

## HEINE Laryngoscopes

2.4.1.P. ir 1.1.3.P. Miller tipo  
mentelės2.4.3.P. ir 1.1.3.P. Pagamintos iš  
nerūdijančio plieno medžiagos

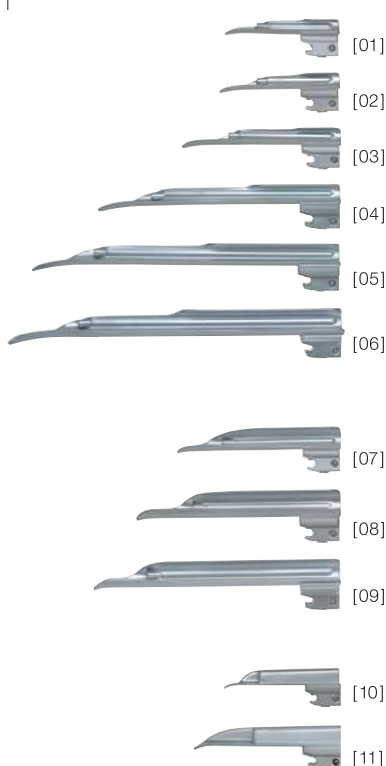
	Classic+ Macintosh	Classic+ Miller	Classic+ WIS	Classic+ Paed	FlexTip+	XP Macintosh	XP Miller
Blade size	0, 1, 2, 3, 3m, 4, 5	00, 0, 1, 2, 3, 4	1, 2, 3	0, 1	3, 4	1, 2, 3, 4	0, 1, 2, 3, 4
Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Polycarbonate	Polycarbonate
Diameter of HiLite Fiber Bundle in mm	4,3	3,7	3,7	3,6	4,3	–	–
Reprocessing	Reusable, Sterilisation without disassembly	Reusable, Sterilisation without disassembly	Reusable, Sterilisation without disassembly	Reusable, Sterilisation without disassembly	Reusable, Sterilisation without disassembly	⊗	⊗
Recommendations	–	2.1.1.P. ir 1.1.1.P. Skirtas daugartiniam naudojimui			–	Suitable for low ambient temperatures	Suitable for low ambient temperatures
Guarantee	5 years Guarantee and 4000 autoclave cycles	5 years Guarantee and 4000 autoclave cycles	5 years Guarantee and 4000 autoclave cycles	5 years Guarantee and 4000 autoclave cycles	5 years Guarantee and 4000 autoclave cycles	⊗	⊗
Catalogue page	079	080	080	080	081	082	082

⊗: Single use only.

2.4.2.P. ir 1.1.3.P. Su integruotu  
šviesolaidžiu

## HEINE Classic+ Miller, WIS and Paed Fiber Optic (F.O.) Blades

### Innovative Fiber Optic Technology for advanced performance



∴ **The Miller Classic+ blades with improved geometry simplify intubation.**

The shortened shoulder of the blade dramatically improves the anesthetist's view of the epiglottis and vocal cords. The distal lip of the blade features a special atraumatic shape.

∴ **HEINE HiLite fiber bundle** with up to 6,500 individual micro-fibers for improved light transmission and longer life.

∴ **Both ends of the large fiber bundle** are protected – for life.

∴ **HEINE Classic+ blades have no screwed joints**, no external fiber bundles and no openings that could contaminate.

∴ **The clean shape without any edges or corners** is easy to clean, disinfect and sterilise.

∴ These blades need **no maintenance** – ever.

∴ **Compatible** with all handles to the ISO 7376 (green standard).

∴ **High-quality design from chrome-plated, stainless, high-grade steel.**

∴ **5 years guarantee.** After 4000 autoclave cycles of 134 °C / 4 min, illuminance of at least 1,000 lux.

∴ **HEINE Paed laryngoscopes** have been developed specifically for the intubation of neonates and infants.

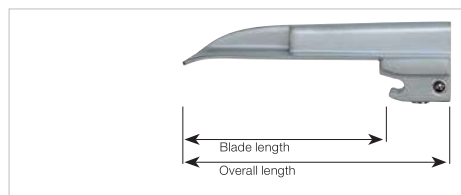
1.1.2.P. Mentelės autoklavuojamos  
2.1.2.P. Visos laringoskopo dalys  
autoklavuojamos



Miller 2 side-view



WIS 2 side-view



Paed 1 side-view

2.2.1.P. ir 1.2.1.P. Tiesi (Miller tipo) 00 dydžio mentelė (vidinis ilgis 51 mm, išorinis ilgis 76 mm)

2.2.3.P. ir 1.2.2.P. Tiesi (Miller tipo) 0 dydžio mentelė (vidinis ilgis 55 mm, išorinis ilgis 80 mm)

2.2.4.P. ir 1.2.3.P. Tiesi (Miller tipo) 1 dydžio mentelė (vidinis ilgis 78 mm, išorinis ilgis 100 mm)

Size	Overall length	Blade length	Distal width	
Miller 00 [01]	76 mm	51 mm	10 mm	F-000.22.119
Miller 0 [02]	80 mm	55 mm	11 mm	F-000.22.120
Miller 1 [03]	100 mm	78 mm	12 mm	F-000.22.121
Miller 2 [04]	152 mm	130 mm	13 mm	F-000.22.122
Miller 3 [05]	192 mm	170 mm	13 mm	F-000.22.123
Miller 4 [06]	207 mm	185 mm	16 mm	F-000.22.124
WIS 1 [07]	110 mm	85 mm	13 mm	F-000.22.131
WIS 2 [08]	130 mm	105 mm	16 mm	F-000.22.132
WIS 3 [09]	160 mm	133 mm	16 mm	F-000.22.133
Paed 0 [10]	82 mm	65 mm	12 mm	F-000.22.110
Paed 1 [11]	95 mm	78 mm	13 mm	F-000.22.111

2.3.P.Rankena grublėtu paviršiumi,  
saugančiu nuo slydimo



## 2.5.1.P. LED šalta šviesa

## HEINE F.O.4 NT Laryngoscope Handles

Li-ion in all handle sizes – XHL or LED<sup>HQ</sup> illumination


- Compatible with all laryngoscope blades to the ISO 7376 (green standard).
- HEINE Standard F.O. Laryngoscope Handles can be converted from battery to rechargeable handles by simply exchanging the bottom insert.
- Fade-Out Feature:** brightness reduces slowly even with low residual capacity, for even more efficient use of dry or rechargeable batteries.
- There's LED. And there's LED<sup>HQ</sup>.** HEINE has set a new standard which maintains that only the best is good enough, from the selection of materials to processing, from light intensity and thermal management to a colour rendering index as high as possible. That's what we call LED in HEINE Quality – or LED<sup>HQ</sup>.



\* Charge Status Indicator in the bottom insert.  
Typ. XHL 2,5 hours operating time.  
Typ. LED 7 hours operating time.



Standard F.O.4 NT Laryngoscope Handle*	XHL 3.5V Li-ion	LED 3.5V Li-ion
<b>Standard F.O.4 NT Handle, complete [01]</b>	<b>F-007.22.894</b>	<b>F-008.22.894</b>
Laryngoscope insert without bottom insert [02]+[03]	F-002.22.859	F-008.22.890
Bottom insert F.O.4 NT [04]*	F-002.22.884	F-002.22.884
Rechargeable battery [06]	X-007.99.383	X-007.99.383
Handle shell [07]	F-000.22.824	F-000.22.824
Spare bulb	X-002.88.044	-
NT4 table charger, only (without handle)	X-002.99.494	X-002.99.494

Standard F.O. Laryngoscope Battery Handle	XHL 2.5V	LED 2.5V
<b>Standard F.O. Handle,</b> suitable for 2x C-batteries (LR14), compl.** [01]	<b>F-001.22.860</b>	<b>F-008.22.860</b>
Bottom insert [05]	F-001.22.861	F-001.22.861

2.2.1.P. Rankena

2.2.5.P. Nejkraunamas akumulatorius

F.O.4 SLIM NT Laryngoscope Handle	XHL 3.5V Li-ion	LED 2.5V Li-ion
<b>F.O.4 SLIM NT Handle, complete [01]</b>	<b>F-007.22.804</b>	<b>F-008.22.804</b>
Laryngoscope insert without bottom insert [02]+[03]	F-002.22.801	F-008.22.801
Bottom insert F.O.4 SLIM NT [04]	F-000.22.854	F-000.22.854
Rechargeable battery [06]+[07]	X-007.99.380	X-007.99.104
Handle shell [08]	F-000.22.804	F-000.22.804
Spare bulb	X-002.88.044	-
NT4 table charger only (without handle)	X-002.99.494	X-002.99.494
Set of two adaptors	X-000.99.086	X-000.99.086

F.O. SLIM Laryngoscope Battery Handle	XHL 2.5V	LED 2.5V
<b>F.O. SLIM Handle</b> suitable for 2x AA-batteries (LR6), complete** [01]	<b>F-001.22.800</b>	<b>F-008.22.800</b>
Bottom insert [05]	F-000.22.851	F-000.22.851

F.O.4 SHORT NT Laryngoscope Handle	XHL 3.5V Li-ion	LED 2.5V Li-ion
<b>F.O.4 SHORT NT Handle, complete [01]</b>	<b>F-007.22.424</b>	<b>F-008.22.424</b>
Charging module [02]+[03]	X-007.99.394	X-007.99.304
Spare bulb	X-002.88.044	-
NT4 table charger only (without handle)	X-002.99.494	X-002.99.494

F.O. SHORT Laryngoscope Battery Handle	XHL 2.5V	LED 2.5V
<b>F.O. SHORT Handle</b> suitable for 2x AA-batteries (LR6), complete** [04]	<b>F-001.22.812</b>	<b>F-008.22.812</b>

\*\* Delivery without batteries.

Please note: All Li-ion versions can only be charged with the NT4 table charger.

# HEINE® F.O. 4 LED NT Laryngoscope Handles

DATA			
Description	Standard F.O. 4 LED NT	F.O. 4 SLIM LED NT (2.5V Li-ion)	F.O. 4 SHORT LED NT (2.5V Li-ion)
Catalogue Number	F-008.22.894	F-008.22.804	F-008.22.424
Version / Date	01.01.2018	01.01.2018	01.01.2018
MECHANICAL			
Weight (without blade and batteries)	320g	220g	235g
Dimensions product (length x width)	163 x 32mm	151 x 30,5mm	121 x 31 mm
Handle diameter	30.8mm	20.5mm	29.3mm
Dimensions packaging (single package)	186 x 65 x 46mm		
Connections	Connection port for laryngoscope blade (according to „Green Standard“ ISO 7376)		
Imprints	Handle: HEINE MADE IN GERMANY, year of manufacture, symbols, CE, product name, serial number, www.heine.com, data matrix code Bottom insert: HEINE, REF-Nr.		
Protection class	IP20	IP20	IP20
ELECTRICAL			
Power supply	NT4 Table Charger internal power supply via Li-ion L rechargeable battery (X-007.99.383)	NT4 Table Charger internal power supply via M2Z 4 NT Li-ion rechargeable battery (X-007.99.104)	NT4 Table Charger internal power supply via S2Z 4 NT Li-ion rechargeable battery (X-007.99.304)
Input	max. 6V DC	max. 6V DC	max. 6V DC
Power consumption	max. 600mA	max. 400mA	max. 400mA
Operating time*	typ. 7h	typ. 3h	typ. 3h
Charging time	typ. 2.75h / max. 6h	typ. 2.75h / max. 6h	typ. 2.75h / max. 6h
Class	internally powered	internally powered	internally powered
OPTICAL			
Type	LED Illumination (HQ)	LED Illumination (HQ)	LED Illumination (HQ)
Luminous flux* (at exit of lamp)	typ. 25lm	typ. 25lm	typ. 25lm
Color temperature	5000K +/- 500K	5000K +/- 500K	5000K +/- 500K
Color rendering index	typ. 87	typ. 87	typ. 87
Lifetime	typ. 100.000h	typ. 100.000h	typ. 100.000h
Classification according to IEC 62471	Group 2	Group 2	Group 2
<div>2.5.3.P. Šviesos šaltinio eksploatacijos resursas 100 000 valandų</div>			
GENERAL			
Material	M		
REACH/RoHS	Conform		
Phthalate	Product is Phthalate free		
Latex	Product is Latex free		
Biocompatibility	Conform		
Surface	Chrome		
Environmental conditions operation	Temperature: -20 °C to +50 °C, relative humidity: 15 % to 90 %, air pressure: 700hPa to 1060hPa		
Environmental conditions storage (without battery)	Temperature: -40 °C to +70 °C, relative humidity: up to 90 % (n.c.), air pressure: 500 hPa to 1060 hPa		
Environmental conditions transport (without battery)	Temperature: -40 °C to +70 °C, relative humidity: up to 90 % (n.c.), air pressure: 500 hPa to 1060 hPa		
Instructions for use	Deutsch, English, Français, Español, Italiano, Svenska, Nederlands, Português, Dansk, Suomi		
Operating elements	None		
Removable parts/ accessories	Laryngoscope blade, bottom insert		
Maintenance	Battery change		
Service	Device is service-free		
Patents	n/a		

\*) using new battery



## HEINE Standard F.O. LED Laryngoscope Handles

DATA			
Description	Standard F.O. LED Laryngoscope Handle 2,5V	Standard F.O. LED Laryngoscope Handle 3,5V NiMH	Standard F.O. LED Laryngoscope Handle 3,5V Li ION L
Catalogue Number	F-008.22.860	F-008.22.863	F-008.22.891
Date	07.2013	07.2013	07.2013
GENERAL			
Regulation	CE; FDA	CE; FDA	CE; FDA
Weight handle complete without battery/accu without blades	approx. 254g	approx. 252g	approx. 260g
Weight insert without bottom cap	approx. 74g		approx. 74g
Dimensions packaging	approx. 187mm x 66mm x 47mm		approx. 187mm x 66mm x 47mm
Dimensions handle with bottom caps (without packaging)	approx. 162mmx31mm		approx. 162mmx31mm
Material	used material: <b>stainless steel</b> , electrical contact: brass, silver, nickel	used material: stainless steel, electrical contact: brass, silver, nickel	used material: stainless steel, electrical contact: brass, silver, nickel
REACH/RoHS	REACH & RoHS compliant	REACH & RoHS compliant	REACH & RoHS compliant
Phthalate	Contains no Phthalates	Contains no Phthalates	Contains no Phthalates
Biocompatibility	The medical device does not have patient contact per intended use. Therefore the ISO 10993 is not applicable	The medical device does not have patient contact per intended use. Therefore the ISO 10993 is not applicable	The medical device does not have patient contact per intended use. Therefore the ISO 10993 is not applicable
Latex	Product is Latex free	Product is Latex free	Product is Latex free
Surface	chrome-plated	chrome-plated	chrome-plated
Environmental conditions operation	Temp.: +5°C to +40°C, relative humidity: 10%-75%, air pressure: 700hPa to 1060hPa	Temp.: +5°C to +40°C, relative humidity: 10%-75%, air pressure: 700hPa to 1060hPa	Temp.: +5°C to +40°C, relative humidity: 10%-75%, air pressure: 700hPa to 1060hPa
Environmental conditions transport and storage	Temp.: -40°C to +70°C, relative humidity: 10%-95%, air pressure: 500hPa to 1060hPa	Temp.: -40°C to +70°C, relative humidity: 10%-95%, air pressure: 500hPa to 1060hPa	Temp.: -40°C to +70°C, relative humidity: 10%-95%, air pressure: 500hPa to 1060hPa
Environmental conditions for batteries and rechargeable batteries in storage and transport	Temp.: -20°C to +50°C Humidity: up to 85% r.h.	Temp.: -20°C to +50°C Humidity: up to 85% r.h.	Temp.: -20°C to +50°C Humidity: up to 85% r.h.
Durability	5 years warranty	5 years warranty	5 years warranty
Operating elements	n/a	n/a	n/a
Power Supply	2 Drycells type LR14	NiMH battery pack X-002.99.382	Li-ION L battery pack X-007.99.383
Accessories	Bottomcap F-001.22.861	Bottomcap F-002.22.867	Bottomcap F-002.22.887
MECHANICAL			
Connections	for use with "Green Standard" Laryngoscope blades according to EN ISO7376	for use with "Green Standard" Laryngoscope blades according to EN ISO7376	for use with "Green Standard" Laryngoscope blades according to EN ISO7376
Imprints	Handle head: Site 1: "HEINE Germany" and "CE" Site 2: Ref Nr. green ring below handle head Battery insert: Heine Germany REF Nr SN Nr	Handle head: Site 1: "HEINE Germany" and "CE" Site 2: Ref Nr. green ring below handle head Battery insert: Heine Germany REF Nr SN Nr	Handle head: Site 1: "HEINE Germany" and "CE" Site 2: Ref Nr. green ring below handle head Battery insert: Heine Germany REF Nr SN Nr
CLEANING, STERILIZATION			
Handle shell Cleaning Disinfection Sterilisation	The handle shell must either be manually (in an immersion bath) or mechanically cleaned and disinfected. Sterilization (steam pressure sterilization at at least 132 °C (max. 134°C) for 3 min.) must subsequently be performed. Recommended agents: Cleaning agent: Neodisher® MediClean Disinfecting agent: EU: rotasept®; USA: Cidex®OPA Solution Recommended program for mechanical cleaning and disinfection: Vario TD program with disinfection lasting at least 5 min. at 93 °C or an alternative, comparable program. Recommended sterilization programs: fractionated vacuum procedure (3 times) or gravitation procedure (3 times)  <b>For full cleaning, disinfection and sterilisation guidelines please refer to the Instructions for Use.</b>	The handle shell must either be manually (in an immersion bath) or mechanically cleaned and disinfected. Sterilization (steam pressure sterilization at at least 132 °C (max. 134°C) for 3 min.) must subsequently be performed. Recommended agents: Cleaning agent: Neodisher® MediClean Disinfecting agent: EU: rotasept®; USA: Cidex®OPA Solution Recommended program for mechanical cleaning and disinfection: Vario TD program with disinfection lasting at least 5 min. at 93 °C or an alternative, comparable program. Recommended sterilization programs: fractionated vacuum procedure (3 times) or gravitation procedure (3 times)  <b>For full cleaning, disinfection and sterilisation guidelines please refer to the Instructions for Use.</b>	The handle shell must either be manually (in an immersion bath) or mechanically cleaned and disinfected. Sterilization (steam pressure sterilization at at least 132 °C (max. 134°C) for 3 min.) must subsequently be performed. Recommended agents: Cleaning agent: Neodisher® MediClean Disinfecting agent: EU: rotasept®; USA: Cidex®OPA Solution Recommended program for mechanical cleaning and disinfection: Vario TD program with disinfection lasting at least 5 min. at 93 °C or an alternative, comparable program. Recommended sterilization programs: fractionated vacuum procedure (3 times) or gravitation procedure (3 times)  <b>For full cleaning, disinfection and sterilisation guidelines please refer to the Instructions for Use.</b>
Battery insert Cleaning Disinfection Sterilisation	The battery insert including the bottom cap must be manually cleaned and disinfected (wiping cleaning and wiping disinfection). The battery insert including the bottom cap is not suited to mechanical processing (cleaning, disinfection or sterilization). Recommended agents: Cleaning agent: Neodisher® MediClean Disinfecting agent: EU: Mikrobac® Tissues; USA: disposable cloths soaked in Cidex®OPA Solution  <b>For full cleaning, disinfection and sterilisation guidelines please refer to the Instructions for Use.</b>	The battery insert including the bottom cap must be manually cleaned and disinfected (wiping cleaning and wiping disinfection). The battery insert including the bottom cap is not suited to mechanical processing (cleaning, disinfection or sterilization). Recommended agents: Cleaning agent: Neodisher® MediClean Disinfecting agent: EU: Mikrobac® Tissues; USA: disposable cloths soaked in Cidex®OPA Solution  <b>For full cleaning, disinfection and sterilisation guidelines please refer to the Instructions for Use.</b>	The battery insert including the bottom cap must be manually cleaned and disinfected (wiping cleaning and wiping disinfection). The battery insert including the bottom cap is not suited to mechanical processing (cleaning, disinfection or sterilization). Recommended agents: Cleaning agent: Neodisher® MediClean Disinfecting agent: EU: Mikrobac® Tissues; USA: disposable cloths soaked in Cidex®OPA Solution  <b>For full cleaning, disinfection and sterilisation guidelines please refer to the Instructions for Use.</b>
LIGHT			
Typ	LED	LED	LED
Maintanance	Check the performance of the (rechargeable) batteries routinely and change them if necessary.HEINE F.O. LED Laryngoscope Handles do not require regular service. The LED cannot be replaced by the user.	Check the performance of the (rechargeable) batteries routinely and change them if necessary.HEINE F.O. LED Laryngoscope Handles do not require regular service. The LED cannot be replaced by the user.	Check the performance of the (rechargeable) batteries routinely and change them if necessary.HEINE F.O. LED Laryngoscope Handles do not require regular service. The LED cannot be replaced by the user.
Power / current consumption	> 1 Watt	> 1 Watt	> 1 Watt
Luminous intensity (measured at the distal tip of a HEINE Classic+ MAC3 blade):	≥ 7.000 lux	≥ 7.000 lux	≥ 7.000 lux
Colour temperature	5.000K +/-500	5.000K +/-500	5.000K +/-500
Colour rendering	Ra typ. ≥ 80, R9 = typ. >20	Ra typ. ≥ 80, R9 = typ. >20	Ra typ. ≥ 80, R9 = typ. >20
Medium life expectance	20.000h (LED)	20.000h (LED)	20.000h (LED)
Operating times	ca. 13h100% brightness, >30 min Fade-Out	ca. 2h 100% brightness, >30 min Fade-Out	ca. 4h 100% brightness, >30 min Fade-Out

2.3.P. Korpusas pagamintas ir nerūdijančio plieno

2.1.2.P. Visos laringoskopo dalys autoklavuojamos

2.5.2.P. Apšvietimo intensyvumas 7000 lx