

SensorHand Speed VariPlus Speed



Quality for life



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SensorHand Speed

Speed and Precision

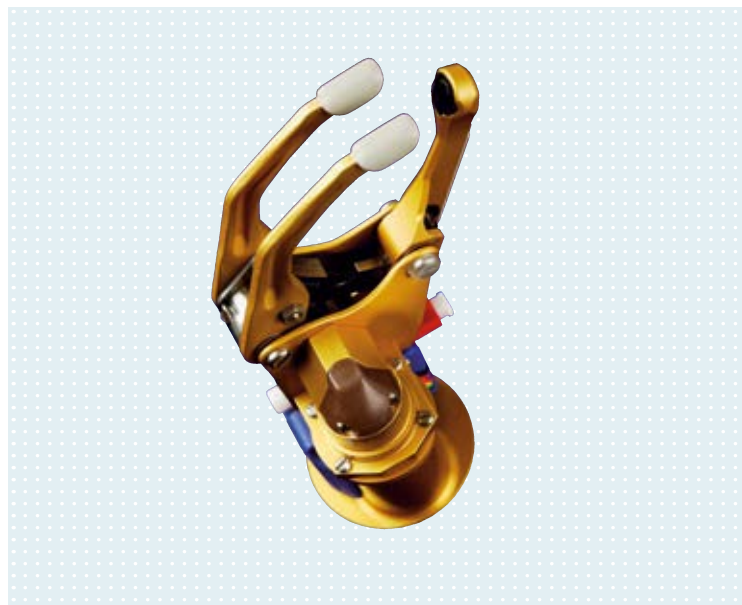
SensorHand Speed – Life gets faster. The new SensorHand Speed helps to keep everything under control. The SensorHand Speed can open and close at a speed that is more than twice as fast as other electric hands. And yet, it is particularly easy and precise to control, thanks to new intelligent software and modified signal processing! Furthermore, unique Auto-Grasp SUVA* Sensor technology prevents objects from inadvertently slipping out of the hand and being dropped. The SensorHand Speed sets new standards in terms of precision, speed, and safety.

With the **SensorHand Speed**, there is no need to keep constant watch on the object being held.

SUVA* Sensor Technology integrated into the thumb instantly senses when a gripped object is about to slip. Within a fraction of a second, the intelligent system automatically increases gripping force until the object is once again held securely.

Thanks to the SensorHand Speed with SUVA* Sensor Technology, users can have a more secure grasp and hold onto objects.

Costumers can select from different control options using one or two electrodes. The desired control option is determined by exchanging coloured coding plugs or with the help of the **757T13 MyoSelect**. There's peace of mind knowing the Ottobock SensorHand Speed makes it easier to grasp fragile objects or liquid-filled containers. It senses and responds to changing situations, so users don't have to.



Two independent measurement and control systems proportionally control the gripping speed and gripping force. A strain gauge between the thumb and index finger recognizes whether the gripping force or gripping speed needs to be proportionally controlled.

The **FlexiGrip** function allows the user to passively change the position of an object within the hand without using myoelectric control to open and close the hand. Thus the grip appears flexible, almost like with a natural hand. Active pronation and supination can be controlled by the **13E205 MyoRotronic** in combination with the **10S17 Electric Wrist Rotator**.

* Developed in cooperation with the Schweizerischen Unfall-Versicherungs-Anstalt, SUVA (Swiss Insurance Agency)

SensorHand Speed

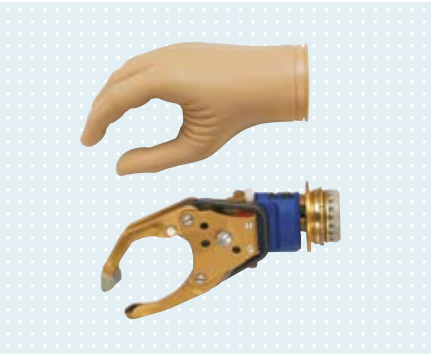
Technical Data

Operating voltage	6/7.2 V
Static current	2 mA
Operating temperature range	0 – 70°C
Opening width	100 mm
Proportional speed	15 – 300 mm/s
Proportional gripping force	0 – approx. 100 N
Weight (with System Inner Hand)	approx. 460 g
Power supply	EnergyPack 757B20 (7.2 V) EnergyPack 757B21 (7.2 V) MyoEnergy Integral 757B35=* (7.4 V)
Control options	<ul style="list-style-type: none"> • DMC Plus Sensor Technology • AutoControl LowInput • AutoControl • VarioControl • VarioDual • DMC Plus without Sensor Technology

Available sizes

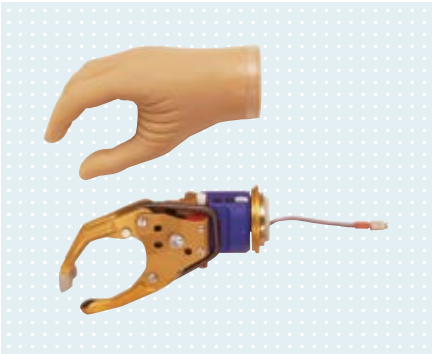
and connection possibilities

The SensorHand Speed is available in size 7 ¼, 7 ¾, and 8 ¼ with the corresponding inner hand. A prosthetic glove must be oerded separately.



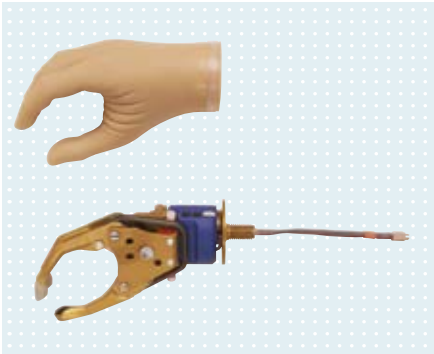
8E38=8 SensorHand Speed with Quick-Disconnect Wrist

For all residual limb lengths (except wrist disarticulation). Passive or electrical wrist rotation.



8E39=8 SensorHand Speed with Lamination Ring

For wrist disarticulation. Passive wrist rotation with friction.



8E41=8 SensorHand Speed with Threaded Stud

For all residual limb lengths (except wrist disarticulation). With central cable output. Compatible with MyoWrist 2Act.

MyoHand VariPlus Speed

Individual and Quick

The **MyoHand VariPlus Speed** combines the mechanical features of the SensorHand Speed and the control options of the System Electric Greifer DMC VariPlus. Its high gripping force (up to 100 N) and speed (up to 300 mm/s) make it possible to grip objects precisely and quickly.

A total of 6 different programs can be selected with the aid of the **757T13 MyoSelect** and adjusted to the indications of the user. They allow the optimal adaptation of the prosthesis to the amputee's individual abilities and requirements.

The renunciation of the thumb sensor lets the user grip actively and consciously. Objects must be intentionally fixed and positioned by muscle signals, since the electronics of the electrohand do not automatically readjust the gripping force.

A significant advantage of the hand is that the user can actively build up the gripping force to a maximum of 100 N. A variety of different control programs make it possible to find a solution that is suited for the user. In every control option, the speed and the build-up of gripping force can be adapted to the patient with **MyoSelect**.



The **MyoHand VarioPlus Speed** can be used for all amputations levels and is ideal for active users. Active pronation and supination can be controlled by the **13E205 MyoRotronic** in combination with the **10S17 Electric Wrist Rotator**.

MyoHand VariPlus Speed

Technical Data

Operating voltage	6/7.2 V
Static current	1 mA
Operating temperature range	0 – 70°C
Opening width	100 mm
Proportional speed	15 – 300 mm/s
Proportional gripping force	0 – approx. 100 N
Weight (with System Inner Hand)	approx. 460 g
Power supply	EnergyPack 757B20 (7.2 V) EnergyPack 757B21 (7.2 V) MyoEnergy Integral 757B35=* (7.4 V)
Control options	<ul style="list-style-type: none"> • DMC Plus • AutoControl LowInput • VarioControl • VarioDual • Digital Control • Double Channel Control

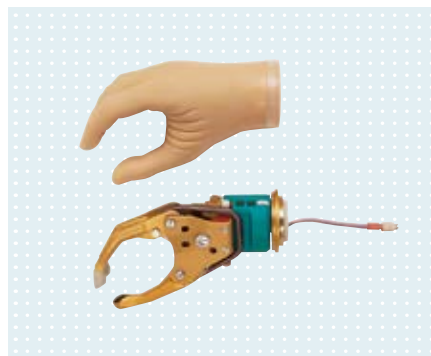
Available size and connection possibilities

The MyoHand VariPlus Speed is available in size 7 ¹/₄, 7 ³/₄ and 8 ¹/₄ with the corresponding inner hand. A prosthetic glove must be ordered separately.



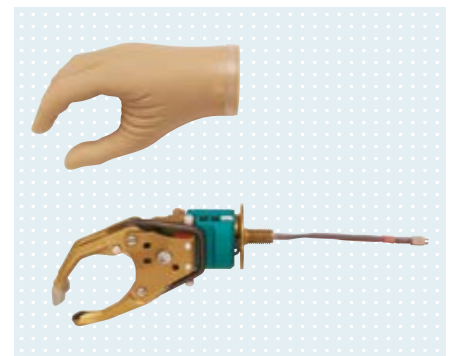
8E38=9 with Disconnect Wrist Unit

For all residual limb lengths (except wrist disarticulation). Passive or electrical wrist rotation.



8E39=9 with Lamination Ring

For wrist disarticulation. Passive wrist rotation with friction.



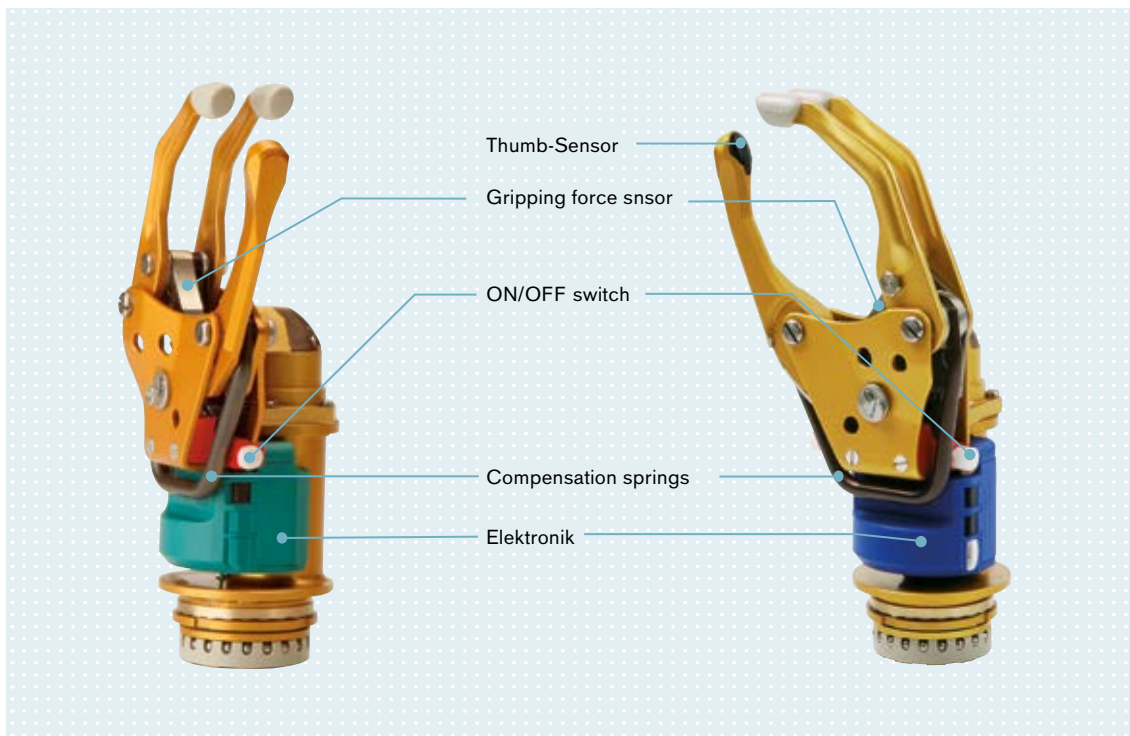
8E41=9 with Threaded Stud M12x1,5

For all residual limb lengths (except wrist disarticulation). With central cable output. Compatible with MyoWrist 2Act.

Comparison

SensorHand Speed vs. MyoHand VariPlus Speed

MyoHand VariPlus Speed	SensorHand Speed
<ul style="list-style-type: none"> • Gripping force (up to 100 N) • Speed (up to 300 mm/s) • No thumb sensor • 6 individual control programs from the Greifer DMC VariPlus • Quick digital control option 	<ul style="list-style-type: none"> • Gripping force (up to 100 N) • Speed (up to 300 mm/s) • Integrated thumb sensor • 6 individual control programs • Auto-grasp feature • Flexi-grip feature
Benefits	Benefits
<ul style="list-style-type: none"> • Active, conscious gripping, combined with 6 individual control programs • Adjustable build-up of gripping force 	<ul style="list-style-type: none"> • The SensorHand Speed combines the advantages of a slip sensor with a high gripping speed. • The best compromise between very quick gripping and sensitive, exact control.
For comparison	
<ul style="list-style-type: none"> • Digital Twin Hand constant 100 mm/s • DMC Plus Hand max. 130 mm/s • Digital Twin Hand has only one function plug to select between digital and dual-channel control • DMC Plus Hand has only one function plug to select between DMC and DMC Plus Control 	



MyoBock Program Overview



ADULT MYOELECTRIC COMPONENTS						PEDIATRIC	
Myoselect Program #	8E38=9, 8E39=9, 8E33=9 or 8E34=9	8E38=8 or 8E39=8	13E205	12K50	Coding Plug Color and Article #	9E370	9E369
	MyoHand VariPlus Speed Greifer DMC VariPlus	SensorHand™ SPEED	MyoRotronic as used with Rotator & Adult Terminal Device	ErgoArm Electronic		4-in-1 Controller for System 2000 Children's Hand Size 5 ½ ,6,6 ½	4-in-1 Controller for System 2000 Children's Hand Size 5
	CONTROL MODE	CONTROL MODE	SWITCHING MODE	SWITCHING MODE		CONTROL MODE	CONTROL MODE
Program 1	DMC Plus 2 Electrodes Open ON → High Close ON → High	DMC Plus Sensor 2 Electrodes Open ON → High Close ON → High	Four Channel Control 2 Electrodes Supination ON → High in < 80 ms Pronation ON → High in < 80 ms	Direct switch control (pulse)	WHITE 13E184=1	Digital (L) 2 Electrodes Open ON Close ON	Digital EVO (L) 1 Electrode or 1 Switch Open > ON Close < ON
Program 2	AutoControl – Low input 2 Electrodes or Switch combination Open ON → Low Close ON-Digital Time based grip force	AutoControl – Low input 2 Electrodes or Switch combination Open ON → Low Close ON-Digital	Co-Contraction 2 Electrodes Adjustable Automatic switch-back	Direct Co-contraction control	RED 13E184=2	Digital (R) 2 Electrodes Open ON Close ON	Digital EVO (R) 1 Electrode or 1 Switch Open > ON Close < ON
Program 3	VarioControl 1 Electrode or 1 Linear Transducer Open ON → High contract Close High → ON relax	AutoControl 1 Electrode or 1 Switch Open > ON Close < ON	Safety Co-Contraction 2 Electrodes Adjustable Automatic switch-back	Mode switching by external switch (hold)	GREEN 13E184=3	Dynamic Mode Control (L) 2 Electrodes Open ON → High Close ON → High	Dynamic Mode Control (L) 2 Electrodes Open ON → High Close ON → High
Program 4	VarioDual 2 Electrodes Open → High contract electrode 2 Close High→ON relax electrode 2 or Close ON→High contract electrode 1	VarioControl 1 Electrode or 1 Linear Transducer Open ON → High contract Close High → ON relax	External Switch 2 Electrodes and 1 Switch	Mode switching by external switch (pulse)	BLUE 13E184=4	Dynamic Mode Control (R) 2 Electrodes Open ON → High Close ON → High	Dynamic Mode Control (R) 2 Electrodes Open ON → High Close ON → High
Program 5	Digital Control 2 Electrodes or switch combination Open ON-constant maximum speed Close ON-constant maximum speed Time based grip force	VarioDual 2 Electrodes Open ON → High contract electrode 2 Close High→ON relax electrode 2 or Close ON→High contract electrode 1	One Electrode Control 1 Electrode or 1 Linear Transducer Impulse Switching Double Channel control of Pronation and Supination Adjustable Automatic switch-back	Mode switching by external switch (pulse) with auto return (10 sec.)	YELLOW 13E184=5	DMC - Low Input (L) 2 Electrodes Open ON → Low Close ON → Low	DMC - Low Input (L) 2 Electrodes Open ON → Low Close ON → Low
Program 6	Double Channel Control 1 Electrode or 1 Linear Transducer Open ON → High in < 80 ms Close ON → high in > 80 ms Time based grip force	DMC Plus Sensor 2 Electrodes Open ON → High Close ON → High Auto grasp shut-off	- -	Co-contraction mode switch	PURPLE 13E184=6	DMC - Low Input (R) 2 Electrodes Open ON → Low Close ON → Low	DMC - Low Input (R) 2 Electrodes Open ON → Low Close ON → Low
Program 7	- -	- -	- -	Co-contraction mode switch with auto return (10 sec.)	ORANGE 13E184=7	DMC EVO (L) 1 Electrode or 1 LT Open ON → Low Close <ON	DMC EVO (L) 1 Electrode or 1 LT Open ON → Low Close <ON
Program 8	- -	- -	- -	- -	BLACK 13E184=8	DMC EVO (R) 1 Electrode or 1 LT Open ON → Low Close <ON	DMC EVO (R) 1 Electrode or 1 LT Open ON → Low Close <ON