

Highlights 2018

Edition 1/2018



Navigation

STORZ
KARL STORZ – ENDOSKOPE





NAV1[®] electromagnetic

For precise navigation in FESS and ear surgery

- Low follow-up costs thanks to reusable EM instruments in proven KARL STORZ quality*
- High precision thanks to sensors in the instrument tips
- Compact design for easy integration into the OR
- Customized enhancement possible thanks to optical measurement technology
- User-friendly control concept with few interaction steps
- Possible to update NAV1[®] SINUSTRACKER™ planning software, the navigated endoscope and the navigated shaver tracker
- Planning and monitoring of risk structures with intraoperative Distance Control
- Automatic and reliable documentation of the navigated procedure

* Up to 30 applications guaranteed

Benefits of electromagnetic instruments as compared to optical navigation:

- No restrictions as no clear line of sight to the instruments is required unlike optical measurement systems
- All electromagnetic instruments can therefore be rotated and utilized according to the surgeon's preferences (particularly advantageous for endoscopically assisted bimanual operating techniques)
- Electromagnetic instruments can be manually manipulated to allow intraoperative adjustment to a specific anatomical surgical field
- Less space required through the omission of an optical camera with a videocart and/or mobile stand

40 820001 NAV1® ELECTROMAGNETIC
including:
NAV1® Module
NAV1® ELECTROMAGNETIC Module
NAV1® ELECTROMAGNETIC Field Generator
Headband, for navigation, for single use
EM Patient Tracker
EM Probe
2x **Mains Cord**, length 300 cm
Module Connecting Cable
Optical Mouse

Electromagnetic Navigated Instruments for FESS Surgery



40 8201 05 EM Probe,
with atraumatic tip, bayonet-shaped,
for patient registration, working length 10.5 cm,
cable length 250 cm, **autoclavable**, for use with
NAV1® ELECTROMAGNETIC



40 8201 10 EM Probe,
with atraumatic tip, malleable, straight,
working length 8.5 cm, tip diameter 1.7 mm,
cable length 250 cm, **autoclavable**, for use with
NAV1® ELECTROMAGNETIC



40 8201 12 EM Probe,
with atraumatic tip, malleable, curved 63°,
working length 8.5 cm, tip diameter 1.7 mm,
cable length 250 cm, **autoclavable**, for use with
NAV1® ELECTROMAGNETIC



40 8201 11 EM Frontal Sinus Probe,
with atraumatic tip, curved 77°, working length 7 cm,
tip diameter 1.2 mm, cable length 250 cm,
autoclavable, for use with NAV1® ELECTROMAGNETIC



40 8201 45 EM Suction Tube,
straight, with cut-off hole, LUER, outer diameter
3.5 mm, working length 10 cm, cable length 250 cm,
autoclavable, for use with NAV1® ELECTROMAGNETIC



40 8201 65 EM Suction Tube,
curved 60°, with cut-off hole, LUER, outer diameter
3.5 mm, working length 10 cm, cable length 250 cm,
autoclavable, for use with NAV1® ELECTROMAGNETIC



40 8201 31 EM Antrum Curette,
oblong, small, length 19 cm, cable length 250 cm,
autoclavable, for use with NAV1® ELECTROMAGNETIC



40 8201 32 EM Frontal Sinus Curette,
curved 55°, oval, forward cutting, length 18 cm,
cable length 250 cm, **autoclavable**, for use with
NAV1® ELECTROMAGNETIC



40 8201 30 EM Frontal Sinus Curette,
curved 90°, oval, forward cutting, length 18 cm,
cable length 250 cm, **autoclavable**, for use with
NAV1® ELECTROMAGNETIC

Electromagnetic Navigated Instruments for Ear Surgery



40800100 **Bone Anchor**, for KARL STORZ navigation, **autoclavable**, for use with Patient Tracker, Patient Tracker II, Patient Tracker III or EM Patient Tracker



40820086 **EM Patient Tracker**, with verification adaptor and fixation screw, dimensions 55 x 30 x 8 mm, cable length 250 cm, **autoclavable**, for use with NAV1® ELECTROMAGNETIC

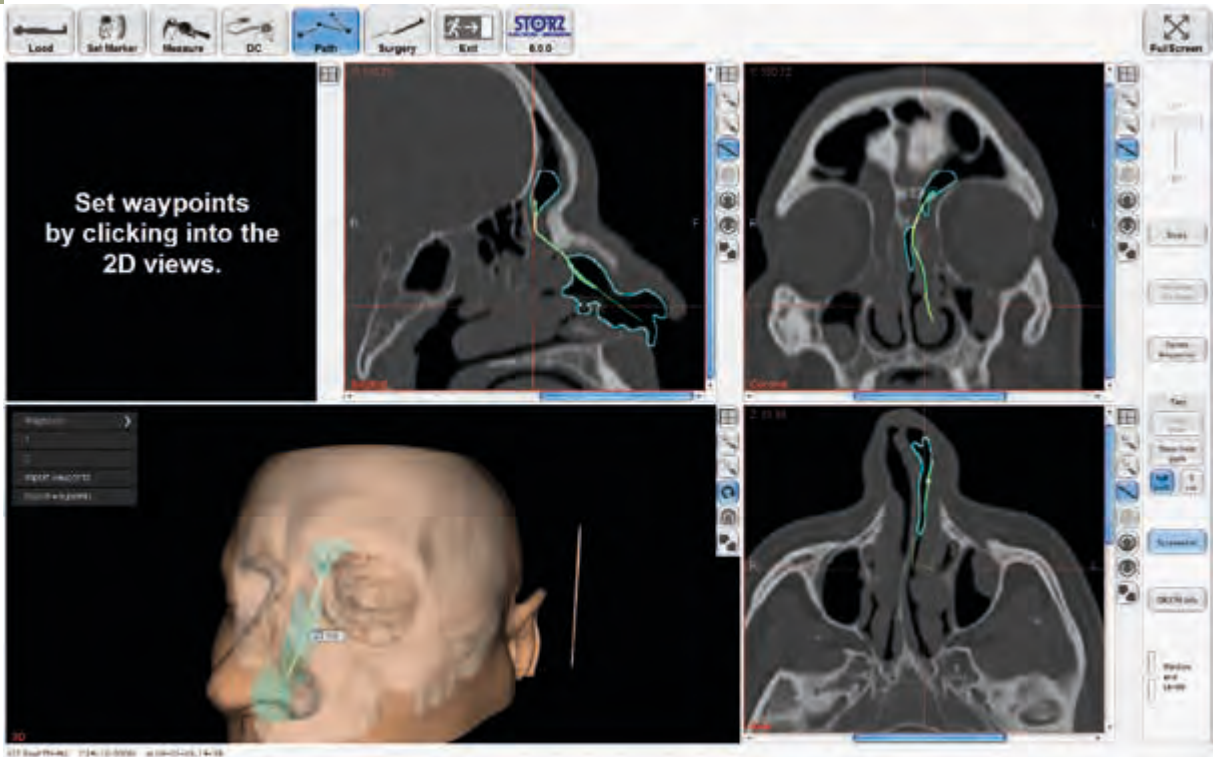


40820105 **EM Probe**, with atraumatic tip, bayonet-shaped, for patient registration, working length 10.5 cm, cable length 250 cm, **autoclavable**, for use with NAV1® ELECTROMAGNETIC



40820112 **EM Probe**, with atraumatic tip, malleable, curved 63°, working length 8.5 cm, tip diameter 1.7 mm, cable length 250 cm, **autoclavable**, for use with NAV1® ELECTROMAGNETIC

39556 A **Wire Tray**, provides safe storage of up to 4 EM navigation instruments (**408201 xx**) and one EM patient tracker during cleaning and sterilization, external dimensions (w x d x h): 460 x 150 x 80 mm



NAV1® SinusTracker™

The innovative planning software for new routes in FESS surgery

The NAV1® SINUSTRACKER™ planning software enhances the KARL STORZ NAV1® ELECTROMAGNETIC system with the automatic planning of access paths in paranasal sinus and skull base surgery. On the basis of a preoperatively set starting and destination point in the patient's radiological data, the software allows the surgeon to determine a precise access path that is specially adapted to the individual anatomic structures of the patient.

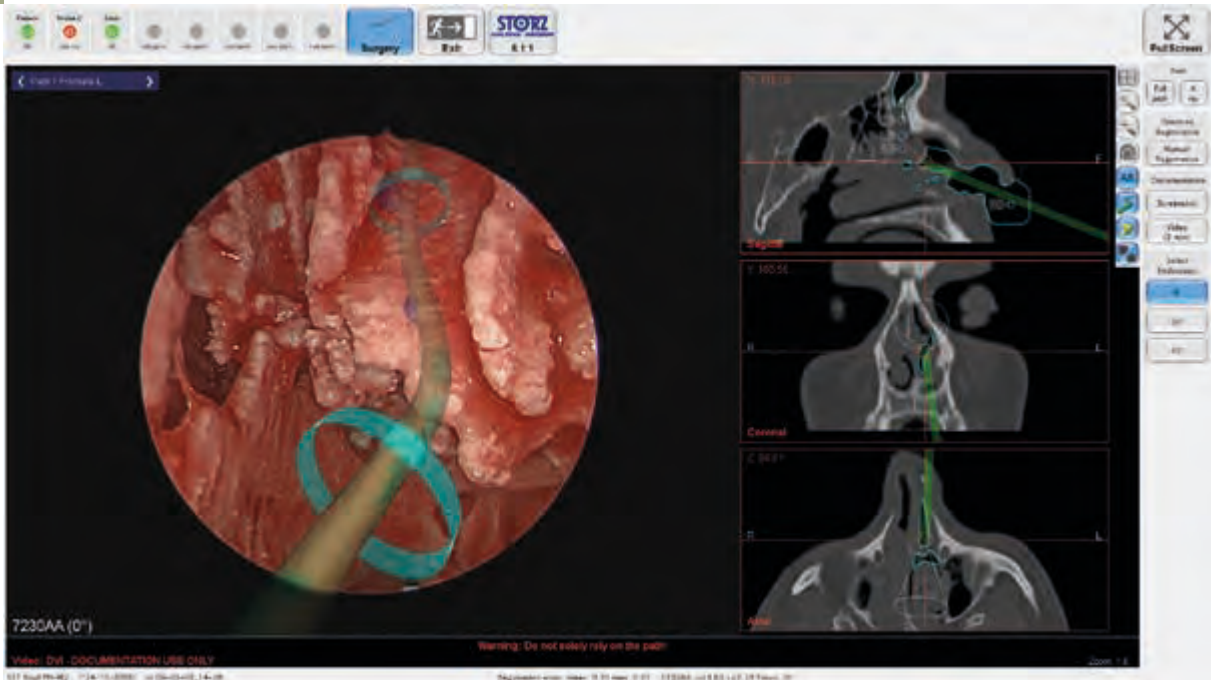
The physician then reviews and modifies the suggested access path at his/her discretion. Intraoperatively, the selected route is visualized on the navigation screen so that the actual position in the site is under constant control.

Benefits of the NAV1® SINUSTRACKER™

- Multiple Path Planning enables the preoperative planning and naming of up to eight access paths and alternatives
- Intraoperative visualization and control of access paths
- Less preoperative planning required thanks to automatic preplanning
- Flexible, pre- and intraoperative adaptation of the access path possible



40810600 **SINUSTRACKER™**, additional software module for the NAV1® family, compatible with software version 6.0.0 or higher



NAV1® Endoscope Tracker

Augmented FESS endoscopy with the new electromagnetic navigated endoscope adaptor

Using augmented endoscopy, which was specially developed for the NAV1® SINUSTRACKER™, the real-time endoscopic image can be enhanced with information obtained from the preoperative virtual planning of the access route. Adaptor **40 8201 50** is used in conjunction with KARL STORZ HOPKINS® telescopes with 0° (7230 AA), 30° (7230 BA) or 45° (7230 FA) directions of view for augmentation. The position and direction of view of the employed telescope is displayed in the radiology images in such a way that the endoscopic image can be precisely assigned to the exact location in-situ.

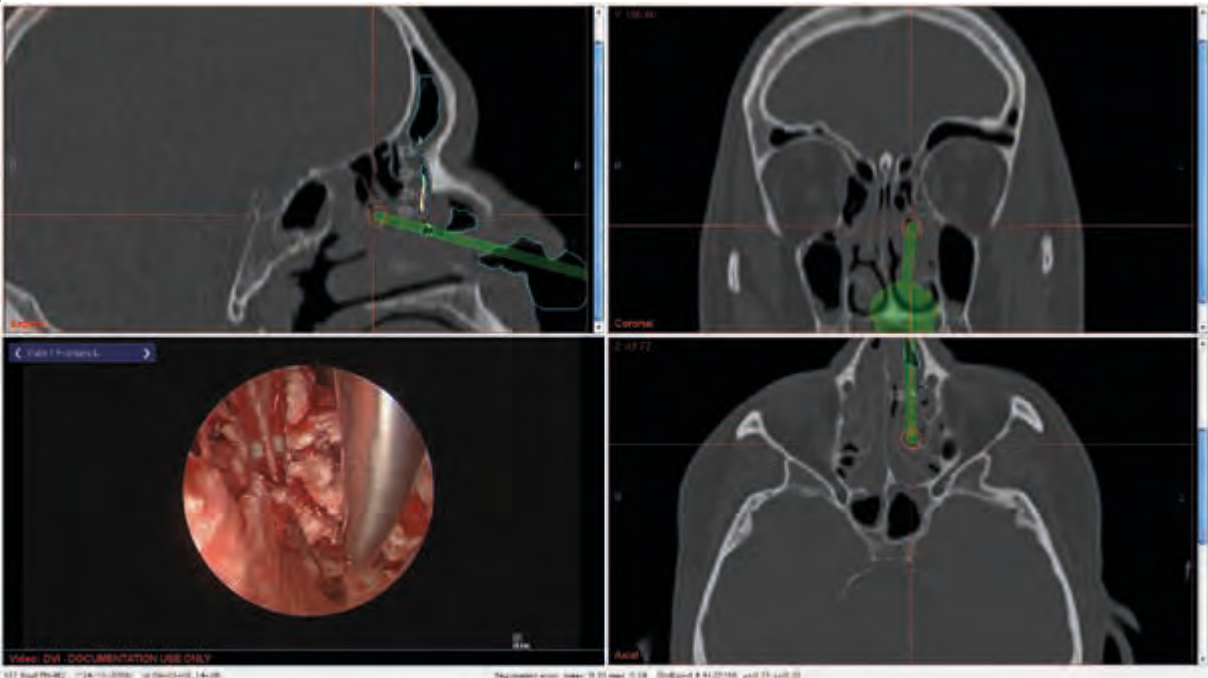
Benefits of augmented endoscopy

- Possible to display planning elements in the standard endoscopic image
- Visual navigation of non-navigated instruments along the preoperatively planned route
- Spatial mapping of the direction of view and the position of the telescope in the site



40820150 EM Endoscope Tracker, universal, cable length 250 cm, reusable 30 times, for use with NAV1® ELECTROMAGNETIC **40820001**, HOPKINS® Telescope 0° 7230 AA, HOPKINS® Telescope 30° 7230 BA, HOPKINS® Telescope 45° 7230 FA, SINUSTRACKER™ **40810600**

(The telescope displayed here is not included in delivery)



EM Shaver Tracker

The new EM shaver tracker allows the electromagnetic navigation of motorized standard shaver blades and sinus burrs.

Benefits of EM-navigated shaver blades and sinus burrs:

- Reusable tracker (up to 30 applications guaranteed)
- Customary handling of the shaver blades and sinus burrs by attaching the shaver tracker to the rotary wheel of the blade or burr
- Automatic detection of rotation
- Visualized geometry and ablation radius of the shaver attachments
- Precise locking to shaver blade to achieve greater accuracy



40820123 **EM Shaver Tracker**, reusable, cable length 200 cm, reusable 30 times, for use with NAV1® ELECTROMAGNETIC, DRILLCUT-X® II and DRILLCUT-X® II N

(The shaver handpiece shown here is not included in delivery)



NAV1® optical

The optical navigation system for FESS and ear surgery without any single-use products

Benefits of NAV1® OPTICAL

- Seamless integration as the basic unit can be attached to a ceiling supply unit or equipment cart
- Very economic thanks to patented autoclavable and therefore reusable glass spheres and instruments
- User-friendly interface – short learning curve thanks to clearly defined control elements and menu navigation
- Wide range of conventional as well as motor-driven navigation instruments in the proven KARL STORZ quality
- NAV1® ELECTROMAGNETIC module enables customized enhancement thanks to optical measurement technology

- 40810001 NAV1® OPTICAL**
including:
NAV1® Module
Navigation Camera
Stand, mobile
Module Connecting Cable, length 750 cm
Headband for Navigation, for single use
Patient Tracker III
Navigation Probe
Mains Cord
Optical Mouse

Optical Navigated Instruments for FESS Surgery



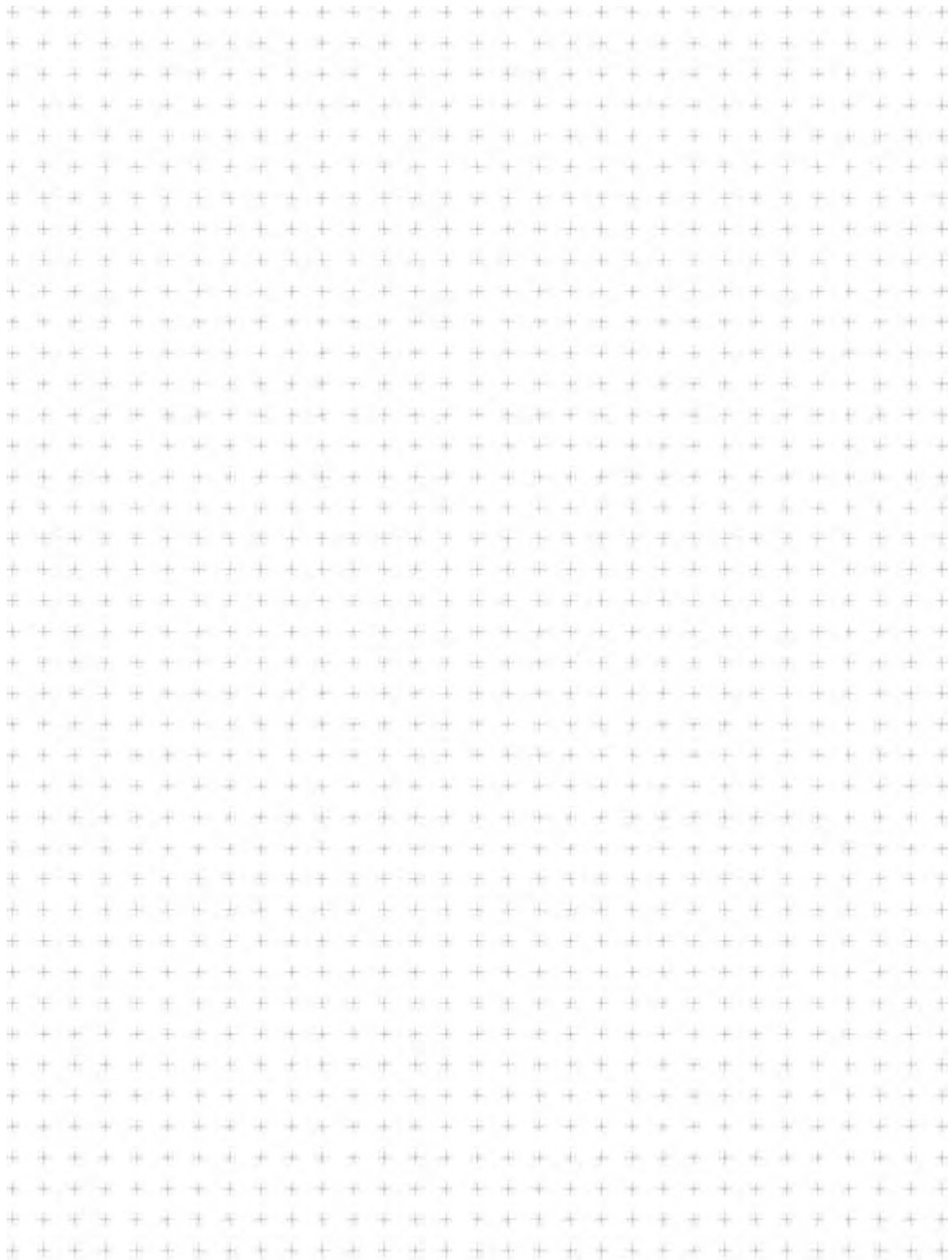
- 40800088 Patient Tracker III**,
with verification adaptor, 3 incorporated glass marker
spheres and fixation screw, **autoclavable**,
dimensions: 80 x 60 x 12 mm, for use with NAV1® PICO
and NAV1® OPTICAL

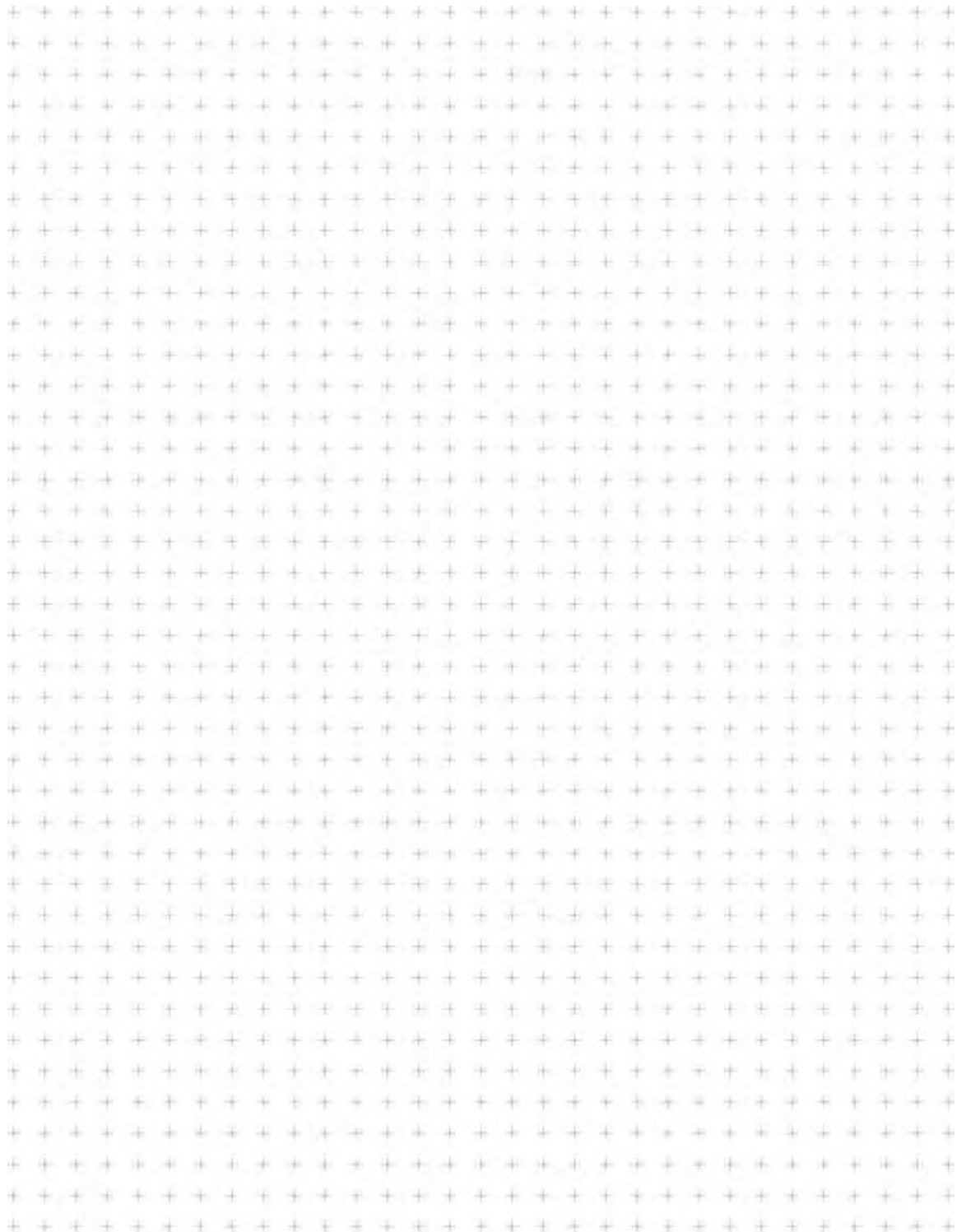


- 40800110 Navigation Probe**,
with 3 fixed glass marker spheres, **autoclavable**,
dimensions: 295 x 15 x 30 mm, for use with
NAV1® PICO and NAV1® OPTICAL



- 40800111 Optical Navigated Frontal Sinus Probe**,
for use with NAV1® PICO, NAV1® OPTICAL and Tool
Tracker **40800120**





It is recommended to check the suitability of the product for the intended procedure prior to use.



STORZ
KARL STORZ—ENDOSKOPE

THE DIAMOND STANDARD



KARL STORZ SE & Co. KG
Dr.-Karl-Storz-Straße 34, 78532 Tuttlingen/Germany
Postbox 230, 78503 Tuttlingen/Germany
Phone: +49 (0)7461 708-0
Fax: +49 (0)7461 708-105
E-Mail: info@karlstorz.com
www.karlstorz.com