



copyright © 2011-2020 by qbrobotics s.r.l. All rights reserved.

qbrobotics®

qbrobotics.com

Via Mario Giuntini 13
56023, Navacchio - Cascina (PI) Italy
CF/PI IT01702710490
REA PI-177959

scan the QR code below
for further information
about the qb SoftHand



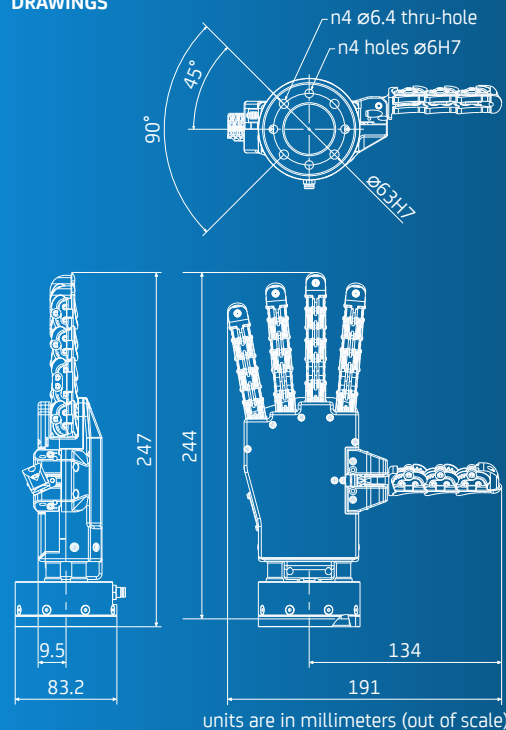
qbrobotics®

qb SoftHand
RESEARCH

[datasheet](#)



DRAWINGS



technical data

| MECHANICAL | UNIT | NOMINAL | MIN | MAX |
|---------------------|------|---------|-----|-----|
| weight | [kg] | 0.77 | — | — |
| joints | [#] | 19 | — | — |
| motor | [#] | 1 | — | — |
| power grasp payload | [kg] | — | — | 2.1 |
| pinch grasp payload | [kg] | — | — | 1.1 |
| hanging payload | [kg] | — | — | 5.0 |
| full closing time | [s] | — | — | 1.1 |

| INERTIAL ¹ | UNIT | X | Y | Z |
|------------------------|------|-----|------|------|
| center of mass, open | [mm] | 2.7 | 82.9 | -0.5 |
| center of mass, closed | [mm] | 1.3 | 76.6 | 3.5 |

¹ all values refer to the right version, mirrors the x value for the left one

| RESILIENCE | UNIT | 1-FINGER | 4-FINGER | 5-FINGER |
|---------------|-------|----------|----------|----------|
| impact energy | [J] | 98 | 98 | 19 |
| impact speed | [m/s] | 4.7 | 4.7 | — |
| impact force | [N] | — | — | 200 |

| ENVIRONMENTAL | UNIT | NOMINAL | MIN | MAX |
|-----------------------|------|---------|-----|-----|
| operating temperature | [°C] | 20 | -5 | 50 |
| storage temperature | [°C] | — | -20 | 50 |
| noise level | [dB] | 62 | 44 | 72 |

| ELECTRICAL | UNIT | NOMINAL | MIN | MAX |
|-------------------|------|---------|------|------|
| operating voltage | [V] | 24 | 23.1 | 24.8 |
| power consumption | [W] | 18 | 1.4 | 30 |

CONTROL

communication protocol: RS485

FEATURES

- plug-and-play
- soft, human-like fingers
- right and left versions
- different cover colours

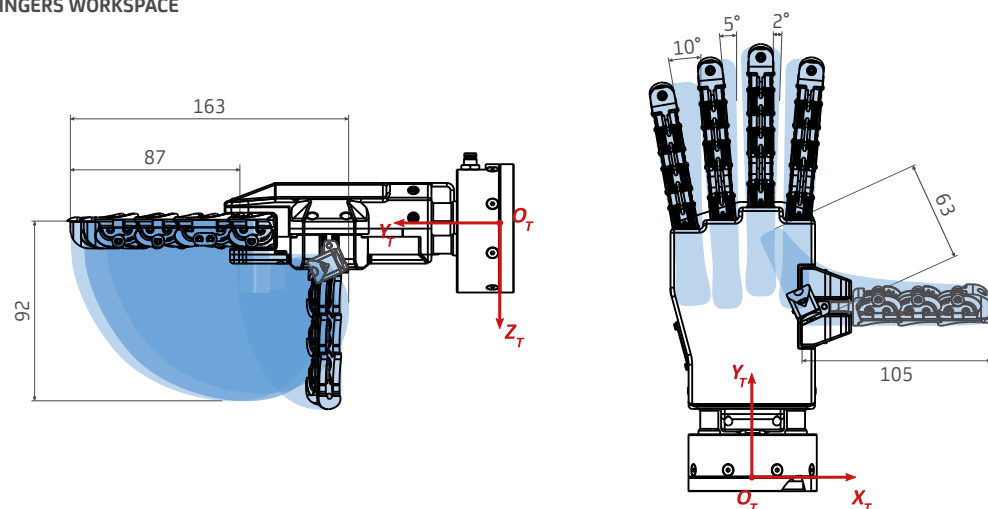
NORMATIVE COMPLIANCE

ISO 9409-1-31.5-4-M5 ISO 9409-1-40-4-M6
 ISO 9409-1-50-4-M6



additional technical data

FINGERS WORKSPACE



KINEMATICS

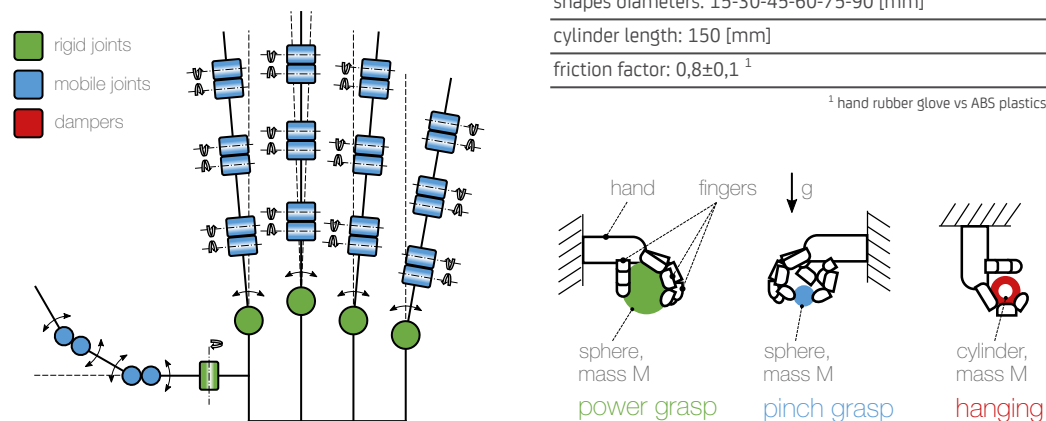
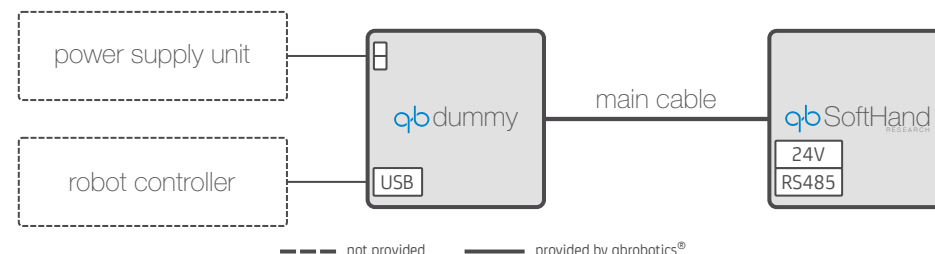


CHART NOTES

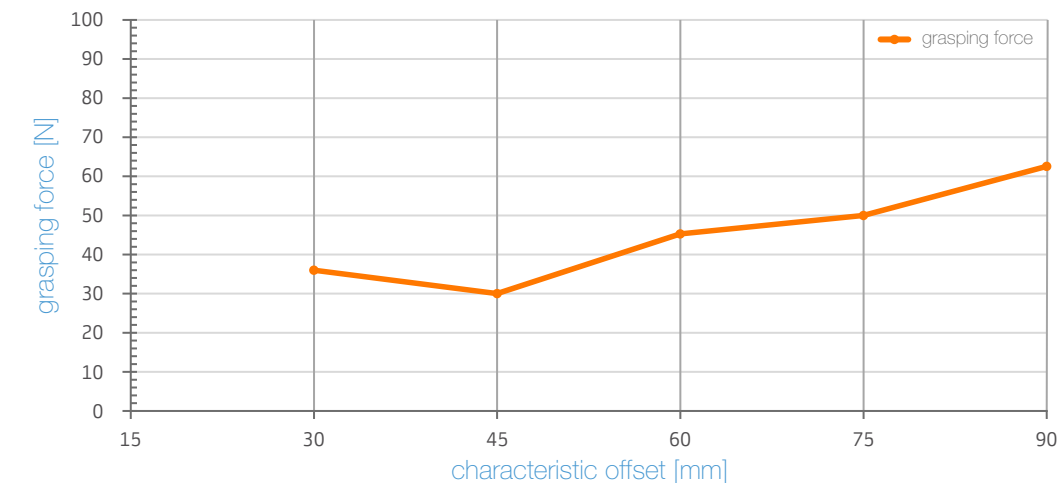
shapes diameters: 15-30-45-60-75-90 [mm]
 cylinder length: 150 [mm]
 friction factor: $0,8 \pm 0,1$ ¹
¹ hand rubber glove vs ABS plastics

ELECTRICAL CONNECTIONS

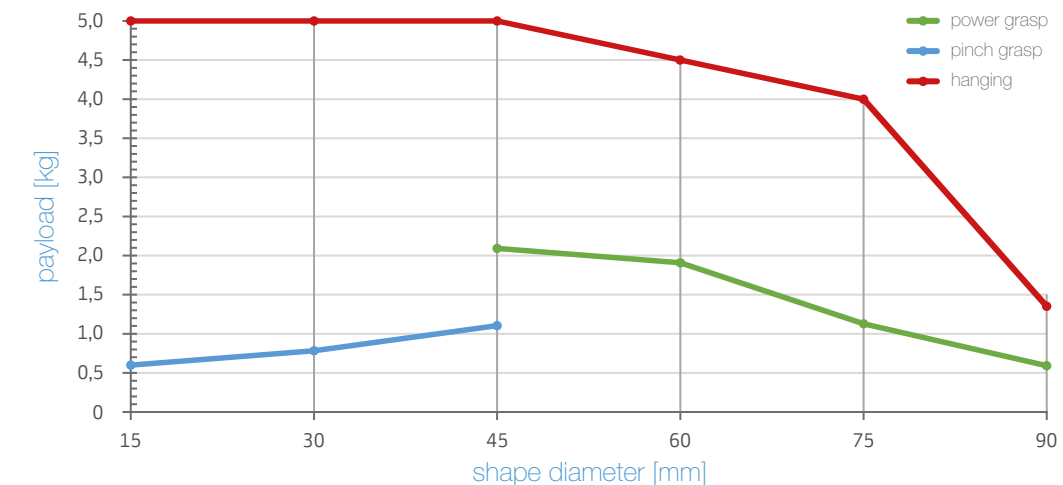


MAXIMUM GRASPING FORCE CHART *

* tests have been carried out using Commander Echo grip tester CM306



MAXIMUM PAYLOAD CHART



CONNECTOR PIN-OUT

