

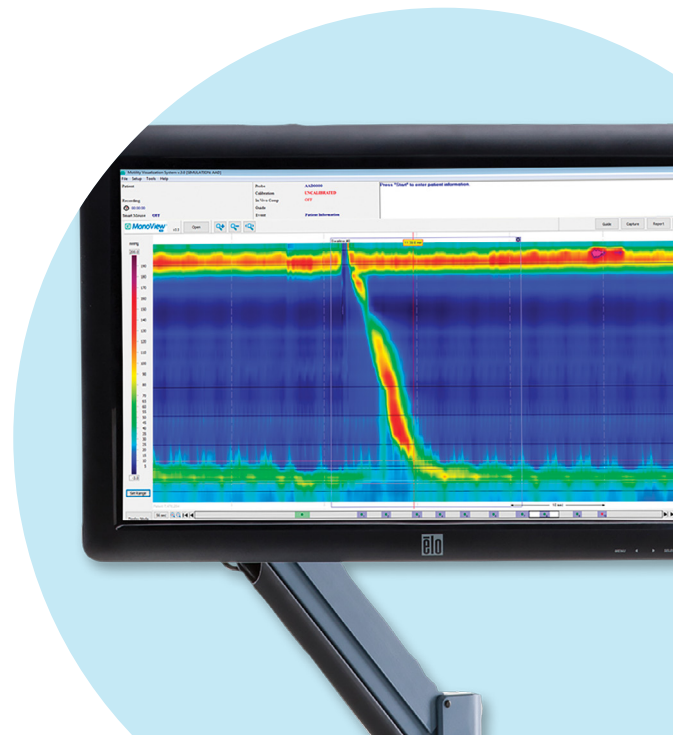
Medtronic



# Advanced evaluation of esophageal motility disorders

**ManoScan™ esophageal manometry system**

High resolution and 3D esophageal manometry





## Advanced evaluation of esophageal swallowing disorders

The ManoScan™ esophageal manometry system allows you to map, display, and evaluate esophageal motor function. This procedure precisely quantifies the contractions of the esophagus and its sphincters,<sup>1</sup> providing the clinician with comprehensive data for the assessment for esophageal motility disorders.

### Advantages over conventional manometry

- Can be performed in less than 30 minutes<sup>2</sup>
- Depicts data in spatiotemporal contour plots
- **Provides useful information with enhanced sensitivity to aid in the diagnosis** of conditions such as achalasia<sup>3</sup>
- Provides benefit in assessing which patients undergoing evaluation for antireflux surgery are more likely to develop late postoperative dysphagia<sup>4</sup>

## Full featured workstation

Pressure and impedance data are downloaded to the workstation for review and diagnosis. The full-featured ManoScan™ ESO workstation includes:

- Portable cart system
- LCD flat panel touchscreen with articulating arm
- Modular data acquisition controller
- Windows® based operating system
- LAN connection and WiFi-enabled
- Integrated catheter auto-calibration system
- Large lockable wheels
- Patient isolation transformer
- High-speed quality printer

## ManoView™ software

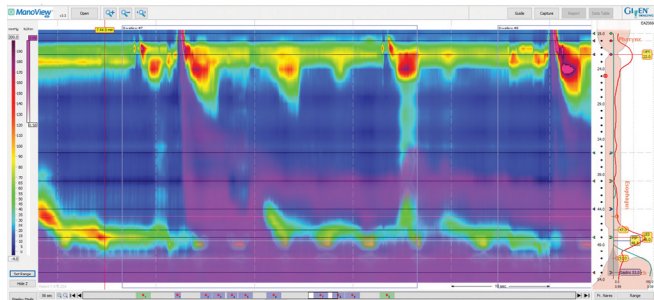
ManoView™ software provides an intuitive suite of manometry study tools.

**Anatomical profile display** includes graphical pointers to identify landmarks, including LES, UES, and PIP

## ManoScan™ ESO Z module

ManoScan™ ESO Z module and catheter provide circumferential assessment of bolus movement as well as physiological mapping of esophageal motor function.

Maps from the pharynx to the stomach,  
**with a single placement of the catheter.**



### Standard catheter specifications

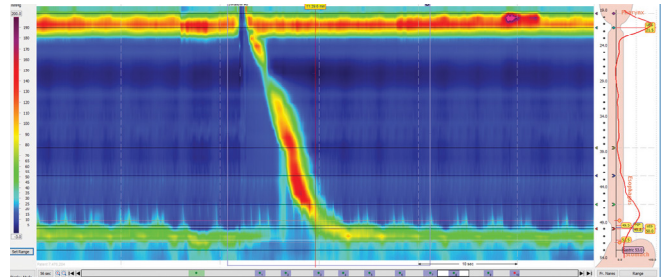
High resolution esophageal catheter with impedance:

- 36 esophageal channels with 12 measuring points per sensor provide 432 points of measurement
- 18 impedance channels display bolus transition from pharynx to esophagus
- 4.2 mm diameter
- True circumferential sensors
- Part number 3890

## ManoScan™ ESO module

ManoScan™ ESO module and catheter provide circumferential assessment of bolus movement as well as physiological mapping of esophageal motor function.

Maps from the pharynx to the stomach,  
**with a single placement of the catheter.**



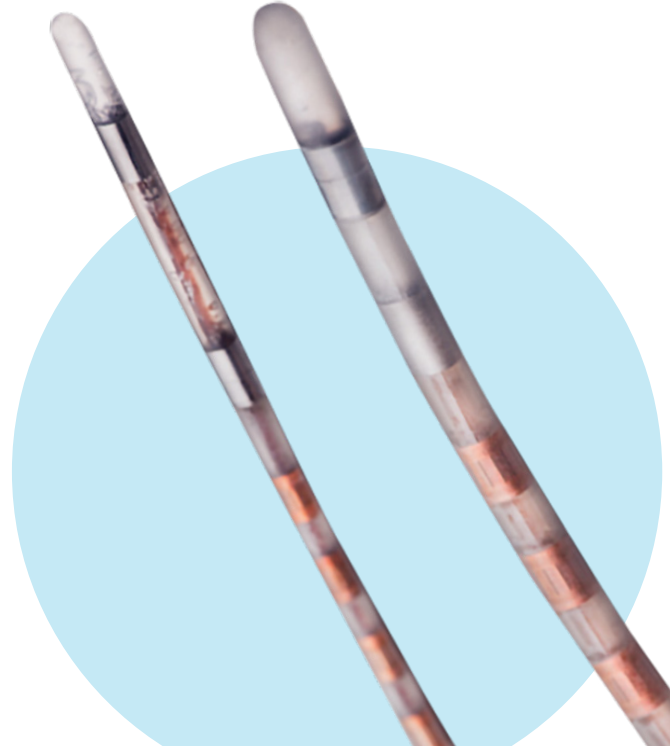
### Standard catheter specifications

High resolution esophageal catheter:

- 36 channels with 12 measuring points per sensor provide 432 points of measurement
- 4.2 mm diameter
- True circumferential sensors
- Part number 1286

High resolution esophageal small diameter catheter:

- 36 channels with 16 measuring points per sensor provide 576 points of measurement
- 2.75 mm diameter
- Part number 3887





Multiple solutions  
in a single platform





**Indications:** The ManoScan™ system provides mapping of pressures and, optionally, impedance within organs of the human gastrointestinal tract. These include the pharynx, upper esophageal sphincter (UES), esophagus, lower esophageal sphincter (LES), stomach, sphincter of Oddi, small bowel, colon, duodenum, and anorectal organs.

- It is used in a medical clinical setting to acquire pressures and then store the corresponding data for visualization and analysis.
- The real-time data as well as the analysis information can be viewed by medically-trained personnel for diagnostic and analytic purposes.
- The ManoScan™ HRM modules provide high-resolution and/or 3D (three dimensional) display of the pressure and impedance data.
- The ManoScan™ CLT module provides conventional line tracing mapping of the pressure data and can be used as a standalone system or as a module of the ManoScan™ high resolution manometry system.

**Contraindications:** The use of the ManoScan™ system for pharyngeal/esophageal motility study and proximal gut (gastric/duodenal) manometry is contraindicated for the following:

- Patients with inability to tolerate nasal intubation
- Patients with significant bleeding disorders for whom nasal intubation is contraindicated
- Patients with a known esophageal obstruction preventing passage of the instrument
- The use of the ManoScan™ system for anorectal manometry is contraindicated for patients with known anal stricture/obstruction preventing insertion of the instrument

**Adverse events:** Potential adverse events associated with the use of this system and catheter insertion into the nasal passage may include: discomfort, nasal pain, minor bleeding, runny nose, throat discomfort, irregular heartbeat with dizziness, and perforation. In rare instances, the catheter may be misdirected into the trachea causing coughing or choking, the catheter may curl during intubation and catheter position may move during the procedure. Potential adverse events associated with the use of this system and catheter insertion into the anorectum may include: discomfort, pain, minor bleeding, irregular heartbeat with dizziness, and perforation. In rare instances, the catheter may curl during insertion and catheter position may move during the procedure. Medical, endoscopic, or surgical intervention may be necessary to address any of these complications, should they occur. The system is not compatible for use in an MRI magnetic field.

Please refer to the product user manual or [medtronic.com/covidien/en-gb/products/motility-testing/manoscan-eso-high-resolution-manometry-system.html](https://www.medtronic.com/covidien/en-gb/products/motility-testing/manoscan-eso-high-resolution-manometry-system.html) for detailed information.

#### References:

1. Pandolfino JE, Fox MR, Bredenoord AJ, Kahrilas PJ. High-resolution manometry in clinical practice: utilizing pressure topography to classify oesophageal motility abnormalities. *Neurogastroenterol Motil.* 2009;21(8):796-806.
2. Bansal A, Kahrilas PJ. Has high resolution manometry changed the approach to esophageal motility disorders? *Curr Opin Gastroenterol.* 2010;26:344-351. Page 345, Col1 and Page 350, Col 2.
3. Kahrilas PJ. Esophageal motor disorders in terms of high-resolution esophageal pressure topography: what has changed? *Am J Gastroenterol.* 2010;105:981-987. Page 986, Col 2.
4. Mello M, Gyawali CP. Esophageal reflux disease. *Gastroenterology Clinics of North America.* Volume 43, Issue 1, Page 83.
5. Kwiatek MA, Pandolfino JE, Kahrilas PJ. 3D-high resolution manometry of the esophagogastric junction. *Neurogastro Motil.* 2011; 23(11):e461-469.

Source: ManoView™ Eso Analysis Program User Manual. DOC-3029-01

Medtronic is proud to partner with physicians, hospitals and institutions in the GI community who share our focus on advancing GI care and improving patients' lives. Together, we can work toward early detection and treatment of chronic GI diseases.

For more information, please visit:

[medtronic.com/covidien/en-gb/products/motility-testing/manoscan-eso-high-resolution-manometry-system.html](https://www.medtronic.com/covidien/en-gb/products/motility-testing/manoscan-eso-high-resolution-manometry-system.html)

This material is only intended for distribution in Europe. Indications, claims, and intended use may be different in other regions.

Important: Please refer to the package insert for complete instructions, contraindications, warnings and precautions.

© 2023 Medtronic. Medtronic, Medtronic logo, and Engineering the extraordinary are trademarks of Medtronic.

™\* Third-party brands are trademarks of their respective owners. All other brands are trademarks of a Medtronic company.

EMEA-DG-2300050-manoscan-hrm-brochure-en-we-8899383

[medtronic.com/covidien/uk](https://www.medtronic.com/covidien/uk)

**Medtronic**