

Standard Delivery Scope

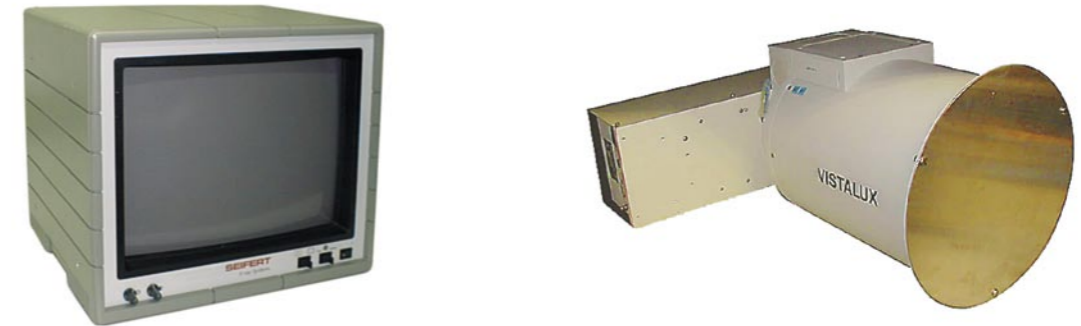
- X-ray image intensifier RBV23-3M (tube size 9")
- High resolution CCD television camera TM 765 E
- Camera holder for CCD camera
- Objective 35 mm with C-mount adapter
- Tandem optic with first surface mirror
- High quality RODENSTOCK- lens for the tandem optic
- Television monitor, B/W, 44 cm screen diagonal
- Coax / video cable, length 10 m, BNC / BNC

Options

- Mounting plate for image intensifier
- Monitor support, tiltable, to be mounted to radiosopic cabinet, incl. supporting frame
- Stand for monitor support
- Converter from 50 Hz video signal to 100 Hz video signal
- CCD camera, alternatively to the standard version:
 - CCD camera TM-745 E (60 Hz version)

SEIFERT VISTALUX 9S3-CCD

Image Intensifier / Television System



General

The image intensifier television system VISTALUX is used as converter of X-rays into a standard video image.

The conversion of the optical image at the output screen of the image intensi-

fier into a video image is accomplished by a CCD camera. The radiosopic image is then displayed on a (b/w) television monitor.

The high technical standard of the monitor series guarantees a reliable continuous operation even in case of toughest application circumstances.

• **Image Intensifier**

- High detail resolution
- Large image contrast
- High radiation sensitivity
- Low inherent filtration
- Long life and high stability
- Mechanically insensitive due to all-metal ceramic technology

• **CCD Television Camera**

- High quality image
- Excellent modulation transfer function (MTF)
- Long life and high stability
- High resistance against electro-magnetic interference
- Precise image geometry
- Low lag and little sticking

• **Industrial television monitor**

- High detail resolution even into the corners of the picture
- Overscanning / underscanning
- Change-over of the constants for recording operation
- 100 Hz mode with respective video signal

- Produced under ISO 9001 certified quality management system

Technical Data

Image Intensifier

Tube Type	RBV 23-3M (All-metal ceramic design)
Nominal input diameter	230 mm (9.0") (IEC 520, DIN 6825)
Useful input image	215 mm (8.5")
<small>(Maximum diameter of object projection in the input plane of the I.I.housing at a focus-image intensifier distance of 1 m (39.4"))</small>	
Input field with electronic zoom [mm (inch)]	170 mm (6.7") (Magn. 2) / 130 mm (5.1") (Magn. 2)
Diameter of output image	25 mm (0.99")
Input window	Al
Operating temperature	+5 °C ... +40 °C

Typical image transfer characteristics

	Normal	Magn. 1	Magn. 2
Entrance field size [mm (inch)]	215 (8.5)	170 (6.7)	130 (5.1)
Viewable input screen area at the monitor screen			
in [mm (inch)] approx.,			
horizontally (A)	195 (7.7)	145 (5.7)	120 (4.7)
vertically (B)	152 (6.0)	115 (4.5)	90 (3.5)
diagonal (C)	210 (8.3)	165 (6.5)	130 (5.1)

Visual minimum resolution (center)*
 image intensifier only ** [LP/mm]
 total system [LP/mm]

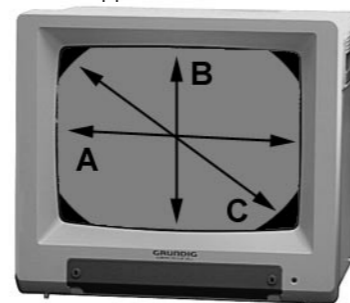
Conversion factor	$\left[\frac{\text{cd} \cdot \text{s}}{\text{m}^2 \cdot \mu\text{Gy}} \right]$	17	10	5,0
	$\left[\frac{\text{cd} \cdot \text{s}}{\text{m}^2 \cdot \text{mR}} \right]$	148	87	44

Weight 21 kg (46,2 lbs)

* 100 µm lead test directly at the input, radiation quality 60 kV without filter

** Visual resolution is measured with a microscope at the image intensifier output directly.

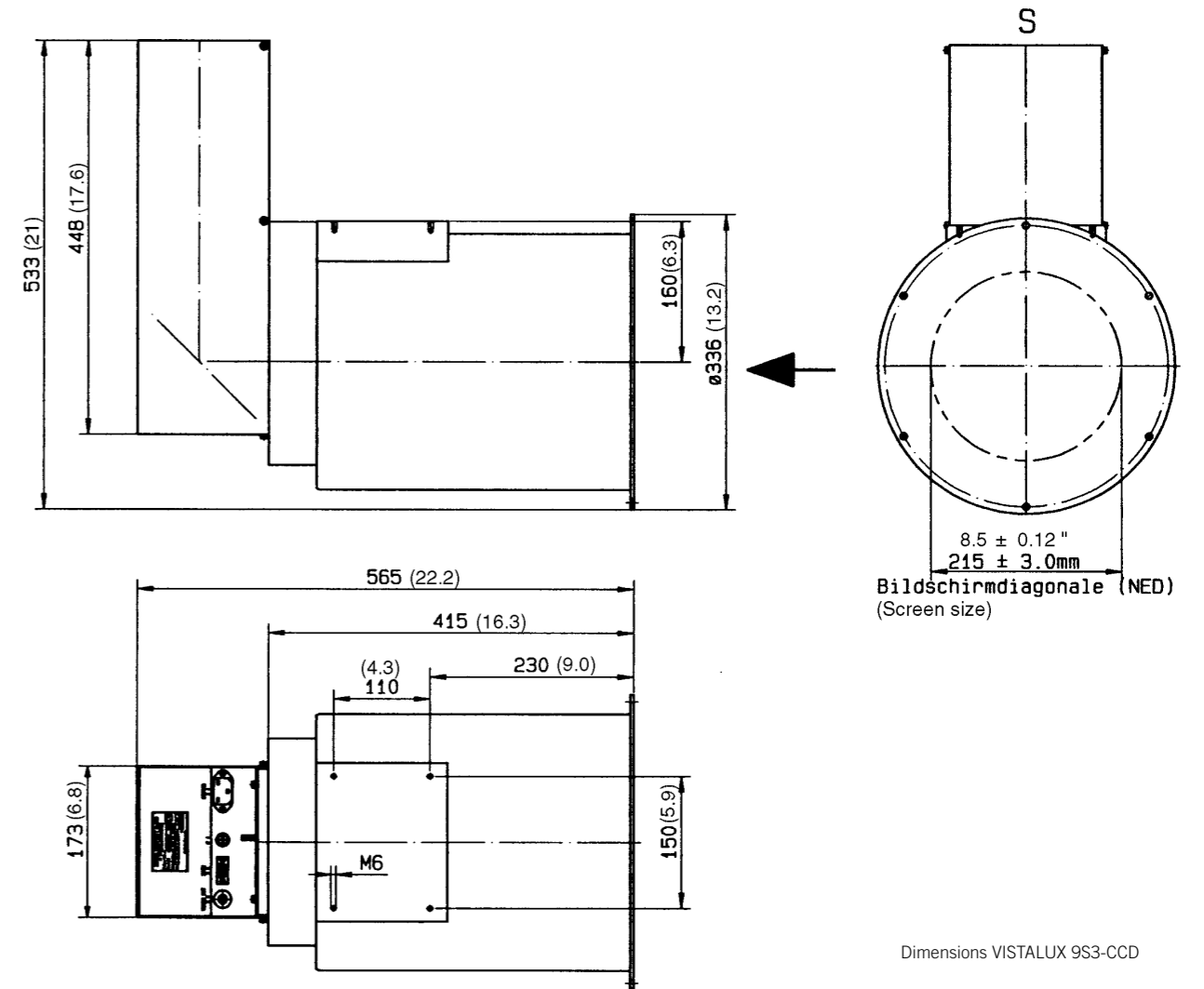
The resolution of the TV system is not reflected.



CCD Camera Type TM-765-E

Pick-up device	Interline transfer CCD
Picture elements of CCD	756 (H) x 581 (V)
Sensing area	8.8 mm x 6.6 mm (2/3")
Lens mount	C mount
Video signal	CCIR 50Hz
Video output	1.0Vpp sync negative, 75 Ohm unbalanced
H/V resolution	560 (TV) lines ; picture elements 739 H
Operating temperature	0 - 40° C

Total weight of VISTALUX system (without monitor) approx. 36 kg (79.2 lbs)



Dimensions VISTALUX 9S3-CCD

Television Monitor Type VM 4427-T / VM 4427-E

Screen size	44 cm (approx. 17")
TV line standards	525 lines / 60 Hz 625 lines / 50 Hz
Video inputs	BNC connector 1 Vpp +/- 30% BAS, asymmetric at 75 Ohm terminal load switchable (75 Ohm / 1 kOhm) 1 loop-through output
Operating temperature	+5 to +50° C
Power supply	100 V _{AC} - 250 V _{AC}
Weight	approx. 19 kg (41.8 lbs), desktop version VM 4427-T approx. 17 kg (37.4 lbs), rack-mount version VM 4427-E