

IQ-NEEDLE™ FOR LUMBAR PUNCTURE

You need tools you can trust

Lumbar puncture is a procedure many pediatricians approach with caution. Tissues of a child or a newborn are softer than of an adult, so intuition needs support. An unsuccessful puncture can occasionally lead to serious complications. But doubting decisions is a risk as well.

INJEQ IQ-Needle™

We have developed the most precise method for lumbar punctures with a revolutionary tissue identification technology.

INJEQ IQ-Needle™ provides simple, precise and indisputable digital data of real time tissue composition. You know exactly, where the tip is and when it has reached the spinal canal. It even records the data of the puncture for later evaluation.

This cutting-edge technology gives you the confidence to be successful. Now you can get it right the first time, everytime.



INJEQ IQ-Needle™ consists of INJEQ 301 Analyzer and INJEQ IQ-Tip spinal needle connected by re-usable IQC cable.

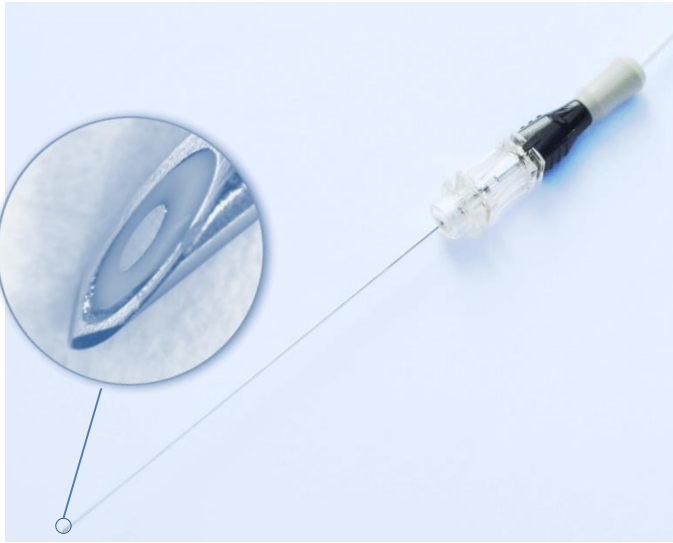
Intended use

INJEQ 301 is intended to identify INJEQ IQ-Needle contact with cerebrospinal fluid and to support needle guidance during lumbar puncture.

INJEQ IQ-Tip™ spinal needle is a disposable needle intended for the injection of fluid into or aspiration of fluid from the body. INJEQ IQ-Tip™ spinal needle is intended for use with Injeq bioimpedance analyzers.



INJEQ IQ-Tip Spinal Needle



Gauge	Color code	Length (mm)	Code
22	Black	40	IQS-22040-B01
		65	IQS-22065-B01
		90	IQS-22090-B01
27	Gray	90	IQS-27090-B01

Single use INJEQ IQ-Tip spinal needle is compliant with relevant medical standards including ISO 6009, ISO 10993-1, ISO 9626, ISO 15223, ISO 7864 and ISO 594-1.

Unique INJEQ IQ-Tip enables Bipolar impedance measurement from the lancet shape tip of the needle. Excellent needle hub for provides excellent grip and offers great tactile feedback.

INJEQ IQ-Tip spinal needle can be used as a typical hypodermic needle, but it provides the best results when used together with INJEQ 301 Analyzer.

INJEQ 301 Analyzer



INJEQ 301 Analyzer is designed for lumbar puncture to provide real-time tissue identification with INJEQ IQ-Tip Spinal Needle.

The performance of spinal fluid (CSF) identification has been validated by two clinical investigations. In the studies the sensitivity of detecting CSF has exceeded 90 %. The device also indicates non-validated tissues such as **muscle** or **fat** which may be combined to tactile feel and used as indicative reference of needle position.

For new clinical research product variant INJEQ 300R may be requested. INJEQ 300R is intended to characterize and record tissue data from a connected medical device that contains measurement electrodes.

Hardware

Type BF, Class IIa medical device
DSP based real-time architecture
Single-fault-safe design
Optimized for live tissue measurement
Measurement band 1-349kHz
Measurement precision 98%
Designed for indoor use (IP40)
5 x AA (LR6) Alkaline or NiMH (6-10 hours continuous use)

Software

Real-time DSP software

- Multi-frequency impedance spectrum
- Bayesian classification

Parametric configuration

- One language per configuration, independent from tissue models
- Proven performance in Clinical research

Compatible

Designed for hospital environment
Can be used to enhance ultrasound guidance (e.g. hip joint)

Disinfection by wiping with ethanol based products

IQC-07 Cable disinfection with ethanol based products. Cable can also be sterilized by steam autoclave

User interface

Simple graphical user interface on high contrast OLED display. Visual and auditory alerts for target tissue

Compliant with IEC 60601, IEC 62304, IEC 62366, MDD 93/42/EEC. ISO 13485, ISO 14971.