**Number of Axes** 

Dual-arm

7-axis arms

6-axis arm

One 4-5 axis arm

with

joint elasticity in

A1-A4

6-axis arm

6-axis arm

4-axis arm

6-axis arm

Dual-arm robot

6-axis arms

7-axis arm

6-axis arm

ABB - YuMi

ABB - Roberta

Bionic Robotics -

BioRob

**BOSCH - APAS** 

Fanuc - CR-35iA

F&P Personal

Robotics -Prob 1U

F&P Personal

Robotics -

Prob 1R

Kawada Industries

NEXTAGE

KUKA - IIWA

MABI -Speedy 10

Payload

0.5 kg (1.1 lbs)

per arm

8 kg (17.6 lbs)

0.8 kg (1.8 lbs)

nominal load

0.5 kg (1.1 lbs) in

cooperative

operation

2 kg (4.4 lbs)

35 kg (77 lbs)

3 kg (6.6 lbs)

1.5 kg (3.3 lbs)

with P-Grip

3 kg (6.6 lbs)

1.5 kg (3.3 lbs)

with P-Grip

1.5 kg (3.3 lbs) per

7 kg (15.4 lbs)

14 kg (30.8 lbs)

10 kg (22 lbs)

Reach

500 mm

(19.7 in)

800 mm

(31.5 in)

956 mm

(37.6 in)

911 mm

(35.9 in)

1.813 mm

(71.4 in)

481 mm

(18.9 in)

771 mm

(30.3 in)

N/A

7 kg: 911 mm

(35.9 in)

14 kg: 931 mm

(36.7 in)

1384.5 mm

(54.5 in)

Weight

38 kg

(83.6 lbs)

19.5 kg

(42.9 lbs)

6 kg (13.2 lbs) incl.

control,

moving arm from

shoulder only 2 kg

(4.4 lbs)

230 kg

(506 lbs)

990 kg

(1584 lbs)

11 kg

(24.2 lbs)

16 kg

(35.2 lbs)

130 kg

(286.6 lbs)

7 kg: 22.3 kg

(49.2 lbs)

14 kg: 29.5 kg

(65.0 lbs)

28 kg (61.6 lbs)

Speed

1.5 m/s

(59 in/s)

110 °/s

130°/s (A1), 80°/s

(A2), 90°/s (A3-

A4), 330°/s (A5)

Up to 1.3 m/s at

end effector

Arm: 0.5 m/s

(19.7 in/s)

250 mm/s or 750

mm/s if the

working area is

monitored by a

safety sensor

95 to 165°/s

95 to 165°/s

Joints:

133°/s to 300°/s -

according to the

joint

Joints:

7 kg - 90°/s to

180°/s

14 kg - 70°/s to

180°/s

120°/s (A1-A3)

180°/s (A4-A6)

**Targeted Applications** 

Small Part Assembly

**Consumer Products** 

Toy Industry Watch Industry

Inspection

Mobile Platforms Human

Machine Interaction

Palletizing

Machine Tending

**Product Testing** 

Laboratory Automation

Machine Tending

Pick and place

**Process Application** 

Assembly

Packaging

Automotive

Packaging Distribution

Metalworking

Quality Control

Assembly

Service Robotics

Healthcare

**Quality Control** 

Assembly

Service Robotics

Health care

Pick-and-place

Assembly

**Process Application** 

Machine Tending

Pick and place

**Process Application** 

Assembly

Packaging

Machine Feeding

Handling

Assembly

Vision & Sensors

Optional

end effector vison sytem

Flexible force-torque

sensor / independent

force sensors in each

fingertip

Joint torque sensing

using joint elasticity in

A1-A4

2D monochrome

overview camera, 3D

calibrated stereo camera,

touchless triggering

sensor

External cover to

monitor impact, auto-

resume button for fast

restart, integrated vision

is also available

The fingertips are

optionally equipped with

task specific sensors

The fingertips are

optionally equipped with

task specific sensors

Integrated stereo vision

and hand cameras

Integrated position and

torque sensors in each

ioint

N/A