



Test device for function tests of infusion pumps in accordance to IEC 60601-2-24

- for peristaltic or syringe pumps
- touch screen or PC operation
- 1- or 2-channel version available
- integrated nurse call test
- robust light metal case
- user specific language setting
- option - suit case

Technical Data

Line voltage:	83 – 264 V ac, 50 / 60 Hz	Interface:	1 x USB for PC-connection
Nominal power:	max. 100 VA	Testing device connection:	4 x Luer-Lock 6 x sockets 4 mm
Protection class:	1	Digital display:	4,3" TFT-Display
Environmental temperature:	+5 - +40 °C	Operation:	Touch panel
Storage temperature:	+5 - +50 °C	Accessories:	1 x USB interface cable 1 x power cord
Measurements		Mechanical data:	light weight metal case IP20
Flow rate:	0,1 – 0,99 ml/h, ± 0,1 ml/h or ± 2,5 % of measurement value ¹⁾ 1 - 1000 ml/h, ± 0,1 ml/h or ± 1 % of measurement value ¹⁾	Dimensions:	290 x 340 x 87 mm (D x W x H)
Switch-off pressure:	0 – 2,5 bar, ± 0,01 bar or ± 1% of measurement value	Weight:	approx. 3,7 kg
Bolus volume:	0 – 5,0 ml	Selectable languages:	german, english, french, polish, spanish italian, portuguese, turkish
Test nurse's call switch:	contact closed / open / not connected		

¹⁾ at least 5 ml of measurement liquid must be pumped by syringe pumps and at least 25 ml by discontinuous pumps (peristalsis pumps and the like)

Description of functions:

The IN-600 serves for the functional testing of infusion pumps such as syringe pumps, roller (volumetric) pumps, peristalsis (finger) pumps and the like. The IN-600 is able to perform measurements at 2 pumps at the same time. The tests can be made via touch display in the stand-alone mode or via a PC software.

The measurement parameters:

Flow rate, Volume
Switch-off pressure, minimal pressure
Bolus Volume
Function of the nurse's call contacts
Pressure Measurement

Measurement:

The Measurement is based on a volumetric principle in which the measuring system is cyclically filled and emptied. The IN-600 displays a new arithmetic mean after each measurement cycle. The duration of measurement is in accordance with the stipulations contained in the test step selected by the operator.

In order to achieve the measurement precision of 1% of the measured value given above in

the technical data, at least 5 ml of measurement liquid must be pumped by syringe pumps and at least 25 ml by discontinuous pumps (peristalsis pumps and the like).

Switch-off pressure:

The IN-600 determines the switch-off pressure by closing the entry valve, which produces artificial stenosis. When the switch-off pressure is reached, the infusion pump triggers an alarm, and the system stops the flow of infusion liquid.

Continuous measurement of the input pressure at the IN-600 enables determining the maximum pressure, which is then recorded as the switch-off pressure of the pump. If the input pressure exceeds 2.5 bar, the system automatically opens the valves and stops the measurement.

Bolus volume:

The bolus volume is defined as the volume of liquid, which leaves the infusion tube after the switch-off pressure is reached and the stenosis valve is opened. The system measures this volume immediately after the stenosis valve is opened.

(The specified measuring accuracy refers to the measuring element. Technical modifications and errors reserved. 06/2021)