User manual MyWrist

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product nr:	
date of manufacture:	

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1. INTRODUCTION

Thank you for choosing the Hy5 MyWrist. This manual contains important information for the correct use and handling of your MyWrist and will help you to take full advantage of your product.

MyWrist is a universal quick disconnect unit from Hy5. It is intended for any prosthetic hand or prosthetic device that is connected to a standard female quick disconnect. Each unit is provided with a dual-function protection cap and adjustment tool that allows simple and continuous adjustment of the rotational force so that it can be changed to the exact preferences of the user in a matter of seconds.

Additionally, a universal backing plate also creates a highly adaptable platform for the mounting of custom-made tooling or accessories.

Please read this manual carefully before use. If you have any questions or experience any problems with the product, please contact Hy5.

2. PRODUCT VARIANTS & UNPACKING

The MyWrist product is sold in two variants – check to ensure that your delivery includes all of the correct components.

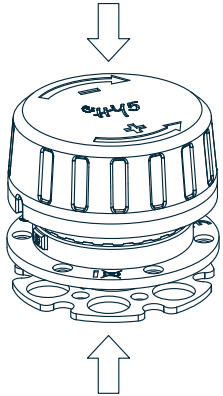
#1 For use with prosthetic hand, includes:

- Mechanical connector
- Coaxial bushing
- 6 x M2,5x8 TX8 fastener with 1.3mm hex key
- Protection cap/rotational force adjustment tool
- User manual

#2 As platform for the mounting of tooling and accessories, includes:

- Mechanical connector
- 6 x M2,5x4 TX8 fasteners with 1.3mm hex key
- Universal mounting plate
- Protection cap/rotational force adjustment tool
- User manual

Please note that the MyWrist unit includes several components that remain loose until the unit is installed. Please take care to support the assembly from both sides when removing from the packaging:



3. TECHNICAL INFORMATION

3.1 Principle specifications

Mechanical

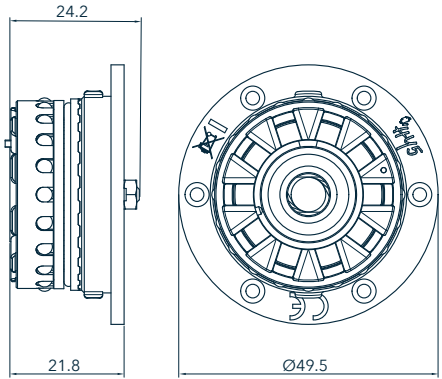
Weight	54g / 61g (including coaxial bushing)
Envelop dimensions	50 x 22 mm
Max. axial load	400N
Max. bending moment	14Nm
Features	rotational force adjustment universal mounting plate

Electrical

Wiring	2 signal wires, 2 wires each for both positive and negative power signals. All 28 AWG, 0.09 mm² CSA, PTFE insulation
Electrical terminations	Wires supplied without terminations. Electrical compatibility and safety to be evaluated by prosthetic supplier when integrated as part of a wider system (i.e. product).

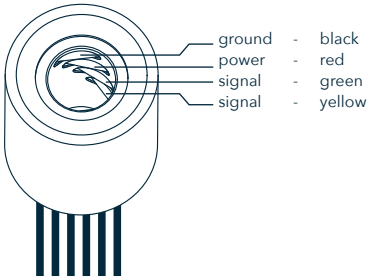
Mounting

Mounting fasteners to prosthetic device (supplied)	M2.5 x 8 mm low head socket screw (x6), torx TX8
Mounting fasteners to universal mounting plate (supplied)	M2.5 x 4 mm low head socket screw (x6), torx TX8
Rotational force adjustment fasteners	M2.5 x 3 mm (x2), hex. 1.3 (0.05 in.)
PCD Mounting fasteners	42,5 mm



3.2 Coaxial bushing

The coaxial bushing contacts and wiring arrangement are shown in the images below. When integrated with a prosthetic hand, the suitability of the wiring and electrical safety should be evaluated as part of the complete system and is the responsibility of the prosthetic manufacturer. Alternative wire arrangements and terminations can be delivered on a project basis.



3.3 Product integration

The MyWrist is a sub-assembly that is intended for integration as part of a separate product, either as a prosthetic hand or as a custom tool or aid. In all such use cases, it is the responsibility of the manufacturer of the final product to evaluate and certify the final product as a whole, and to ensure that the MyWrist product is used within the confines of the details outlined in this user manual.

This specifically includes the evaluation of both the mechanical and electrical suitability of the connector as part of a complete system, and to ensure that the MyWrist is used within the specifications outlined in this manual.

When the MyWrist is used as a platform for mounting tools (i.e. used without the coaxial bushing), it is the responsibility of the CPO or technician to perform a risk assessment on the final assembly, and to ensure that the MyWrist is used within the specifications outlined in this manual.

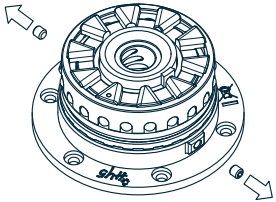
4. USE & CARE

MyWrist is ready to use straight from the box and is delivered with a protective cap which also functions as a tool for easy and continuous adjustment of the rotational force.

To adjust the rotational force, follow these simple steps:

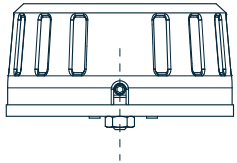
Step 1

Use a 1.3 mm hex (0.05 inch) screwdriver to loosen one set screw on each side



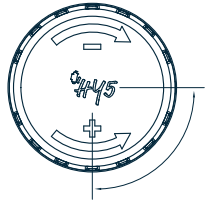
Step 2

Place the protective cap over the quick connect, taking care to align the screw holes with the slots in the cap



Step 3

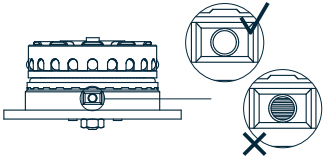
Use the protective cap to adjust the rotational force. Rotate tool anti-clockwise to tighten the rotational force, and clockwise to loosen the rotational force.



It is recommended to adjust no more than 1/4 of a turn without testing (after step 4).

Step 4

Replace the two set screws, taking care to ensure that the screw holes are aligned with the set screw surfaces – these do not have any visible threads.



⚠ CAUTION! — It is very important to follow this step carefully – incorrect assembly can lead to loss of pre-tension and potentially thread damage.

Step 5

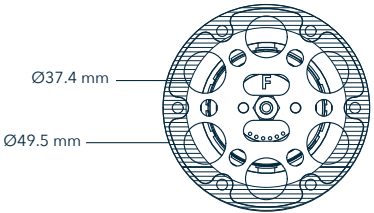
Use one drop of Loctite 243 (or similar medium-strength thread locking agent) on each set-screw before insertion. The set screws should be tightened until they make contact with the inner wall, and then approximately 1/4 of one turn more.

NOTE — The force adjuster should be rotated upwards (anticlockwise - increasing force) no more than 2 complete rotations from its lower position. If it is possible to rotate more than this, the MyWrist should be sent for service / reconditioning.

5. MOUNTING

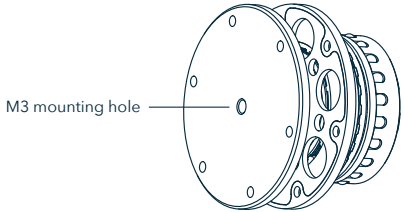
5.1 Prosthetic hand

When mounting the MyWrist unit to a hand prosthetic, ensure to use supplied M2.5x8mm low head socket screws (x6), or equivalent grade screws (A2 stainless steel) of a longer length. Note that when mounted the MyWrist should be supported on the rear face by the area highlighted below (hatched area) as a minimum. Any deviance from this should be only after direct consultation with Hy5.



5.2 Universal mounting plate

When using MyWrist as platform for the mounting of tooling/ accessories, ensure the universal mounting plate is attached to the rear of the MyWrist using the supplied M2.5x4mm low head socket screws (x6), or equivalent grade screws (A2 stainless steel) of a longer length if to be used as accessory mounting aids. The central M3 threaded hole is for mounting purposes. It is the responsibility of the tool/accessory manufacturer to perform a risk assessment evaluating the suitability and robustness of the accessory/tool mounting solution before use.



6. TROUBLESHOOTING

My MyWrist won't connect to the socket, what can I do?
It is possible that your wrist is stuck in the locked position – in this case, it should be reset using a resetting tool – contact Hy5 if you need to purchase such a tool.

I dropped my MyWrist and one of the locking balls is missing, what should I do?
Your MyWrist is robust and will still work with one or even more of the locking balls missing – however, it can lead to a weaker connection. Contact Hy5 or your local clinic for some replacement locking balls.

I am getting inconsistent electrical signals from my MyWrist, what can it be?
Check that the contacts in the coaxial bushing are clean - this is a common place for residue build-up. Use a lint free cloth and contact cleaner to help remove any dirt.

I am quickly losing pre-tension in my MyWrist, what can it be?
Check that the set screws have been inserted into the rotational force adjustment ring. If they are present, take them out and re-insert using the instructions in this manual.

7. COMPATIBILITY & INTERFACES

Your MyWrist is designed to be compatible with most major providers of female quick disconnect components (lamination ring, coupling piece and coaxial plug).

Your MyWrist will work with a 6-contact coaxial plug, although the coaxial bushing does not contain contacts for the two additional signal lines. Please contact Hy5 should you wish to use these additional two signal lines.

8. PRECAUTIONS

The MyWrist (including coaxial bushing) must:

- Not be used in, or splashed excessively by water
- Not be disassembled or reconditioned by anyone other than Hy5Pro personnel or Hy5 certified CPO's & technicians
- Not be adjusted for rotational force by anyone other than Hy5Pro personnel or Hy5 certified CPO's & technicians
- Not be used in temperatures lower than -20˚C or higher than +60˚C
- Not be used outside of the specifications listed in the User Manual
- Only be used with the Hy5 supplied coaxial bushing

Note that failure to adhere to the above precautions may invalidate the product warranty and create a hazardous situation.

9. WARRANTY

MyWrist comes with a 1-year-standard warranty. The warranty covers any defects in materials or workmanship under normal use during the warranty period. The 1-year warranty period begins when the product is taken into use, which should be no later than 6 months from the date of product shipment from Hy5's production facility, Norway.

Taken into use is defined as date of shipment to practitioner/end user. When a claim is made under warranty, this claim must be supported by appropriate documentation, including proof of sale and shipment date.

The warranty will be void on all system components, if any components have been subject to abuse, repair or maintenance by an uncertified person; deliberate damage; loads beyond those for which the product was designed; or by modification or neglect.

10. SAFE DISPOSAL

The MyWrist product is designed such that it can easily be fully disassembled at the end of its life for recycling. Disposal that is not in accordance with the regulations of your country may have a detrimental impact on health and the environment. Please observe the instructions of your national authority pertaining to recycling and disposal of waste materials.

11. QUALITY ASSURANCE

MyWrist is marked with a CE mark indicating that it complies with the requirements of Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment, and Directive 2012/19/EU on waste of electrical and electronic equipment.

When mounted onto or integrated into another product, CE marking of the complete product should be undertaken, including analysis of all relevant EU directives and associated harmonized standards.

WEEE

Separate collection for waste of electrical and electronic equipment

CE mark

Declaration of conformity according to the applicable European Directives and Regulations

Legal manufacturer

Hy5Pro AS, Raufoss Industripark, Bygning 100,
2830 Raufoss, NORWAY

hy5.no