



# Convex Array Transducer Type 8830 for BK Medical Ultrasound Scanners

## Product Data

### USES

- General abdominal scanning
- Obstetric scanning
- Pediatric scanning
- Interventional procedures
- Tissue harmonic imaging

### BENEFITS

- Broad bandwidth gives excellent image quality
- Fine pitch gives high contrast resolution
- Deep penetration for clear abdominal images
- Ergonomic transducer design for improved operator comfort
- Easy-to-use needle guides for quick, reliable puncture and biopsy procedures
- Built-in control button
- Single-use needle guide available



8830 convex array transducer

### General Description

The 8830 convex array transducer is designed for use with BK Medical ultrasound scanner Flex Focus 1202. 8830 can be used for high resolution B-mode, spectral and CFM Doppler.

### Applications

8830 is a convex array transducer with multifrequency capabilities and a sector angle of 60°.

It is ergonomically designed for the operator. The lightweight and carefully designed handle allows the operator to use a lighter grip, exert less pressure, and thus reduce strain during scanning. Its wide array, scanning angle and penetration depth make the 8830 transducer ideal for general abdominal, fetal Doppler and obstetric examinations.

### Interventional Procedures

The 8830 can use the UA1250 stainless steel needle guide designed for interventional procedures. The UA1250 has a variable bore diameter of 0.6 to 2.4 mm and an angle of insertion of 18°. Single-use needle guides UA0013, are also available with needle guide kit UA1341. UA0013 has a variable diameter of 0.6 to 2.3 mm. The needle may be positioned at a fixed angle of 18° or 36.5° to the image axis using UA0013.

The ultrasound scanner superimposes puncture lines on the scan image to help you guide the needle to its target.

### Multifrequency Imaging

Multifrequency imaging (MFI) is standard on BK Medical scanners. The transducer has a broad bandwidth and transmits at 2.5, 3.5, 5 and 6MHz, giving clear, precise images. The transducer is optimized for tissue harmonic imaging.

### Cleaning and Disinfection

The 8830 (except the plug) can be immersed in a suitable solution (see Specifications).

Needle guide UA1250 can be disinfected by immersion and can be autoclaved. Single-use needle guides must be discarded after use. The UA1341 bracket can be disinfected by immersion in a suitable solution. Sterile transducer covers are available.

### Safety

8830 is designed and tested in accordance with EN60601-1 (IEC60601-1), "Medical Electrical Equipment, General Requirements for Safety." When used with the BK Medical range of scanners, Type B requirements are met.

## Specifications 8830

<p><b>OPERATIONAL FACILITIES</b> Built-in control button</p> <p><b>SAFETY</b> Complies with Type B requirements of EN60601-1 (IEC60601-1)</p> <p><b>FREQUENCY RANGE</b> 2-6MHz</p> <p><b>ENVIRONMENTAL</b> <b>Operating pressure</b> 700-1060 hPa (normal atmospheric pressure) <b>Operating temperature</b> +10 to +40°C (+50 to +104°F) <b>Storage temperature</b> -25 to +70°C (-13 to +158°F)</p>	<p><b>Watertight immersion time</b> Max 15 hours per 24 hours <b>Watertight immersion temperature</b> Max +40°C (+104°F) <b>Resistance to chemicals during disinfection:</b> Immersion (except the plug) for less than 10 minutes in each hour in: ■ Chlorhexidine gluconate (5-20% in water)</p> <p>Immersion (except the plug) in the following solutions, following manufacturer's instructions (but not exceeding maximum watertight immersion time specified for this transducer): ■ Glutaraldehyde (2-3.4 % in water) ■ Wiping with ethanol (70% in water)</p>	<ul style="list-style-type: none"> <li>■ Korsolex® Basic</li> <li>■ Korsolex® Extra</li> <li>■ Cidex® OPA</li> </ul> <p><b>POWER SUPPLY</b> Internally from scanner</p> <p><b>CABLE LENGTH</b> 2.2m (7.2ft)</p> <p><b>TRADEMARKS</b></p> <ul style="list-style-type: none"> <li>■ Cidex OPA is a registered trademark of Advanced Sterilization Products (ASP), a Johnson &amp; Johnson Company.</li> <li>■ Korsolex is a registered trademark of Bode Chemie GmbH.</li> <li>■ Tristel is a registered trademark of Tristel Pharmaceutical.</li> </ul>
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	Units	8830			
		1202			
Center frequency	MHz	2.5	3.5	5	6
Doppler frequency	MHz	2 - 2.5 - 3			
Number of elements		180			
Radius of curvature	mm	61.6			
Transverse plane aperture	mm	13			
Transverse focal length (typical)	mm	65			
Image plane aperture	mm	24			
Image plane focal length	mm	Variable			
Axial resolution (measured at 25 mm)**	mm	0.3	0.4	0.4	0.4
Image field		Sector 60°			
Basic scanning modes		B, M, Doppler, BCFM, Tissue Harmonic imaging			
Penetration depth**(t)	mm	291	269	222	196
Focal range	mm	12-200			
Lateral resolution**	mm	1.1	1.5	1.6	1.6
Frame rate (max)	Hz	>150			
Contact surface (acoustic)	mm	67.5 x 13			
Contact surface (overall)	mm <sup>2</sup>	69 x 19			
Total dimensions	mm	77 x 104 x 27			
Weight (approximate)	g	155			
Applications (typical)		Abdominal, Obstetrics, Fetal, Pediatrics			

\* Values measured in water.

\*\* Measurements according to IEC/TS 61390 and JIS T 1501. Penetration depth is measured at 0.7dB/cm/MHz and recalculated corresponding to a realistic tissue attenuation of 0.5 dB/cm/MHz.

For definition of terms, refer to Acoustic Output Measurement Standard for Diagnostic Ultrasound Equipment, AIUM/NEMA 2004

## Ordering Information 8830

### ACCESSORIES AVAILABLE

- UA1250: Needle guide (bore diameter variable from 0.6 to 2.4mm; angle of insertion 18° to the long axis of the transducer)
- UA1341: Needle guide kit. Contains: 1 reusable bracket, 5 sterile Ultra-Pro 3™ needle guides with transducer cover and gel
- UA0013: Sterile Ultra-Pro 3™ needle guides (pack of 24)
- KE4300: Carrying case

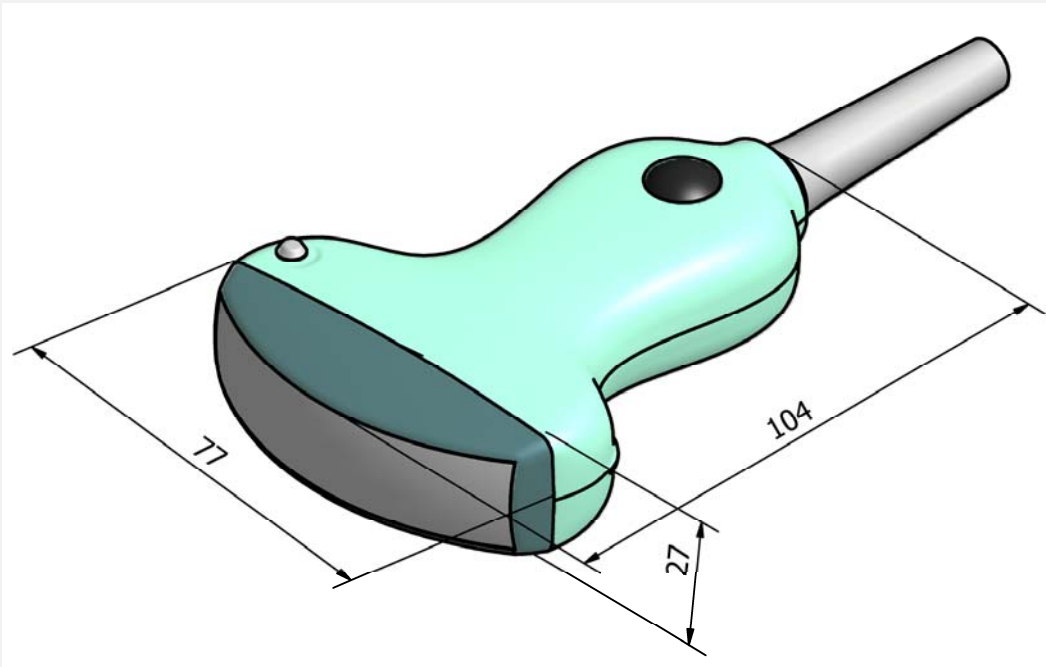
### TRANSDUCER COVERS

- UA0004: Sterile cable covers (pack of 24)
- UA0007: CIV-Flex™ sterile (pack of 24)
- UA0009: CIV-Flex™ sterile (pack of 24)
- UA0070: CIV-Flex™ latex-free (pack of 24)
- UA0072: Surgi-Tip, sterile latex (pack of 12)
- UA0076: CIV-Flex™, latex-free (pack of 24)

CIV-Flex is a registered trademark of CIVCO Medical Instruments Co., Inc.

## 8830 Technical Drawings

All measurements are in mm



### UA1250

- Weight: 40 g
- Dimensions: 38 x 39 x 45 mm
- Material: Stainless steel AISI303



### UA1341 with Single-use Needle Guide UA0013

- Weight: 8 g
- Dimensions: 40 x 31 x 39 mm
- Material: Polyoxymethylene plastic (POM)

