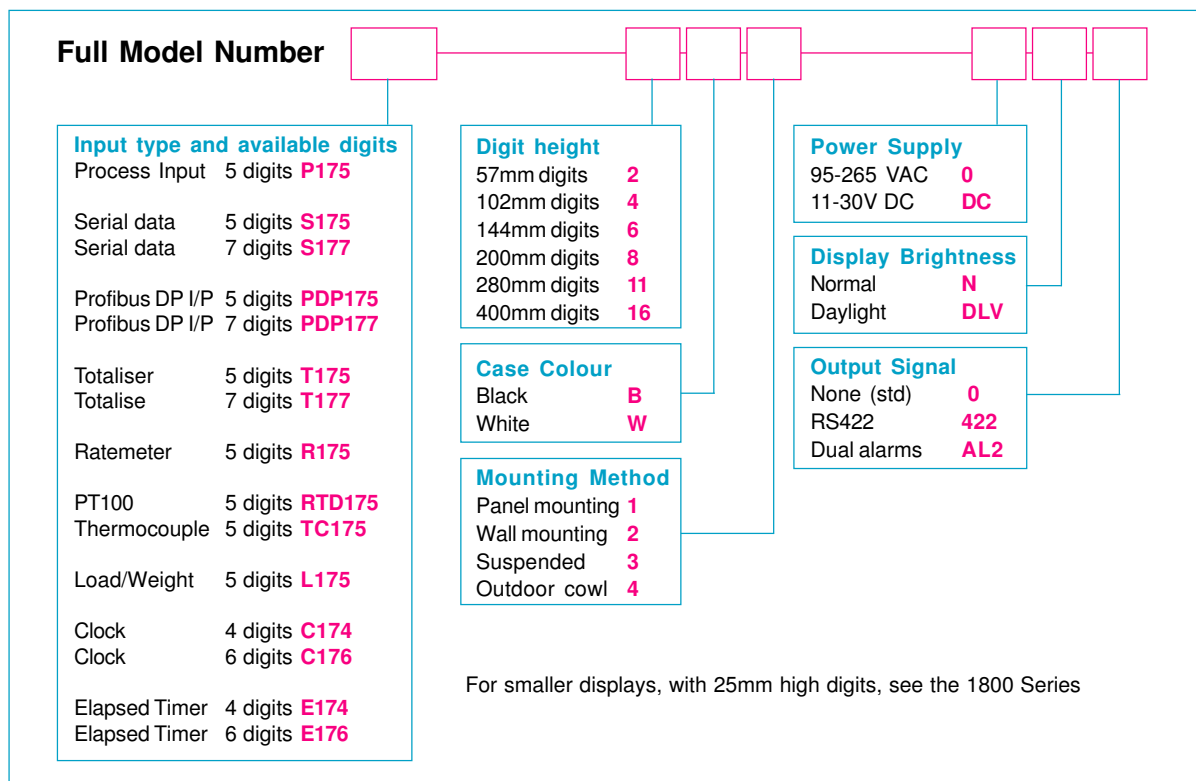
Mounting methods : Wall, panel or suspension, mounting kit included in price, specify when ordering. Cowl extra.

Operating temperature : -10 to +50 degrees C

Storage temperature : -40 to +60 degrees C

Humidity : 57-144mm types 100% (IP65), 200-400mm types 0-95% non-condensing (IP54)

**Red, Green or Amber digits are available. NB Green is not well suited to bright ambient lighting areas. Daylight viewing displays are made from a matrix of ultrabright 5mm elliptical LED's. They have a 45 degree viewing angle . All 144, 200 and 280mm and 400mm types use individual dot LEDs. 57mm and 102mm normal brightness displays have solid segment digits.**



Example **P1752-B-2-DLV-422** = Process display with 5 x 57mm high digits, black case, wall mounting, daylight viewing brightness, RS422 output. A remote programmer sealed to IP65 is available, part number **1700RP**. This comprises of 3 sealed pushbuttons in a wall mounting enclosure, so is not essential, but advisable if you wish to reconfigure your displays in a harsh environment. Add suffix **DCPSU** for DC powered displays. Add suffix **'Green'** or **'Amber'** if you wish digit colours other than red.