qbrobotics®

qbrobotics.com

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

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

qbrobotics®

qb SoftHand INDUSTRY

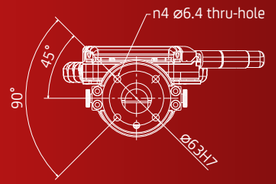
datasheet

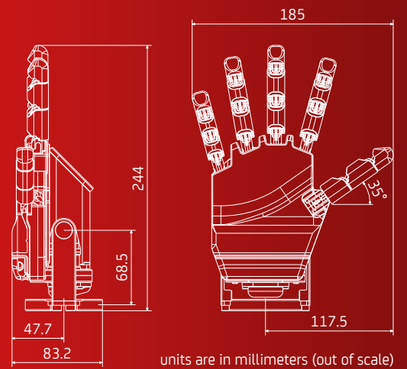
technical data

qb SoftHand INDUSTRY

may 2019, release 1.0.3

DRAWINGS





units are in millimeters (out of scale)

MECHANICAL	UNIT	NOMINAL	MIN	MAX
weight	[kg]	0.99	—	—
wrist mounting range	[deg]	—	0	90
wrist mounting resolution	[deg]	7.5	—	—
power grasp payload	[kg]	—	—	2.0
pinch grasp payload	[kg]	—	—	0.6
hanging payload	[kg]	—	—	5.0
full closing time	[s]	—	—	1.2

INERTIAL	UNIT	X	Y	Z
center of mass	[mm]	2.4	80.5	14.3

ENVIRONMENTAL	UNIT	NOMINAL	MIN	MAX
operating temperature	[°C]	—	-5	50
storage temperature	[°C]	—	-20	50
noise level	[dB]	52	40	61

ELECTRICAL	UNIT	NOMINAL	MIN	MAX
operating voltage	[V]	24	12	50
power consumption	[W]	13	3	15

CONTROL

communication protocols: EtherCAT, UDP, Digital I/Os

FEATURES

- plug-and-play [1]
- soft, human-like fingers
- adjustable wrist mounting position
- splash, water, and dust resistance: IP65
- interchangeable gloves for special applications

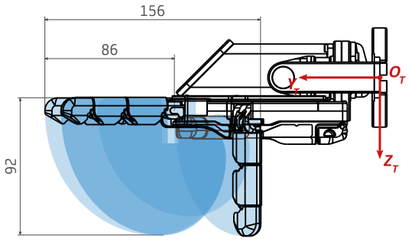
NORMATIVE COMPLIANCE [2]

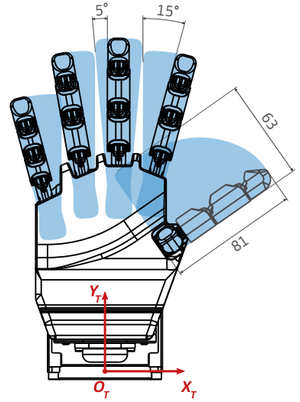
- ISO 12100
- ISO/TS 15066
- ISO 13849-1/-2
- ISO 10210-1/-2
- ISO 9409-1-50-4-M6
- ISO/TR 20218-1
- IEC 60529
- IEC 61000-6-1/-6-2

[1] external driver for best integration
[2] in progress

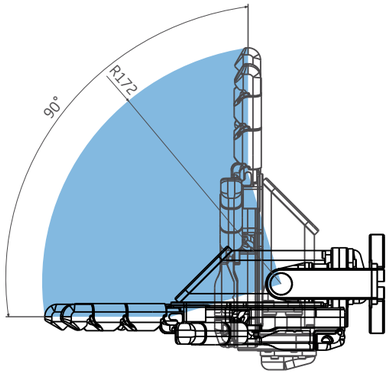
additional technical data

FINGERS WORKSPACE

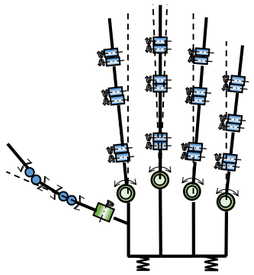




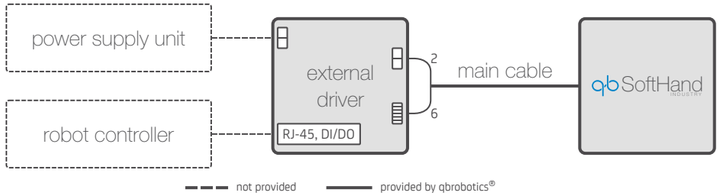
WRIST MOUNTING WORKSPACE



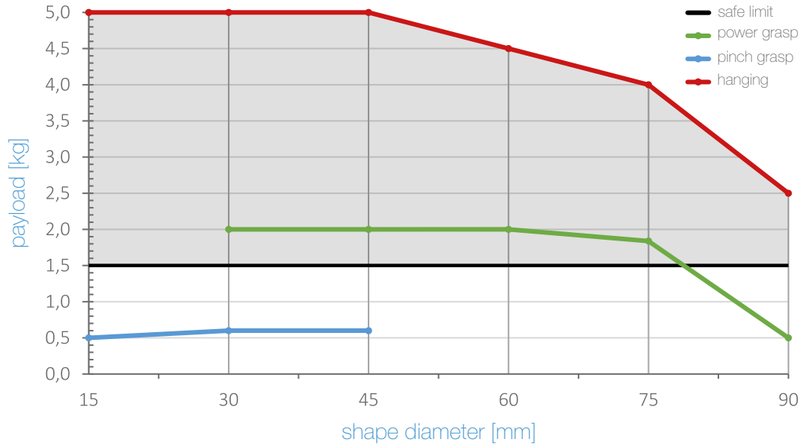
KINEMATICS



ELECTRICAL CONNECTIONS



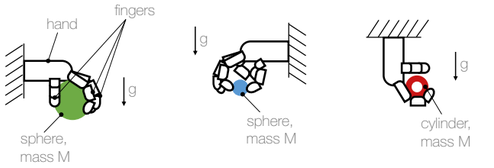
MAXIMUM PAYLOAD CHART



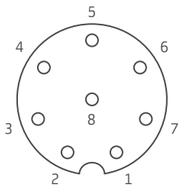
MAXIMUM PAYLOAD CHART NOTES

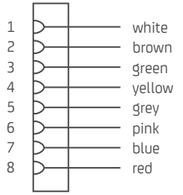
- shapes diameters: 15-30-45-60-75-90 [mm]
- cylinder length: 150 [mm]
- friction factor: 0,8±0,1 [1]
- safe limit is intended w.r.t. ISO/TS 15066 [2,3]

[1] hand rubber glove vs ABS plastics
[2] maximum stopping acceleration = 30m/s²
[3] restricted objects are detailed in the user manual



CONNECTOR PIN-OUT





#	WIRE COLOR	PURPOSE
1	white	SSI 5 VDC
2	brown	SSI GND
3	green	SSI clock +
4	yellow	SSI clock -
5	grey	SSI data +
6	pink	SSI data -
7	blue	motor phase 1
8	red	motor phase 2