

Product PN GSS022A01S GSS023A01S GSS024A00S GSS025A00S

Mod. 984e-ext

Description HI-FLO Extension Set Adult 0.2/1.2/0.2+/5.0 µm

Rev. 07

HI-FLO Extension Set Adult with 0.2/1.2/0.2+/5.0 µm Filter



PRODUCT DESCRIPTION	Extension set for infusion for intravascular applications. The device is sterile and can be used in combination with an infusion set or an infusion device (pump or syringe). The connections are a female luer lock with vented cap inlet and a rotating male luer lock with cap outlet, compliant with ISO 80369-7. The set is provided with a vented Speedflow® Adult filter, with a hydrophilic PES membrane with 0.2/1.2/0.2+/5.0 µm pore size for particles retention and a hydrophobic PTFE membrane with 0,03 µm pore size. The approximate total length of the set is 241 mm. The set includes the following components: <ul style="list-style-type: none"> ▪ Female luer lock with vented cap inlet; ▪ Speedflow Adult 0.2/1.2/0.2+/5.0 µm IV Filter; ▪ Pinch Clamp; ▪ Rotating male luer lock with cap outlet.
CONFIGURATIONS	GSS022A01S 0.2 µm filter GSS023A01S 1.2 µm filter GSS024A00S 0.2+ µm filter GSS025A00S 5.0 µm filter
MANUFACTURER NAME	GVS SpA Via Roma, 50 40069 Zola Predosa (BO) – ITALY Phone: +39.051.6176311 – Fax: +39.051.6176200 e-mail: gvs@gvs.com – website: www.gvs.com
INTENDED USE / APPLICATION	Infusion of Drugs (including chemotherapy), Anesthetics, Nutritional Solutions and Saline Solutions for intravascular applications. The set can be connected via Luer Locks to all commercially available infusion administration sets compliant with ISO 80369-7. The set can be used either for gravity or in combination with an infusion set or an infusion device (pump or syringe). The set is intended to retain different particles depending on its filter pore size: <ul style="list-style-type: none"> ▪ 0.2 µm filter is intended specifically to eliminate air bubbles and to retain particles and bacteria, ▪ 1.2 µm filter is intended specifically to eliminate air bubbles and to retain fungi and microorganisms, ▪ 0.2+ µm filter is intended specifically to eliminate air bubbles and to retain particles, bacteria and endotoxins, ▪ 5.0 µm filter is intended specifically to eliminate air bubbles and to retain particles. The set is a single-use device that can be used applications that last: <ul style="list-style-type: none"> ▪ Devices with 0.2 µm filter: up to 96 hours; ▪ Devices with 1.2 µm filter: up to 24 hours; ▪ Devices with 0.2+ µm filter: up to 120 hours. The set has to be disposed after each therapy. Sets with 0.2/0.2+ µm filter cannot be used for infusion of hyper alimentation liquids, lipids, blood and/or blood derivatives. Sets with 1.2 µm filter cannot be used for infusion of blood and/or blood derivatives. Sets with 5.0 µm filter cannot be used for infusion therapy without further bacterial retention filter. The device should only be supervised and used by qualified healthcare personnel.



PRODUCT SPECIFICATION

CE 0051

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CLASS OF THE PRODUCT	Class IIa – sterile – single use Rule 2 and 3 Annex VIII 2017/472/UE
REGISTRATION NUMBERS	Italian national database: GSS022A01S 2439403 GSS023A01S 2439404 GSS024A00S 2439405 GSS025A00S 2439406
EMDN	A03020101 LOW PRESSURE EXTENSION LINES
MATERIALS	Filter media: PES Hydrophilic membrane / PTFE Hydrophobic membrane / 0.2+ filters include also Polyethylenimine Filter housing: MBS Tubes: PU Luer Lock: ABS / MABS Caps: HDPE Clamp: PP Regulatory Compliance: <ul style="list-style-type: none">▪ Biocompatibility according to ISO 10993-1▪ RoHS directive 2011/65/UE▪ DEHP plasticizer Free▪ Latex free▪ Reach 1907/2006/CE (hazardous substances regulation)▪ Reg. 1272/2008/CE (classification, labelling and packaging of substances and mixtures)
PRODUCT CHARACTERISTICS	Physical/Mechanical: Approximate total length: 241 mm Total internal volume of the set: 5 ml Weight: 12.7 g Input/output connectors: Female luer lock with cap inlet compliant with ISO 80369-7 Male luer lock with cap outlet compliant with ISO 80369-7 Operating temperature Range: From 5 °C to 40 °C Storage temperature Range: From 0 °C to 40 °C Maximum applicable pressure: 3,2 bar Biological: Biocompatibility: Compliant with ISO 10993-1 Features: Type of administration: gravity / pressure Duration of the application: 0.2 µm up to 96 hours 1.2 µm up to 24 hours 0.2+ µm up to 120 hours Filter: Speedflow Adult 0.2/1.2/0.2+/5.0 µm vented Filter pore size: 0.2/1.2/0.2+/5.0 µm Filter internal volume: < 2.4 ml Filter media: hydrophilic PES membrane and hydrophobic PTFE membrane, 0.2+ filters include also Polyethylenimine Flow Regulator: No Drip Chamber: No Roller: No Y-injection site: No Clamp: Close clamp Tubing: PU tube – inner Ø 1.5 mm / outer Ø 3.0 mm
PRODUCT SHELF LIFE	5 years
STERILIZATION	Sterile: Yes – EtO Suitable for Sterilization/Re-sterilization: No



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APPLICABLE STANDARDS AND REGULATIONS	Product Certification: CE mark
	Applicable Standards and Technical Regulations:
	EN 556-1 Sterilization of medical devices — Requirements for medical devices to be designated "STERILE" — Part 1: Requirements for terminally sterilized medical devices
	EN ISO 8536-4 Infusion equipment for medical use — Part 4: Infusion sets for single use, gravity feed
	EN ISO 8536-9 Infusion equipment for medical use — Part 9: Fluid lines for single use with pressure infusion equipment
	EN ISO 8536-11 Infusion equipment for medical use — Part 11: Infusion filters for single use with pressure infusion equipment
	EN ISO 10993-1 Biological evaluation of medical devices — Part 1: Evaluation and testing within a risk management process
	EN ISO 10993-4 Biological evaluation of medical devices — Part 4: Selection of tests for interactions with blood
	EN ISO 10993-5 Biological evaluation of medical devices — Part 5: Tests for in vitro cytotoxicity
	EN ISO 10993-7 Biological evaluation of medical devices — Part 7: Ethylene oxide sterilization residuals
	EN ISO 10993-10 Biological evaluation of medical devices — Part 10: Tests for irritation and skin sensitization
	EN ISO 10993-11 Biological evaluation of medical devices — Part 11: Tests for systemic toxicity
	EN ISO 10993-18 Biological evaluation of medical devices — Part 18: Chemical characterization of materials
	EN ISO 10993-23 Biological evaluation of medical devices — Part 23: Tests for irritation
	EN ISO 11135 Sterilization of health-care products — Ethylene oxide — Requirements for the development, validation and routine control of a sterilization process for medical devices
	EN ISO 11607-1 Packaging for terminally sterilized medical devices — Part 1: Requirements for materials, sterile barrier systems and packaging systems
	EN ISO 11607-2 Packaging for terminally sterilized medical devices — Part 2: Validation requirements for forming, sealing and assembly processes
	EN ISO 13485 Medical devices — Quality management systems — Requirements for regulatory purposes
	EN ISO 14971 Medical devices — Application of risk management to medical devices
	EN ISO 15223-1 Medical devices — Symbols to be used with medical device labels, labelling and information to be supplied - Part 1: General requirements
	EN ISO 20417 Medical devices — Information to be supplied by the manufacturer
	IEC 62366-1 Medical devices — Part 1: Application of usability engineering to medical devices
	EN ISO 80369-1 Small-bore connectors for liquids and gases in healthcare applications — Part 1: General requirements
	EN ISO 80369-7 Small-bore connectors for liquids and gases in healthcare applications — Part 7: Connectors for intravascular or hypodermic applications
	EN ISO 80369-20 Small-bore connectors for liquids and gases in healthcare applications — Part 20: Common test methods
INSTRUCTIONS FOR USE	Available languages: English / Italian / German / French / Spanish / Hungarian / Romanian
PACKAGING	Primary Packaging: Devices are individually packed and label in medical paper bags. Bag Size: 130 X 200 mm
	Secondary Packaging: Bags are placed inside a microperforated sack.
	Tertiary Packaging: Carton Box. Box Size: 60 x 40 x 20 cm Box Weight: 4.5 kg Devices per box: 300
CERTIFICATIONS	ISO 9001:2015 ISO 13485:2016 CE Certificate (2017/745/UE)

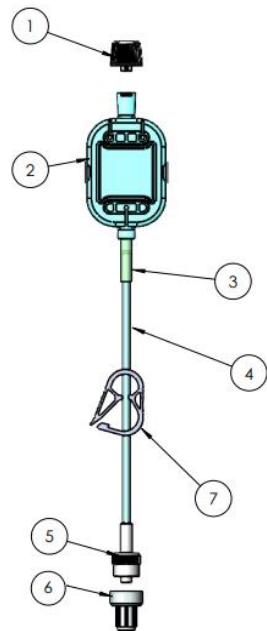
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DRAWING



ID	Description
1	Cap for Female Luer Lock
2	'22' model: Speedflow Adult 0.2 µm IV filter with FLL '23' model: Speedflow Adult 1.2 µm IV filter with FLL '24' model: Speedflow Adult 0.2+ µm IV filter with FLL '25' model: Speedflow Adult 5.0 µm IV filter with FLL
3	Tube 2 cm – inner Ø 2.9 mm / outer Ø 4.1 mm
4	Tube 11 cm – inner Ø 1.5 mm / outer Ø 3.0 mm
5	Male luer lock
6	Vented cap for rotating male luer lock
7	Pinch Clamp

REVISIONS AND APPROVALS:

DATE	REV.	REASON FOR CHANGE	ISSUED BY: (name/function/signature)	VERIFIED BY: (name/function/signature)	APPROVED BY: (name/function/signature)
14/02/2025	03	Added Hungarian and Romanian translations on labels and IFU	Barbara Palmieri RA Specialist 	Barbara Finessi QA Manage 	Luca Zanini VP Healthcare and Lifescience