

Standard Delivery Scope

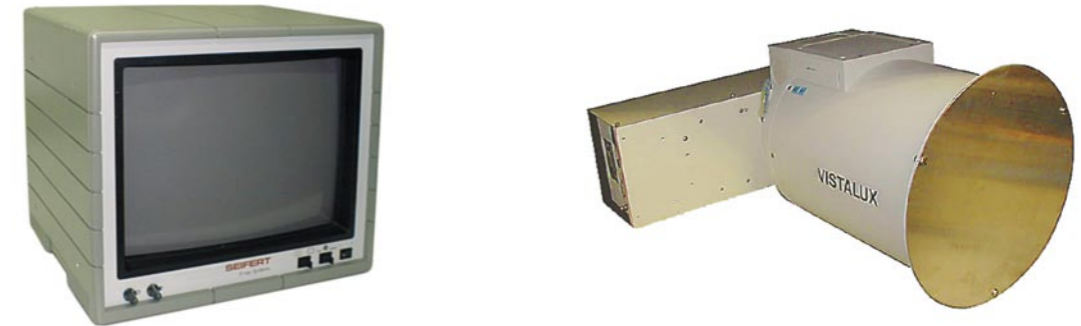
- X-ray image intensifier RBV33-4M (tube size 13")
- High resolution CCD television camera TM 765 E
- Camera holder for CCD camera
- Objective 35 mm with C-mount adapter
- Tandem optic with first surface mirror
- High quality RODENSTOCK- lens for the tandem optic
- Television monitor, B/W, 44 cm screen 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 13S4-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 intensifier 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

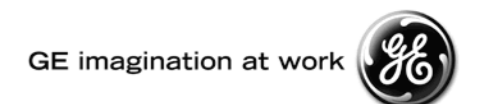
• CCD Television Camera

- High quality image
- Excellent modulation transfer funktion (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
- 100Hz mode with respective video signal

- Produced under ISO 9001 certified quality management system



Technical Data

Image Intensifier

Tube Type RBV 33-4 M (All-metal ceramic design)
 Nominal input diameter 330 mm (13.0") (IEC 520, DIN 6825)
 Useful input image 304 mm (12.0")

(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"))

Input field with electronic zoom [mm (inch)] 220 (8.7) / 170 (6.7) / 133 (5.2) (Magn. 1 / 2 / 3)
 Diameter of output image 30 mm (1.2")
 Input window Al
 Operating temperature +5 °C ... +40 °C

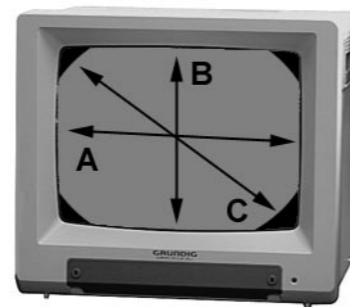
Typical image transfer characteristics

	Normal	Magn. 1	Magn. 2	Magn. 3
Entrance field size [mm (inch)]	304 (12.0)	220 (8.7)	170 (6.7)	133 (5.2)
Viewable input screen area at the monitor screen in [mm (inch)] approx.,				
horizontally (A)	260 (10.2)	190 (7.5)	145 (5.7)	110 (4.3)
vertically (B)	215 (8.5)	155 (6.1)	120 (4.7)	95 (3.7)
diagonal (C)	300 (11.8)	220 (8.7)	170 (6.7)	130 (5.1)
Visual minimum resolution (center)* image intensifier only ** [LP/mm]	4,2	5,0	5,6	6,0
total system [LP/mm]	1,2	1,8	2,2	2,5

Conversion factor $\left[\frac{\text{cd} \cdot \text{s}}{\text{m}^2 \cdot \mu\text{Gy}} \right]$	35	16	10	6,0
$\left[\frac{\text{cd} \cdot \text{s}}{\text{m}^2 \cdot \text{mR}} \right]$	305	139		

Weight 30 kg (66 lbs)

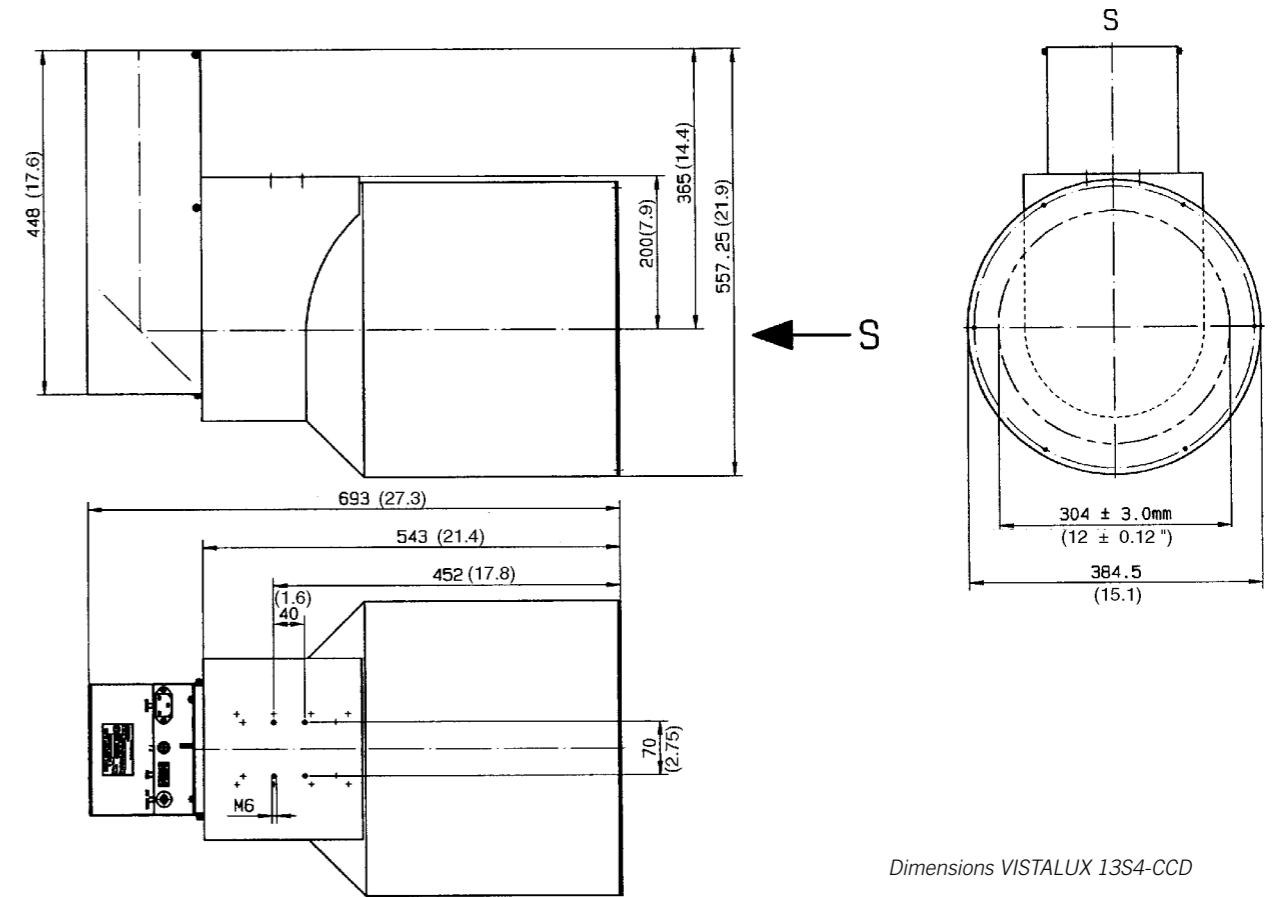
* 100 µm lead test directly at the input, radiation quality 60kV without filter
 ** Visual resolution is measured with a microscope at the image intensifier output directly.
 The resolution of the TV system is not reflected.



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. 43 kg (94.6 lbs)



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