

## INDUSTRIAL SOLUTIONS



### **CONRAC 6023 SD**

23" LCD/TFT Ship Display

CONRAC's 6023 SD high resolution multi frequency LCD/TFT-display for shipborne applications is supplied in rack/console mount version and in naked version.

CONRAC GmbH stands for High Performance Displays for specific applications. Own R&D, production and service at the German headquarters guarantee highest quality standards.

The use of high grade industrial components, modular construction, robust aluminium casing and special laminated safety glass panel with high efficiency anti-glare treatment make the displays the perfect choice for 24h operation in demanding applications.

## FEATURES

**Approved to IEC 61174 (ECDIS), EN 60936-1 (Radar) and EN 60945 (Navigation)**

Easy integration in Radar and ECDIS systems

**Wide dimming range backlight converter for day & night application**

Potmeter control of brightness for ease of operation

**Robust seawater resistant aluminium housing treated to protect from corrosion**

Specially designed for use in shipboard applications

**Universal proprietary controller**

Flexible solutions (VGA, CVBS and S-Video inputs)

**High contrast and flicker-free image**

Reduced strain for the user's eyes

**Enhanced shock & vibration resistance as well as extended temperature range**

High lifetime in critical ambient conditions

**Integrated counter for hours of operation**

Easy to plan maintenance

**Conrac electronics and design**

In-house R&D ensures long term availability

**DISPLAY**

Panel type:	Full colour active matrix TFT
Size / Active screen dimensions:	23.1" – 58cm / 470mm (horizontal) x 352mm (vertical)
Resolution:	Multiscan up to 1600 x 1200 (UXGA)
Horizontal frequency:	30 – 80kHz
Vertical frequency:	50 – 85Hz
Pixelclock:	Up to 165MHz
Brightness (dynamic range):	Brightness: <80 mcd/m <sup>2</sup> - > 200 cd/m <sup>2</sup> Filter glass: 90% light transmission
Dimming range:	>2000:1
Contrast ratio:	500:1 typical
Number of colours:	16.7 Mio colours
Viewing angle:	±85° horizontal and vertical
Backlight:	Cold cathode fluorescent lamp (CCFL)
Lamp life time:	50,000 hours @ 25°C ambient temperature, continuous operation

**SIGNAL INPUT / CONNECTORS / SYNCRONISATION**

PC signal input:	PC analog
Connectors:	RGB (PC) input: 15 pin HD-Sub, 5 x BNC RS 232: 9 pin DSub connector
Synchronization:	Sync on green, Composite sync with auto detect Separate H- and V-sync

**CONTROLS**

Keypad and on screen menu
Potmeter control of brightness

**ENVIRONMENTAL CONDITIONS**

Temperature (operating):	-15°C - +55°C
Temperature (non-operating):	-20°C - +60°C
Vibration:	5Hz – 12Hz ± 1.6mm, 12.5Hz – 25Hz ± 0.38mm 25Hz – 50Hz ± 0.1mm
Shock:	10g, 11ms

**POWER**

Power supply:	85 - 264V, 45 - 65Hz, PFC (Power Factor Correction), power connector lockable, additional socket for power output
Power consumption:	<130W
Stand-by function:	Yes

**APPROVALS**

EMI/EMC:	EN55022 class A, EN55024, EN60945
Safety:	EN60950, EN60945, CE
Vibration:	EN60945
Ship Control:	EN61174 (ECDIS), EN60945 (Navigation), EN60936-1 (Radar)

**SUPPLIED ACCESSORIES**

VGA cable 2m, AC power cord 2.5m
Operating Manual

**STANDARD COLOUR**

Standard colour front panel:	RAL 9005 (deep black), non-structured
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VERSIONS

**6023 SD Rack Mount version**

Rack/console mount configuration with IP65 front.  
Integrated beeper and lockable power input and output.

H x W x D: 533mm x 584mm x 98mm  
Weight: 15.5kg



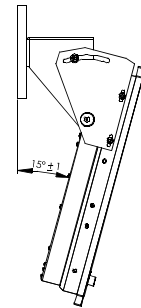
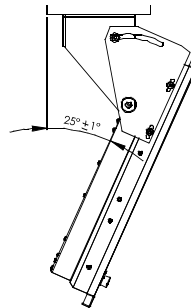
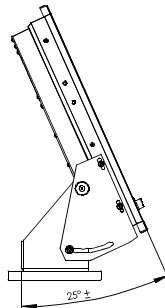
**6023 SD Bracket Mount version**

Rack version with brackets for various mounting solutions.

Table mounted

Ceiling mounted

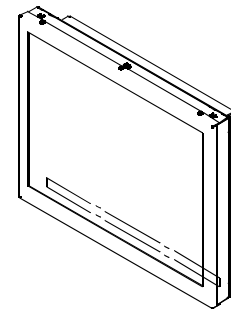
Wall mounted



**6023 SD Naked version**

Special version for integration in consoles or own housings.

H x W x D: 438.2mm x 538.8mm x 107.03mm  
Weight: 16.5kg



**OEM versions**

Customized versions available on request.

**OPTIONS\***

\*Please note: not all options may be combined

24V DC power supply operating from 18V to 32V

Video signal input 15.7kHz CVBS / Y/C video

Digital video signal input DVI-I

Technical specification subject to change without prior notice. GM 260.0260, is\_6023sd\_rev10

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