

User manual

Edition D-P002-51-70-M0-1100, August 2023

Micro Joystick

Micro Joystick Omni (P002-51) - Micro Joystick R-net
(P002-52) - Micro Joystick Omni (5gr adapted) (P002-55) -
Micro Joystick LiNX (P002-54)



mo-vis
moving forward together

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Other languages

CS: Tito příručku naleznete v češtině na našich webových stránkách.

DA: Du kan finde denne manual på dansk på vores websted.

DE: Auf unserer Website finden Sie diese Anleitung in Deutsch.

EN: You can find this manual in English on our website.

ES: Este manual está disponible en español en nuestro sitio web.

FR: Vous pouvez trouver ce manuel en français sur notre site Web.

IT: nostro sito web è disponibile il presente manuale in italiano.

NO: Du finner denne håndboken på norsk på nettstedet vårt.

NL: De Nederlandse handleiding kunt u op onze website vinden.

PT: Pode encontrar este manual em português na nossa página web.

SL: Slovenski priročnik je na voljo na naši spletni strani.

SV: Du hittar den här handboken på svenska på vår webbplats.

You can find the latest version of all our manuals on the website.

About this manual

User manual

Thank you for choosing a mo-vis product!



This manual contains **useful and important information** about your device.
Please read it carefully before use and store safely for future reference.

Our team (or your authorized dealer) will be happy to answer your questions.

mo-vis bv

Biebuyckstraat 15D . 9850 Deinze .
Belgium

<http://www.mo-vis.com> .
contact@mo-vis.com . +32 9 335 28



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CH **REP**

CH-REP: SKS Rehab AG, Im Wyden,
8762 Schwanden GL, Switzerland.

UK
CA

UK Responsible Person: QServe
Group UK, Ltd., 49 Greek Street,
London, W1D 4EG, UK.

User manual

Warning labels

Please read this manual, the safety instructions and warning texts carefully, in order to reduce the risks associated to the device. Our products are safe under normal and reasonably foreseeable operating conditions.



NOTE: This symbol indicates general notes and information.



CAUTION: This symbol indicates caution for a hazardous situation that, if not avoided, could result in minor or moderate injury.









WARNING: This symbol indicates a warning for a hazardous situation that, if not avoided, could result in death or serious injury.

Other labels:



Catalogue number: indicates the manufacturer's catalogue number so that the medical device can be

| | |
|--|---|
| | identified. |
|  | Batch code: indicates the manufacturer's batch code so that the batch or lot can be identified. |
|  | Medical device: indicates that the item is a medical device. |
|  | Date of manufacture: indicates the date when the medical device was manufactured. |
|  | Serial number: indicates the manufacturer's serial number so that a specific medical device can be identified. |
|  | Consult instructions for use or consult electronic instructions for use: indicates the need for the user to consult the instructions for use. |
|  | Keep dry: indicates a medical device that needs to be protected from moisture. |
| | Do not use if package is damaged and consult instructions for use: |



indicates that a medical device should not be used if the package has been damaged or opened and that the user should consult the instructions for use for additional information.



CE label: indicates that the manufacturer or importer affirms the good's conformity with European health, safety, and environmental protection standards.



WEEE: indicates that the product should not be discarded as unsorted waste but must be sent to separate collection facilities for recovery and recycling.



Manufacturer: indicates the medical device manufacturer.

Support, scrapping & recycling

Technical support



TROUBLE: In case of technical problems:

- Contact your dealer
- If your dealer is not available or unknown, please contact mo-vis: contact@mo-vis.com or +32 9 335 28 60.

Always state the product code and device serial number when contacting us. This ensures you are provided with the correct information.

Spare parts and accessories

Contact mo-vis or your dealer for more information about spare parts and accessories.

Scrapping & recycling

The expected lifetime of this device is 5 years.



CAUTION: For scrapping, adhere to your local waste legislation. Dispose of obsolete electronic parts responsibly in accordance with local recycling regulations.

Limited liability

*mo-vis accepts **no liability** for personal injury or damage to property that may arise from the failure of the user or other persons to follow the recommendations, warnings and instructions in this manual.*



CAUTION: This product should only be installed by a qualified service engineer.



NOTE: All mo-vis user manuals can be found at <http://www.mo-vis.com> where they can be consulted in PDF format.



NOTE: In case any serious incident occurs in relation to this device, this should be reported immediately to mo-vis and the competent authority of the Member State in which the user is established.

Intended use

The Micro Joystick:

- is a joystick module which can be connected directly to the wheelchair electronics to control the wheelchair functions.

- is a very small, proportional joystick, specifically designed for people with very poor or weak muscle strength and/or limited movements.
- can easily be controlled by e.g. finger, chin, tongue, lip ...
- is recommended for people with muscular or neuromuscular diseases.



NOTE: The joystick operates with high sensitivity. A good and controlled movement coordination and force control is required.

Features

The Micro Joystick:

- is very small and proportional.
- is supplied with two toppers: a small ball and a cup. A third topper is optionally available, see [Parts and accessories on page 15](#)



- is very sensitive due to its low operating force (ca. 8 gr - 0.28 oz) and movement (3.3 mm - 0.13 in).
- can be controlled by finger, chin, tongue, lip ...
- is designed in ergonomic shape for easy handling.
- has 2 switches that can be linked to the separate interface: (1) on/off power wheelchair - (2) mode of the power wheelchair.



- is fully adjustable to individual possibilities and needs with well-thought-out electronics (USB-C connection).
- is compatible with multiple types of wheelchair electronics.
- has a LED light on the interface which will start to flash green in case of an error or orange in case of active tilt (see *Installation manual*) .

Special adaptation

There is now also another version available of the Micro Joystick: the P002-55 Micro Joystick Omni (5gr adapted). The movement is still 3.3 mm - 0.13 in, but the operating force is now 5 gr - 0.18 oz.



NOTE: Before mo-vis can deliver this product to you, the user and/or the dealer will have to declare that they have read and agreed to specific risk mitigations. Please refer to the *Micro Joystick Installation manual* for more information.

Operation

The movements of the control are translated into according movements of the wheelchair, e.g. driving or menu navigation.

Common practice to navigate the wheelchair with the joystick is as follows:

- **Direction:** point the control into the direction you want the wheelchair to move. The wheelchair then moves in that direction.
- **Speed:** the further you move the control from the default (center) position, the faster the wheelchair moves.
- **Stop:** whenever you release the control, the control moves back to the default (center) position and the wheelchair stops.



CAUTION: Avoid hitting obstacles during driving.



WARNING: When the LED light flashes and/or after every incident with the wheelchair or the mo-vis device, contact your dealer immediately to perform a functional test.




LED status

The illumination of the LED on the joystick interface indicates the operational status of the joystick.

| JOYSTICK STATUS | COLOUR | LED TIMING | COUNT | STATE DESCRIPTION |
|-----------------|--------|------------|----------------|----------------------------------|
| Configuring | Orange | Fast | Not applicable | Wheelchair is configuring |
| Powercycle | Orange | Heartbeat | | Wheelchair waits for power cycle |
| Focus | Green | Always on | | System is in focus |
| Out of focus | Green | Heartbeat | | System is out of focus |
| Out of neutral | Green | Medium | | Joystick is out of neutral |
| Error | Red | Errors | See | Something went wrong |

Parts and accessories

A Micro Joystick package consists of the following parts:

| EXAMPLE | P002-51 - MICRO JOYSTICK OMNI / P002-55 MICRO JOYSTICK OMNI (5 GR ADAPTED) | P002-52 - MICRO JOYSTICK R-NET | P002-53 - MICRO JOYSTICK LINX |
|---|---|--------------------------------------|-------------------------------------|
|  | P002-50 - Micro Joystick sensor  NOTE: In the case of the P002-55, the P002-50 will be adapted for lower force | | |
|  | M006-08 - Micro Joystick ball | | |
| | M006-09 - Micro Joystick cup (10.1 mm) | | |

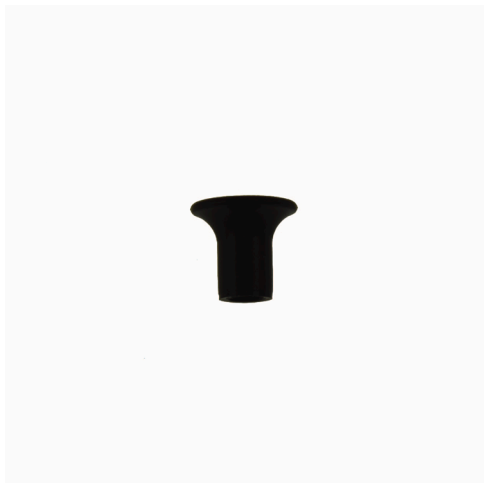
| EXAMPLE | P002-51 - MICRO JOYSTICK OMNI / P002-55 MICRO JOYSTICK OMNI (5 GR ADAPTED) | P002-52 - MICRO JOYSTICK R-NET | P002-53 - MICRO JOYSTICK LINX |
|---|---|--|--|
|  | M006-20 - Micro Joystick mounting set | | |
|  | | | |
| See <i>Installation Manual</i> | SUB D9 cable and Joystick Omni Interface | R-net cable and Joystick R-net Interface | LiNX cable and Joystick LiNX Interface |

D-P002-51-70-MX Micro Joystick User manual

D-P002-51-70-M9 Micro Joystick Installation manual

Optional

A third topper is optionally available: M006-27 Micro Joystick Cup (15.5 mm).



Unit detail

The connections of the interface unit have protective covers to avoid the intrusion of dust or moist during usage.

Spare parts

Spare parts and accessories must be ordered by the dealer at mo-vis bv.
Always mention the product code of the desired item.

Qualifications



CAUTION: Only a qualified service engineer may install the device.



CAUTION: An incorrect programming of the wheelchair or device electronics, may cause damage to the devices or injury to the user.

First time use



CAUTION: A qualified service engineer should assist during first time use of the device and make sure that all functions are clear to the user, including what to do in case of problems or doubt.

Cleaning



WARNING: As dust and dirt could lead to reduced functionality, all parts of the device should be cleaned on a regular basis (monthly) or whenever needed.

- Gently remove dust and dirt with a damp cloth.
- Use only non-aggressive disinfectant cleaning agents.



CAUTION: Do not immerse in water or use excessive amounts of liquid.



CAUTION: Do not apply additional lubricants to the moving parts.

The handles of the joystick can be removed to clean them.

- You may shortly immerse the handle in warm water with a gentle cleaning agent. Let the handle dry before putting it back on.
- If the handle is damaged, worn out or remains dirty, please contact your authorized dealer or mo-vis to replace it.

Warnings and limitations



NOTE: This product complies with the limit values for Electromagnetic Compatibility (EMC) with respect to power wheelchairs, as set out in

the harmonized standards for the EU in the Medical Device Regulation, No. 2017/745.



WARNING: Do not cover or block the device to avoid uncontrolled behavior of the device or the wheelchair.



CAUTION: If an output inhibit is programmed, then it should be checked monthly if this is still operational. Please see the *Installation Manual* for more information.

Connection options

The connection interface depends on the control version. Please see the *Installation Manual* for more information.



You can connect 1 or 2 switches to the unit:

- **Red** = power on/off
- **Yellow** = mode



WARNING: The on/off switch must be available to the user at all times. This allows to instantly stop the wheelchair in case of problems or an emergency.

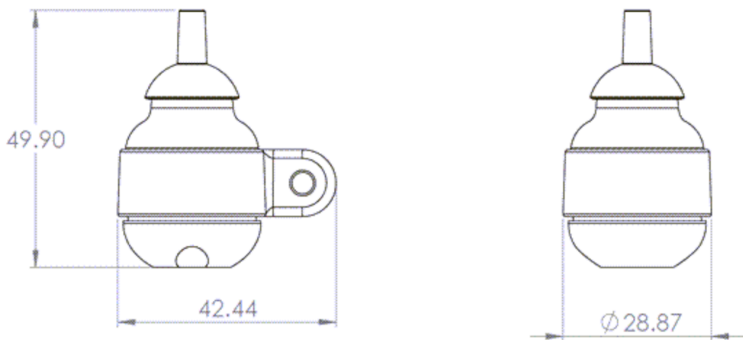


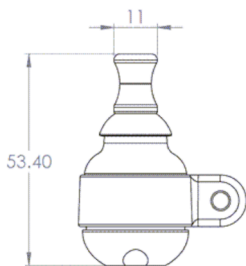
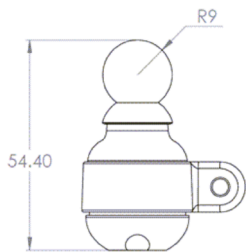
WARNING: Always power off the device when the user is no longer in the wheelchair to avoid unauthorized access or accidental movements.

Combinations

There are different versions of this device available for combination with different wheelchair electronics. Please refer to the *Installation Manual* of this device for more information.

Dimensions





| PART | | DIMENSIONS (METRIC) | DIMENSIONS (IMPERIAL) |
|---------------|--|-----------------------------------|-------------------------------------|
| Joystick | | 50 mm x 29 mm x 29 mm (HxWxD) | 1.97 in x 1.41 in x 1.41 in (HxWxD) |
| Ball | | 16 mm x 18 mm x 18 mm (HxWxD) | 0.63 in x 0.71 in x 0.71 in (HxWxD) |
| Cup (10.1 mm) | | 15 mm x 11 mm x 11 mm (HxWxD) | 0.59 in x 0.43 in x 0.43 in (HxWxD) |
| Cup (15.5 mm) | | 14 mm x 15.5 mm x 15.5 mm (HxWxD) | 0.55 in x 0.61 in x 0.61 in (HxWxD) |



mo-vis bv . Biebuyckstraat 15D . 9850 Deinze - Belgium

www.mo-vis.com . contact@mo-vis.com . +32 9 335 28 60

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your experience with us via email.**

