



Transducer Type 8848 for BK Medical Ultrasound Scanners

Product Data

USES

- Prostate brachytherapy
- Transrectal scanning
- Transperineal puncture
- Transvaginal scanning
- Prostate cryotherapy
- Spectral and CFM Doppler examinations
- Contrast imaging with Pro Focus 2202*
- HistoScanning (tissue visualization)**

BENEFITS

- Superior image quality and resolution
- Simultaneous biplane visualization
- Long linear array ideal for dynamic endovaginal scanning of the urethra
- Multifrequency imaging
- Built-in control buttons
- Needle guide for perineal puncture
- Compatible with modern sterilization methods



Transducer 8848

General Description

The 8848 is a simultaneous biplane transducer designed for use with the BK Medical Pro Focus 2202 and Flex Focus 1202 ultrasound scanners. It has a convex array for transverse scanning and a linear array for sagittal scanning. These arrays can be used simultaneously for greater orientation and depth information.

The convex array has a sector angle of 140°. With the Expanded Sector feature, the sector angle is widened to approximately 180° providing an even better view.

Applications

The 8848 is designed for transrectal scanning and is particularly useful for prostate brachytherapy and cryotherapy. The 8848 provides a clear picture enabling precise volume studies and assisting in treatment planning.

When using the simultaneous biplane feature, you are able to view two planes at once with a single transducer,

and this helps determine the true position of the needle and its tip during puncture and biopsy.

The 8848 is excellent for pelvic floor examinations. Endovaginal scanning, while the patient performs valsalva or squeeze maneuvers, is very useful for a dynamic assessment of the pelvic floor and urethral function.

Interventional Procedures

The UA1232 metal puncture attachment is designed for transperineal puncture of the prostate. It consists of a needle guide and a mounting ring with a lock screw. The needle guide has nine parallel guide channels, spaced 5mm apart, each with an internal diameter of 2.1mm (14gauge). The guide channels are angled at 0° to the transducer's longitudinal axis and 90° to the transverse scanning plane. The needle guide can be adjusted 90mm lengthwise with respect to the mounting ring, using the adjustment screw.

Brachytherapy stepping units are an important accessory to the 8848. The stepping unit allows the transducer to be held stable during perineal puncture, radioactive source implantation and cryotherapy.

The CIVCO AccuCare stepper units (UA 2000 and 2001) are compatible with the 8848.

Multifrequency Imaging

Multifrequency imaging (MFI) is standard on BK Medical scanners. The 8848 has a broad bandwidth of 4-12 MHz. It can be used for tissue harmonic imaging and contrast imaging (contrast imaging with the Pro Focus 2202 ultrasound scanner only).

Cleaning and Disinfection

The 8848 transducer and UA1232 puncture attachment can be disinfected by immersion in the solutions listed under Specifications and can be processed using STERRAD® 50, 100S, 200 systems and STERIS SYSTEM 1® ***. UA1232 can also be autoclaved.

Sterile transducer covers are available.

Safety

The 8848 is designed and tested in accordance with EN60601-1 (IEC60601-1), "Medical Electrical Equipment, General Requirements for Safety." When used with BK Medical's ultrasound scanners, Type BF requirements are met.

* In the USA, contrast-enhanced ultrasound has not been market cleared by the FDA, with the exception of only select cardiac imaging applications.

** HistoScanning has not been market cleared by the FDA for use in the USA.

*** STERIS SYSTEM 1 is not market cleared in the USA.

Specifications 8848

<p>OPERATIONAL FACILITIES Two built-in control buttons</p> <p>SAFETY When used with BK Medical's ultrasound scanners, this transducer complies with Safety Standard EN60601-1 (IEC60601-1) Type BF</p> <p>FREQUENCY RANGE 4-12MHz (depending on scanner)</p> <p>ENVIRONMENTAL Operating pressure 700-1060 hPa (normal atmospheric pressure) Operating temperature +10 to +40°C (+50to +104°F) Storage temperature -25to+70°C (-13to+158°F) Watertight immersion temperature Max +40°C (+104°F) Watertight immersion time Max 15 hours per 24 hours Resistance to chemicals during</p>	<p>disinfection: Immersion for less than 10 minutes in each hour in: ■ Chlorhexidine gluconate (5-20%)</p> <p>Immersion 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) ■ Korsolex® Basic ■ Korsolex® Extra ■ Tristel® ■ PeraSafe®/ PeraSafe LG ■ Cidex® OPA ■ Ethanol 70% ■ Ethanol 70% (wiping only) ■ Isopropanol 70%</p> <p>■ Transducer can be processed using STERIS SYSTEM 1®.*</p> <p>■ STERRAD® 50, 100S and 200 systems can also be used</p>	<p>POWER SUPPLY Internally from the scanner</p> <p>CABLE LENGTH 2.3m (7.5ft)</p> <p>TRADEMARKS ■ Korsolex is a registered trademark of Bode Chemie GmbH. ■ Tristel is a registered trademark of Tristel Pharmaceutical. ■ PeraSafe is a registered trademark of Antec International. ■ STERRAD and Cidex OPA are registered trademarks of Advanced Sterilization Products (ASP), a Johnson & Johnson Company. ■ STERIS and STERIS SYSTEM 1 are registered trademarks of STERIS Corporation.</p> <p>*STERIS SYSTEM 1 is not market cleared in the USA</p>
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	Units	Scanner Type											
		2202						1202					
Scanning plane		transverse			sagittal			transverse			sagittal		
B-mode center frequency	MHz	6	9	12	6	9	12	6	9	12	6	9	12
Doppler frequency	MHz	5	6	7.5	5	6	7.5	5	6	7.5	5	6	7.5
Contrast frequency	MHz	4 and 4.3						NA					
Number of elements		128			192			128			192		
Radius of curvature	mm	9.3			-			9.3			-		
Transverse plane aperture	mm	5.5											
Transverse focal length (typical)	mm	40											
Image plane aperture	mm	11.5			21.8			11.5			21.8		
Image plane focal length	mm	Variable											
Axial resolution*	mm	0.5	0.4	0.5	0.4	0.3	0.3	0.5	0.4	0.5	0.5	0.5	0.5
Lateral resolution*	mm	1.6	1.5	1.5	0.9	0.9	0.8	1.7	1.3	1.2	1.1	1	1
Image field		140°			65 mm			140°			65 mm		
B-mode image field including expanded sector		180°			65 mm + 15° each side			180°			65 mm + 15° each side		
Basic scanning modes		B, M, Doppler, CFM, Tissue Harmonic Imaging, Contrast Imaging**											
Penetration depth*	mm	83	74	58	103	82	74	90	73	63	100	86	82
Focal range	mm	3-60											
Frame rate (max)	Hz	>150											
Contact surface (acoustic)	mm	23 x 5.5			65 x 5.5			23 x 5.5			65 x 5.5		
Contact surface (overall)	mm ²	127			357			127			357		
Total dimensions	mm	352.5 x 32.4											
Size of handle	mm	150 x 32.4											
Weight (approximate)	g	250											
Applications (typical)		Transrectal, Transvaginal											

*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. Axial resolution (measured at 25mm)

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Ordering Information 8848

ACCESSORIES AVAILABLE

- UA1232: Puncture attachment (bore diameter 2.2mm; angle of insertion 0° to the long axis of the transducer)
- UA0059: Endocavity standoff kit
- UA2000: CIVCO Classic Stepper and stand (18G)
- UA2001: CIVCO Classic Stepper and stand (17G)
- UA2010: EXII Tracked Stepper and stand (18G)
- UA2011: EXII Tracked Stepper and stand (17G)
- UA0513: Magnetic Wheel Mover
- UA0510: Adapter ring for use with UA0513
- KE4325: Carrying case for 8848

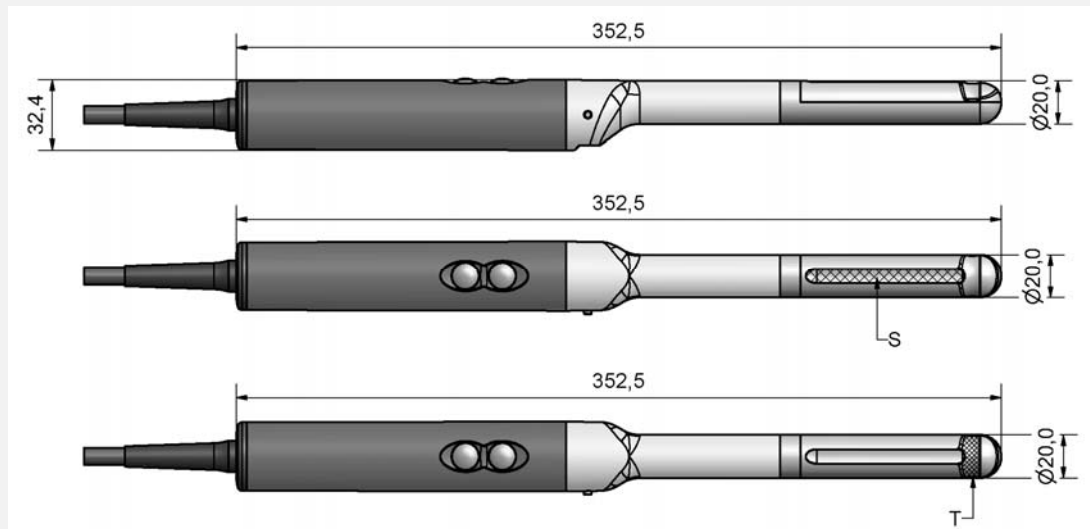
TRANSDUCER COVERS

- UA0005: Sterile latex (pack of 24)
- UA0008: CIV-Flex™ sterile, Latex-free (pack of 24)

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

8848 Technical Drawings

All measurements are in mm



Puncture Attachment UA 1232

- Weight: 107 g
- Dimensions: 90 x 90 x 45 mm
- Material: stainless steel AISI303

