



# CRYSTAL DISPLAY SYSTEMS LTD

## FULL IP66 MONITORS

**CDS offers a comprehensive selection of robust monitors featuring bright displays and durable metal housings.**

These rugged dust and waterproof monitors are available in various sizes and with a multitude of features, such as touchscreen capability, IP-rated ingress protection, compliance with military-grade specifications, and high-brightness, sunlight-readable industrial LCD panels.

### Product Customisable / Interface

We provide a wide range of customisation options to meet your requirements.

- Size or structure
- Glass cover surface treatment AG, OB
- Panel 'sunlight readable' brightness
- Displays interface ~ VGA, DVI, HDMI, DP or more



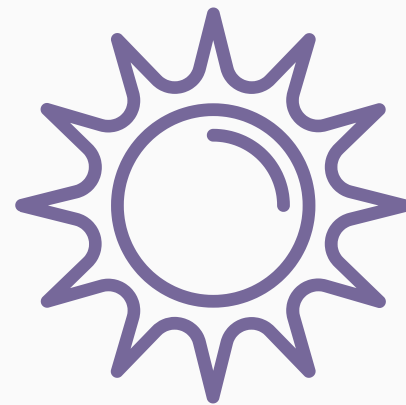
# THREE STEP PROCESS

*CDS has supported FULL IP projects for a number of years based on complete bespoke designs. Although the solutions divisions has grown from strength to strength it was felt a standard range was required.*



1

Chose the size of monitor needed. The range consists of standard sizes from 10.1" upto 55"



2

Depending on the environment a number of brightness options are available from and indoor 250cd to 1500cd



3

The solutions are available as purely an information display or with an interactive touch glass (PCAP or RTP)

# Industrial FULL IP66 Monitor range

Diagonal	10.1"	12.1"	15"	15.6"	17"	19"	21.5"	23.8"	32"	43"	49"	55"
Resolution	1280 x 800 WXGA	1024 x 768 XGA	1024 x 768 XGA	1920 x 1080 FHD	1280 x 1024 SXGA	1280 x 1024 SXGA	1920 x 1080 FHD	1920 x 1080 FHD	1920 x 1080 FHD	1920 x 1080 FHD	1920 x 1080 FHD	1920 x 1080 FHD
Colour	16.7M	16.7M	16.7M	16.7M	16.7M	16.7M	16.7M	16.7M	16.7M	16.7M	16.7M	16.7M
Brightness	700cd/m²	700cd/m²	700cd/m²	700cd/m²	700cd/m²	700cd/m²	700cd/m²	700cd/m²	700cd/m²	700cd/m²	700cd/m²	700cd/m²
Viewing Angle	170° / 160°	170° / 160°	170° / 160°	170° / 170°	170° / 160°	170° / 160°	178° / 178°	178° / 178°	178° / 178°	178° / 178°	178° / 178°	178° / 178°
I/O	VGA + HDMI	VGA + HDMI	VGA + HDMI	VGA + HDMI	VGA + HDMI	VGA + HDMI	VGA + HDMI	VGA + HDMI	VGA + HDMI	VGA + HDMI	VGA + HDMI	VGA + HDMI
Operating Temp	-10 to +60°C	-10 to +60°C	-10 to +60°C	-10 to +60°C	-10 to +60°C	-10 to +60°C	-10 to +60°C	-10 to +60°C	-10 to +60°C	-10 to +60°C	-10 to +60°C	-10 to +60°C
Power	12V dc / 9~36V dc	12V dc / 9~36V dc	12V dc / 9~36V dc	12V dc / 9~36V dc	12V dc / 9~36V dc	12V dc / 9~36V dc	12V dc / 9~36V dc	12V dc / 9~36V dc	12V dc / 9~36V dc	12V dc / 9~36V dc	12V dc / 9~36V dc	12V dc / 9~36V dc
IP Rating	FULL IP66	FULL IP66	FULL IP66	FULL IP66	FULL IP66	FULL IP66	FULL IP66	FULL IP66	FULL IP66	FULL IP66	FULL IP66	FULL IP66
Optical bonding	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mechanics	Chassis	Chassis	Chassis	Chassis	Chassis	Chassis	Chassis	Chassis	Chassis	Chassis	Chassis	Chassis
Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel

## BRIGHTNESS OPTIONS

1000cd	✓	✓	✓	✓	✓	✓	✓					
1500cd				✓	✓	✓	✓	✓	✓	✓	✓	✓
2000cd										✓	✓	✓

## TOUCH OPTIONS

RTP Touch	✓	✓	✓	✓	✓	✓	✓					
PCAP Touch	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓



# WHAT IS IP66 RATING?

Ingress Protection (IP) is an international standard used to measure the effectiveness of level of sealing for an electrical enclosure. The first figure relates to solid protection, and the second liquids. The higher the number, the better the protection.

## SOLIDS

- 1 Protected against solid objects of 50mm and greater
- 2 Protected against solid objects of 12.5mm and greater
- 3 Protected against solid objects of 2.5mm and greater
- 4 Protected against solid objects of 1mm and greater
- 5 Dust protected - no harmful ingress
- 6 Dust tight  
No ingress

## LIQUIDS

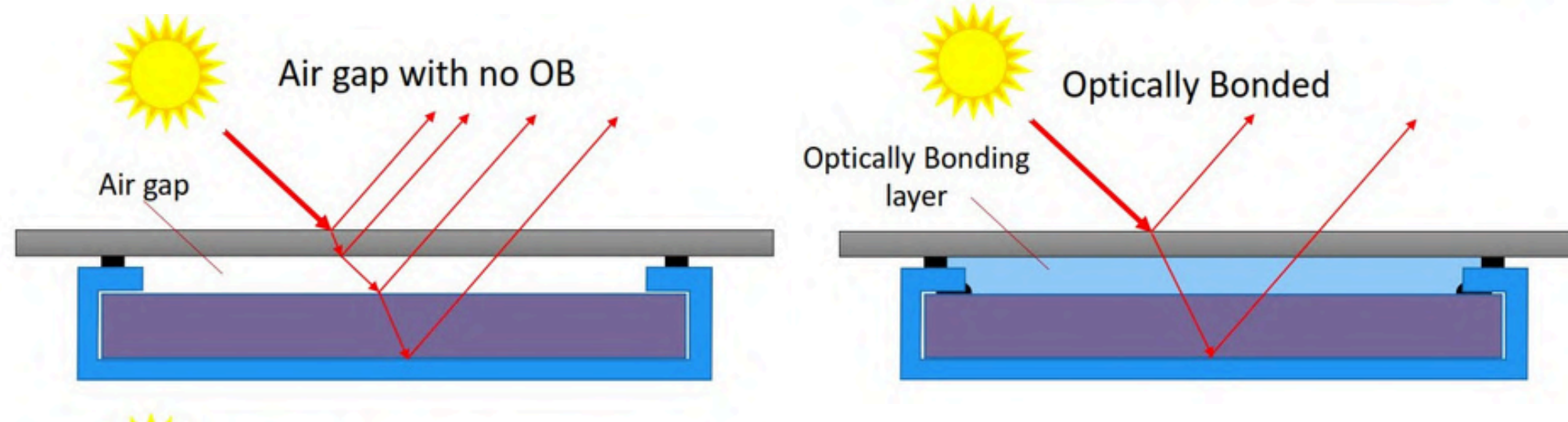
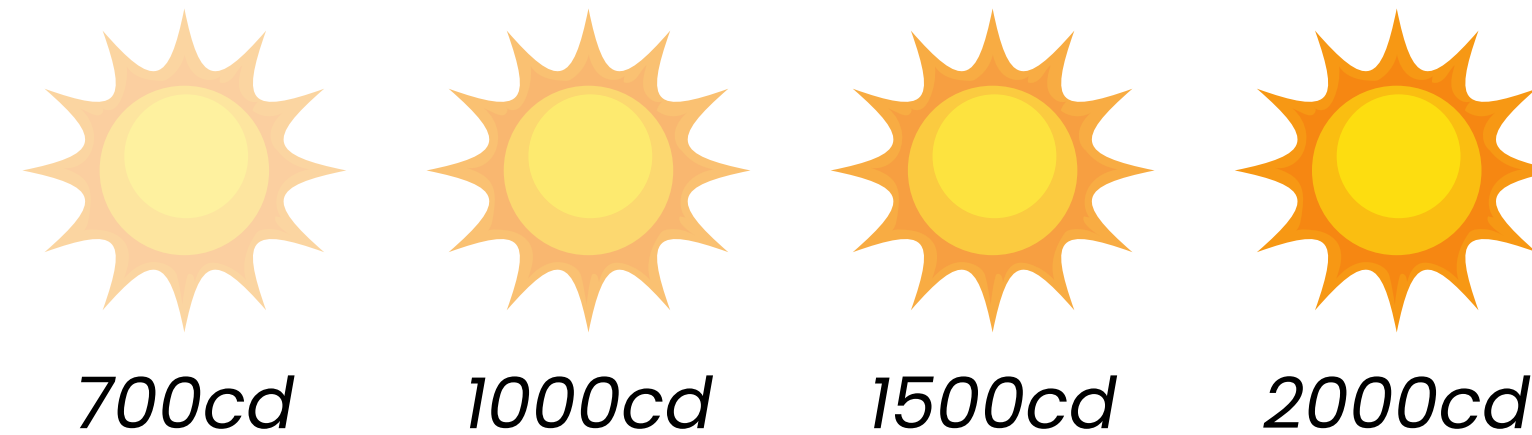
- 1 Protected against falling drops of water up to 10 mins
- 2 Protected against vertical falling drops of water up to 15 degrees
- 3 Protected against spraying water
- 4 Protected from splashes of water from all directions
- 5 Protected against jets of water
- 6 Protected against strong jets of water

# BRIGHTNESS & OPTICAL ENHANCEMENTS

LCD optical performance impacts user experience and application use. Brightness aids readability, contrast gives clarity, and colour accuracy matters. Poor optics hinders understanding. Good optimisation yields a high-quality visual experience.

## Enhanced brightness options

Standard LCD TV brightness typically ranges from 300 to 500 cd/m<sup>2</sup>. In contrast, CDS provides a significantly enhanced brightness spectrum, starting at 700 cd/m<sup>2</sup> and extending to an exceptionally bright 2000 cd/m<sup>2</sup>. This wider range offers superior visibility, especially in brightly lit environments.



## Optical bonding...[more](#)

Optical bonding fills the air gap in LCDs with clear adhesive, boosting contrast and reducing glare for better visibility, especially in sunlight. It enhances durability, prevents dust and moisture, and improves touchscreen accuracy by eliminating parallax. This process is vital for robust, high-performance displays in demanding applications.

# Crystal Display Systems – About us!

**The CDS Philosophy of business – Industrial Displays from Crystal Display Systems the leading designer, distributor, value added reseller as well as the developer of custom monitors and customization of flat panel display solutions.**

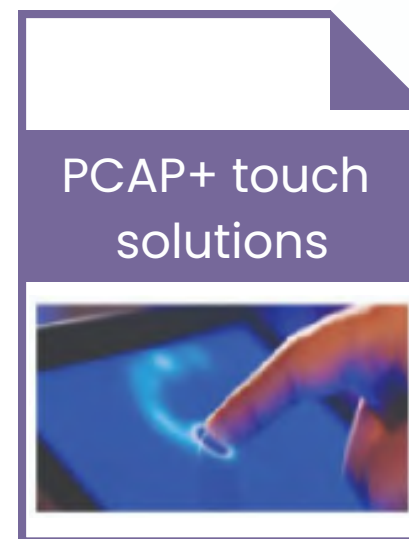
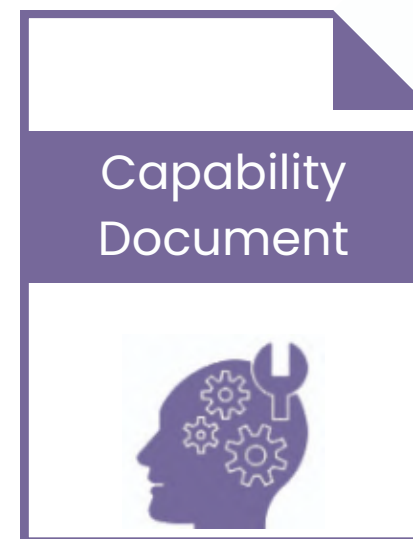
Established over 12 years ago, our expertise allows us to offer the best solutions to our clients and partners. We offer Industrial TFT LCDs, OLEDs embedded AIO, touch screens, and digital signage solutions.

With the CDS philosophy of business we combine the latest industrial and retail displays and technology, engineering and manufacturing capabilities to optimise our integrated solutions.

If you have a requirement for any digital display products then please contact our Technical sales and support team to work closely with you on your specific project and requirements.

---

**DOWNLOAD CENTRE** <https://crystal-display.com/cds-presentation-download/>





Need any additional information?

Our team is always available to help you with pricing details, technical support, or any additional information you may need. Please don't hesitate to reach out.



**CONTACT US**



Crystal Display Systems Ltd  
Unit 6 M2M Park, Fort Bridgewood  
Maidstone Road, Rochester,  
Kent. ME1 3DQ

T : +44(0) 1634 791600  
E : [info@crystal-display.com](mailto:info@crystal-display.com)  
W : [crystal-display.com](http://crystal-display.com)

SPECIALIST GLOBAL SUPPLIERS IN INNOVATIVE LCD  
DISPLAY, TOUCH AND DIGITAL SIGNAGE SOLUTIONS

*E&OE*