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



qbrobotics®

qb SoftHand
INDUSTRY

datasheet

technical data

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-play¹

soft, human-like fingers

adjustable wrist mounting position

splash, water, and dust resistance: IP65

interchangeable gloves for special applications

NORMATIVE COMPLIANCE²

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

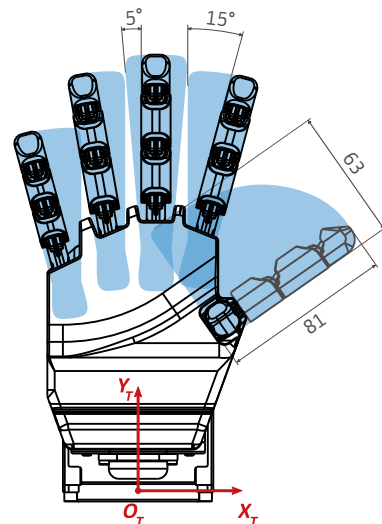
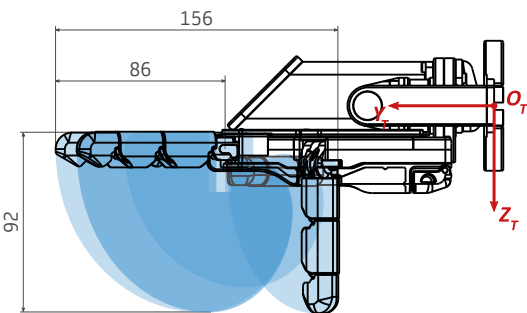
IEC 61000-6-1/-6-2

¹ external driver for best integration

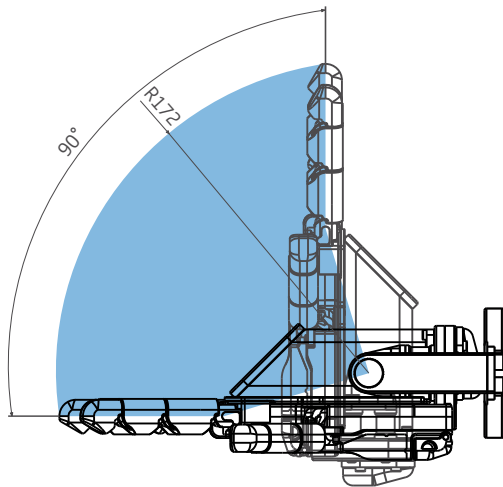
² in progress

additional technical data

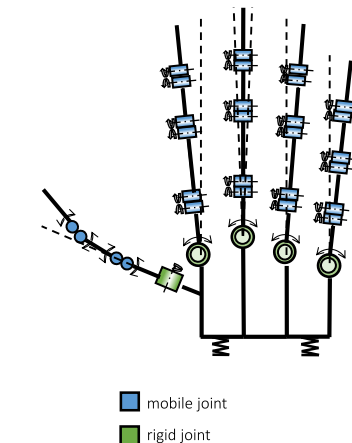
FINGERS WORKSPACE



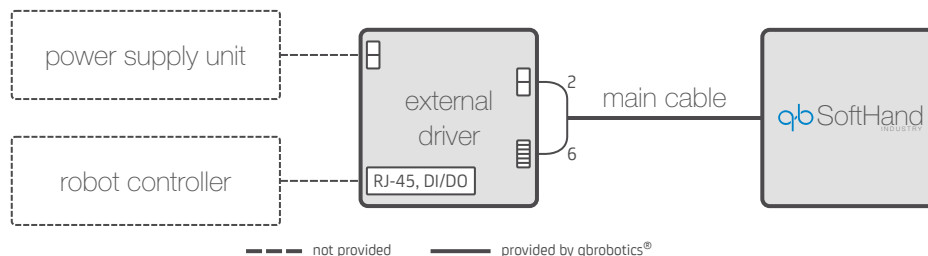
WRIST MOUNTING WORKSPACE



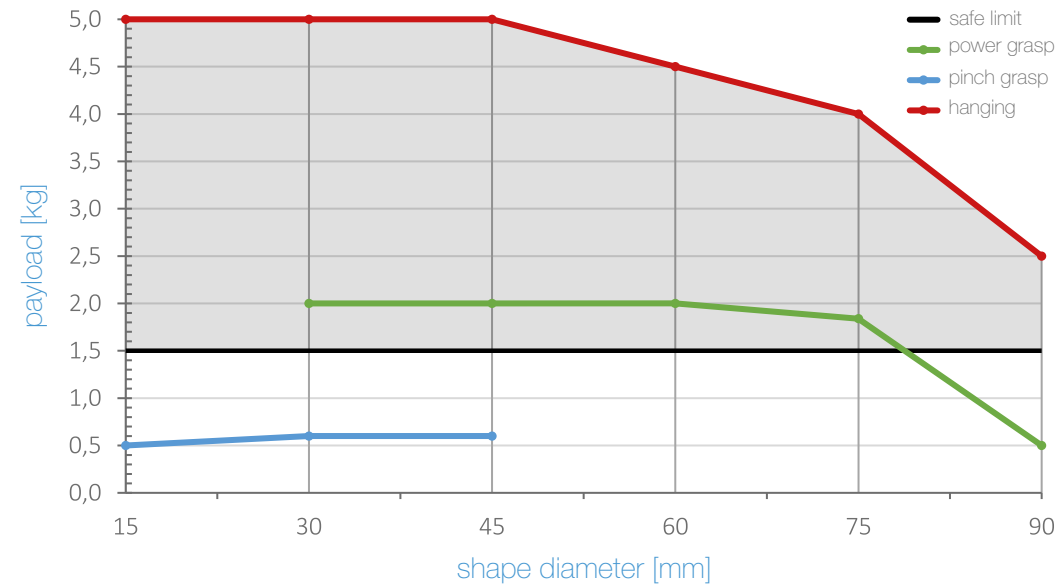
KINEMATICS



ELECTRICAL CONNECTIONS



MAXIMUM PAYLOAD CHART



MAXIMUM PAYLOAD CHART NOTES

shapes diameters: 15-30-45-60-75-90 [mm]

cylinder length: 150 [mm]

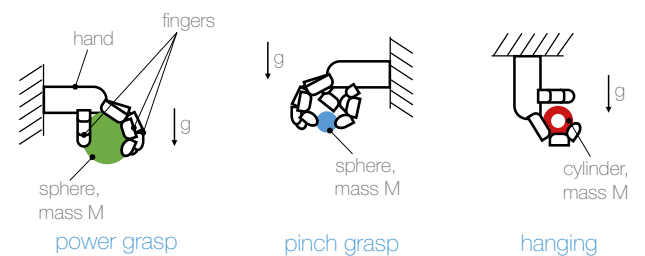
friction factor: $0,8 \pm 0,1$ ¹

safe limit is intended w.r.t. ISO/TS 15066^{2,3}

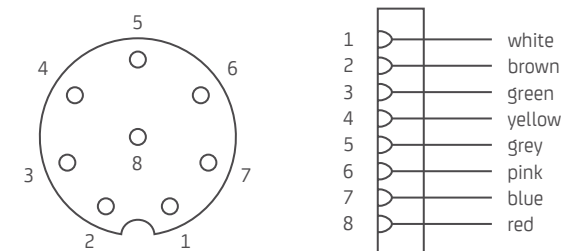
¹ hand rubber glove vs ABS plastics

² maximum stopping acceleration = 30 m/s^2

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

DRAWINGS

