YASKAWA

Handling

MOTOMAN-GP Series

Medium- and Large-size Models (payload from 35 kg to 600 kg)

Compatible with YRC1000 Robot Controller

GOOD DESIGN AWARD 2016

Certified for ISO9001 and ISO14001

JAB QMS Accreditation R009

JQA-0813

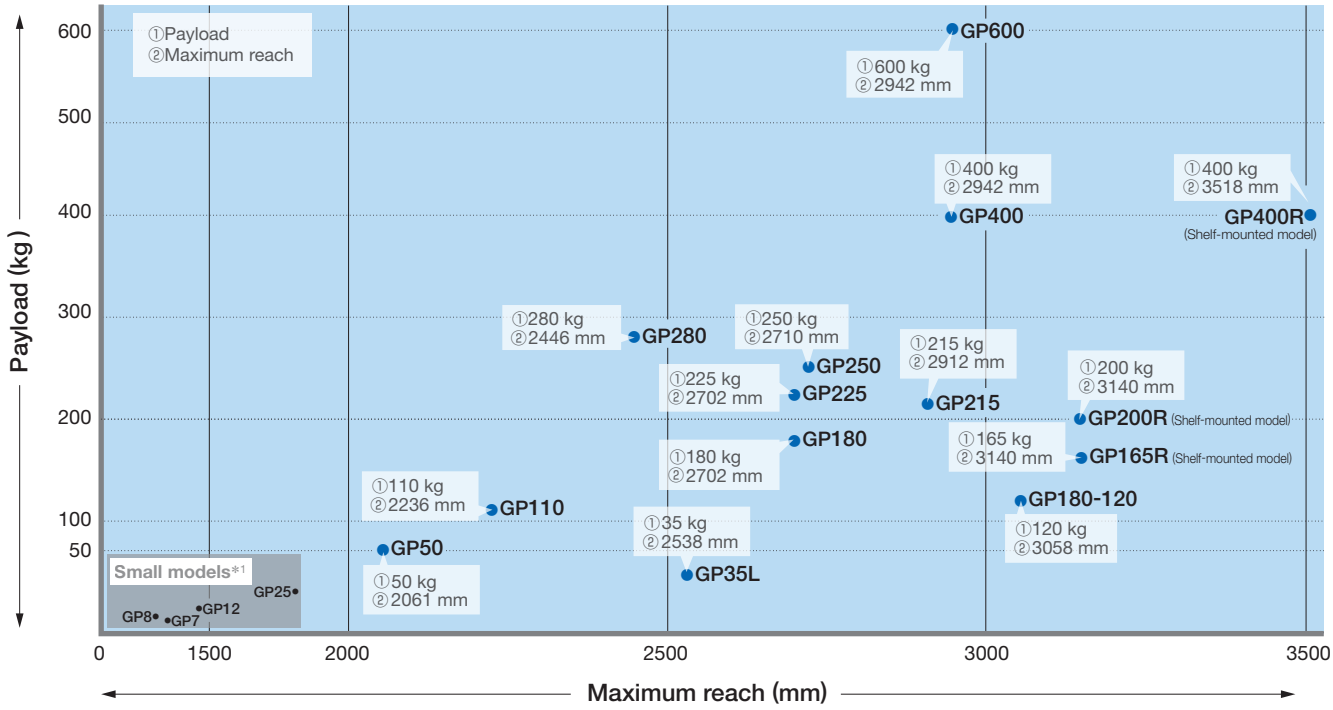
JQA-EM0202

An extensive lineup to smartly solve problems at production sites

MOTOMAN-GP Series

Yaskawa has an extensive lineup of models in the MOTOMAN-GP series to support the diverse needs of customers.

Product Lineup

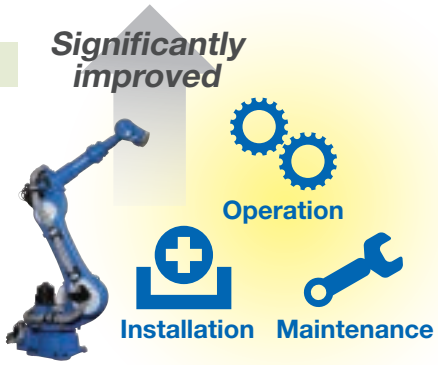


*1 : Refer to the MOTOMAN-GP Series Small Models (max. payload 25 kg) catalog (CHEP C941111 00) for details.

POINT **Improve equipment installation, operation, and maintenance**

Easy maintenance

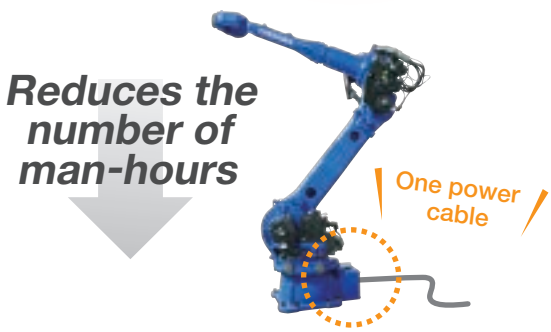
- Zero position data can be saved without the need to connect to a battery when replacing wire harness.
- Number of cables and connectors have been reduced for better work efficiency.



Reduced wiring time

- Power cable is reduced to one cable*2, which reduces wiring time.

*2 : Two power cables are required for GP400, GP400R, and GP600.



Optional Software

3D Vision Package

MotoSight3D

Bin picking, which used to be impossible with robots, can be automated with the high-performance 3D vision package.

Range of detectable workpieces have increased

Works exceptionally well with metal workpieces

◎ Greasy parts with high reflection of light can be handled.
◎ Parts with curved surface or with complicated structure can be handled. ➡ Optimal for pressed parts for automobile.
◎ Target parts size (approx.)
10×10 mm (when using RV300) to 1,000×1,000 mm (when using RV1100)

Highly accurate detection capability

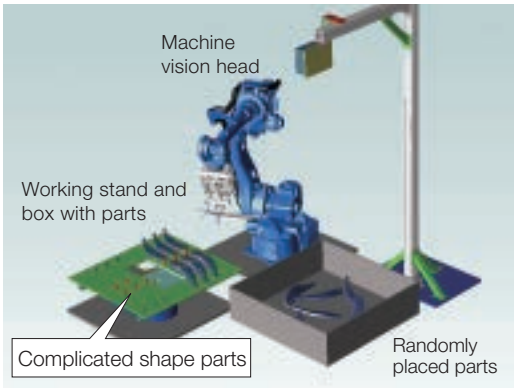
Reduces the number of processes

◎ 3D position posture (6 degree-of-freedom) can be detected with one measurement.
◎ Temporary placing table or other positioning sensors are not needed.

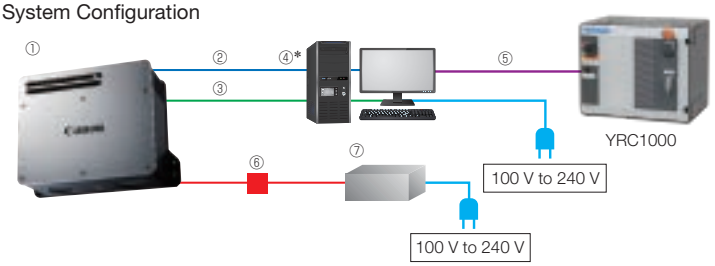
Very simple setting operation

Reduces setup time

◎ Workpiece can be registered by inputting the CAD data and imaging the piled parts.



■ System Configuration



*: Please contact us if you are planning to use other PCs (general PCs, etc.). We will provide information on how to select PCs.

■ Device Composition Table

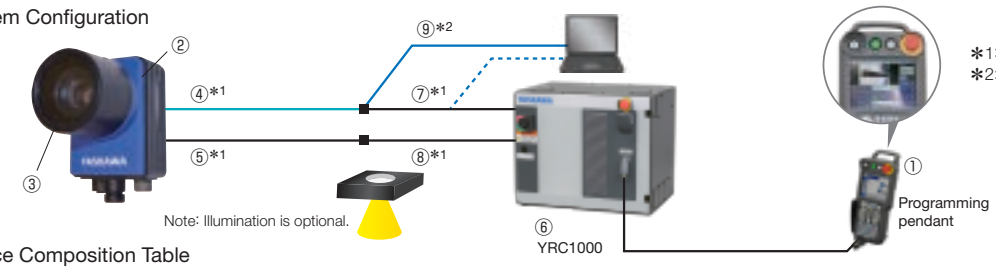
NO.	Name	Specification
①	Machine Vision Head	Select from RV1100/ RV500/RV300
②	Communications Cable (PC - sensor)	Cable length: 16 m (optional: 36 m)
③	Vision Cable (PC - sensor)	Cable length: 16 m (optional: 36 m)
④*	PC (optional)	Industrial PC
⑤	Communications Cable (PC - YRC1000)	Cable length: 10 m
⑥	Power Cable (thin)	Cable length: 5 m
	Power Cable (thick)	Cable length: 10 m
⑦	Power Source Box and Cable	—

2D Vision Package

MotoSight2D

MotoSight2D is a vision package that enables the operation of vision systems using a programming pendant with YASKAWA's own software.

■ System Configuration



*1: Cables are all flexible/mobile cables.
*2: Use by connecting to ⑦ only when connecting to a PC.

■ Device Composition Table

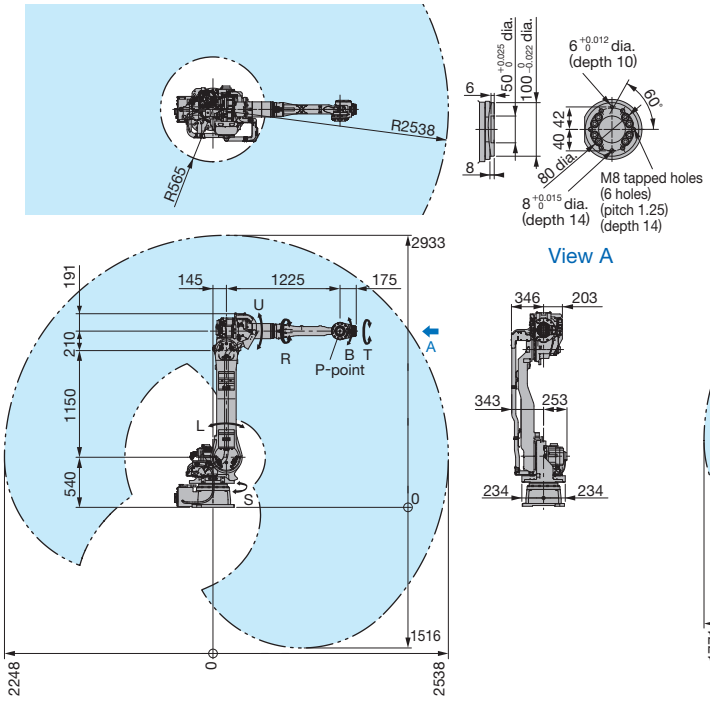
NO.	Name	Specification
①	MotoSight2D (PP application + MotoPlus + macro job)	Settings installed prior to shipping
②	2D Vision Camera (built-in image processing device, with IP67 resin lens cover)	Select from Entry/Standard/High specification
③	Lens	Focal distance: 9 mm/12.5 mm/16 mm/25 mm/50 mm
④	Camera Communications Cable	Cable length: 5 m
⑤	Camera Power Cable	Cable length: 5 m
⑥	Customization of YRC1000 Controller for MotoSight2D Functions	Connector panel attached, wiring (Ethernet) of power cable and communications cable
⑦	Camera Communications Extension Cable	Cable length: 5 m (standard)/15 m, 30 m (optional) (total cable length up to 35 m)
⑧	Camera Power Extension Cable	Cable length: 5 m (standard)/15 m, 30 m (optional) (total cable length up to 35 m)
⑨	Cable for PC Connection	Cable length: 0.5 m (connect to ④ camera communications cable)

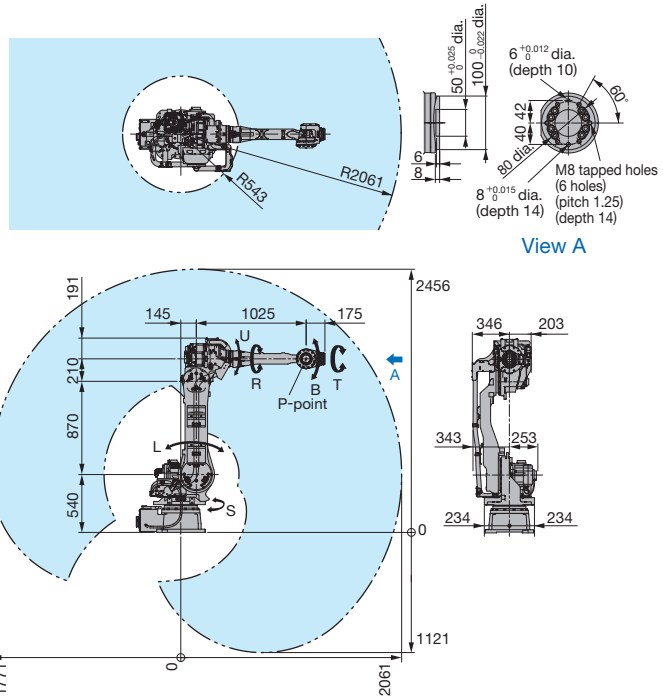
GP35L

GP50

■Dimensions Units: mm : P-point Maximum Envelope

Note: Refer to individual dimension diagrams for detailed dimensions and specifications of the following models.



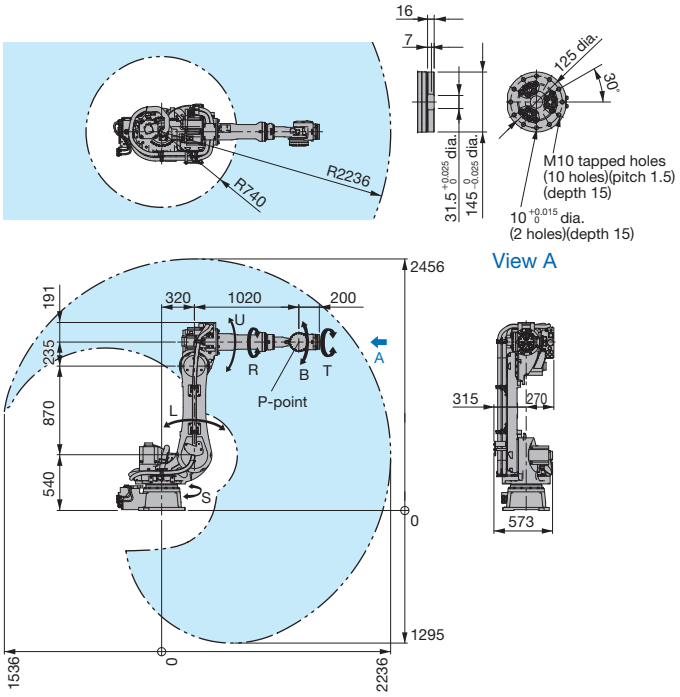


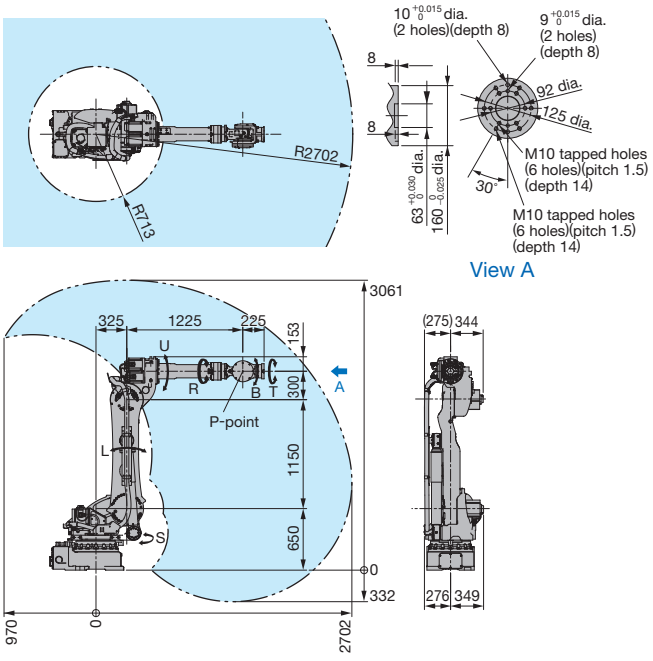
Specifications		GP35L	GP50
Type		YR-1-06VXL35-A00	YR-1-06VX50-A00
Controlled Axis		6 (vertically articulated)	6 (vertically articulated)
Payload	Wrist	35 kg	50 kg
	U -arm	10 kg	10 kg
Repeatability*1		±0.07 mm	±0.07 mm
Range of Motion	S -axis (turning)	−180°−+180°	−180°−+180°
	L -axis (lower arm)	− 90°−+135°	− 90°−+135°
	U -axis (upper arm)*2	− 80°−+206°	− 80°−+206°
	R -axis (wrist roll)	−360°−+360°	−360°−+360°
	B -axis (wrist pitch/yaw)	−125°−+125°	−125°−+125°
	T -axis (wrist twist)	−360°−+360°	−360°−+360°
Maximum Speed	S -axis (turning)	3.14 rad/s, 180°/s	3.14 rad/s, 180°/s
	L -axis (lower arm)	2.44 rad/s, 140°/s	3.11 rad/s, 178°/s
	U -axis (upper arm)	3.11 rad/s, 178°/s	3.11 rad/s, 178°/s
	R -axis (wrist roll)	4.36 rad/s, 250°/s	4.36 rad/s, 250°/s
	B -axis (wrist pitch/yaw)	4.36 rad/s, 250°/s	4.36 rad/s, 250°/s
	T -axis (wrist twist)	6.28 rad/s, 360°/s	6.28 rad/s, 360°/s
Allowable Moment	R -axis (wrist roll)	147 N·m	216 N·m
	B -axis (wrist pitch/yaw)	147 N·m	216 N·m
	T -axis (wrist twist)	78 N·m	147 N·m
Allowable Inertia (GD²/4)	R -axis (wrist roll)	10 kg·m²	28 kg·m²
	B -axis (wrist pitch/yaw)	10 kg·m²	28 kg·m²
	T -axis (wrist twist)	4 kg·m²	11 kg·m²
Approx. Mass		600 kg	570 kg
IEC Protection Class		Body: IP54, Wrist: IP67	
Ambient Conditions	Temperature	0 ℃ to +45 ℃	
	Humidity	20% to 80%RH (non-condensing)	
	Vibration	4.9 m/s² (0.5 G) or less	
	Altitude	1000 m or less	
	Others	Free from corrosive gas or liquid, or explosive gas or liquid Free from exposure to water, oil, or dust Free from excessive electrical noise (plasma) Free from strong magnetic fields	
Power Requirements*3		4.5 kVA	
Mounting*4		Floor, ceiling, wall, tilt	

*1: Conforms to ISO 9283.
*2: The range of motion of the U-axis itself. Not with respect to the ground. (Except for parallel-link type models)
*3: Varies in accordance with applications and motion patterns.
*4: There are motion limitations on S-axis for wall, tilt mounting type.
Note: SI units are used for the specifications.

GP110

GP180





Specifications		GP110	GP180
Type		YR-1-06VX110-A00	YR-1-06VX180-A00
Controlled Axis		6 (vertically articulated)	6 (vertically articulated)
Payload	Wrist	110 kg	180 kg
	U -arm	10 kg	30 kg
Repeatability*1		±0.07 mm	±0.2 mm
Range of Motion	S -axis (turning)	−180° −+180°	−180° −+180°
	L -axis (lower arm)	− 90° −+155°	− 60° −+ 76°
	U -axis (upper arm)*2	− 80° −+ 90°	− 86° −+ 90°
	R -axis (wrist roll)	−360° −+360°	−360° −+360°
	B -axis (wrist pitch/yaw)	−125° −+125°	−130° −+130°
	T -axis (wrist twist)	−360° −+360°	−360° −+360°
Maximum Speed	S -axis (turning)	2.45 rad/s, 140°/s	2.18 rad/s, 125°/s
	L -axis (lower arm)	1.92 rad/s, 110°/s	2.01 rad/s, 115°/s
	U -axis (upper arm)	2.27 rad/s, 130°/s	2.18 rad/s, 125°/s
	R -axis (wrist roll)	3.05 rad/s, 175°/s	3.18 rad/s, 182°/s
	B -axis (wrist pitch/yaw)	3.05 rad/s, 175°/s	3.05 rad/s, 175°/s
	T -axis (wrist twist)	4.44 rad/s, 255°/s	4.63 rad/s, 265°/s
Allowable Moment	R -axis (wrist roll)	721 N·m	1000 N·m
	B -axis (wrist pitch/yaw)	721 N·m	1000 N·m
	T -axis (wrist twist)	294 N·m	618 N·m
Allowable Inertia (GD²/4)	R -axis (wrist roll)	60 kg·m²	90 kg·m²
	B -axis (wrist pitch/yaw)	60 kg·m²	90 kg·m²
	T -axis (wrist twist)	33.7 kg·m²	46.3 kg·m²
Approx. Mass		660 kg	1020 kg
IEC Protection Class		Body: IP54, Wrist: IP67	
Ambient Conditions	Temperature	0 ℃ to +45 ℃	
	Humidity	20% to 80%RH (non-condensing)	
	Vibration	4.9 m/s² (0.5 G) or less	
	Altitude	1000 m or less	
	Others	Free from corrosive gas or liquid, or explosive gas or liquid Free from exposure to water, oil, or dust Free from excessive electrical noise (plasma) Free from strong magnetic fields	
Power Requirements*3		5.0 kVA	
Mounting		Floor	

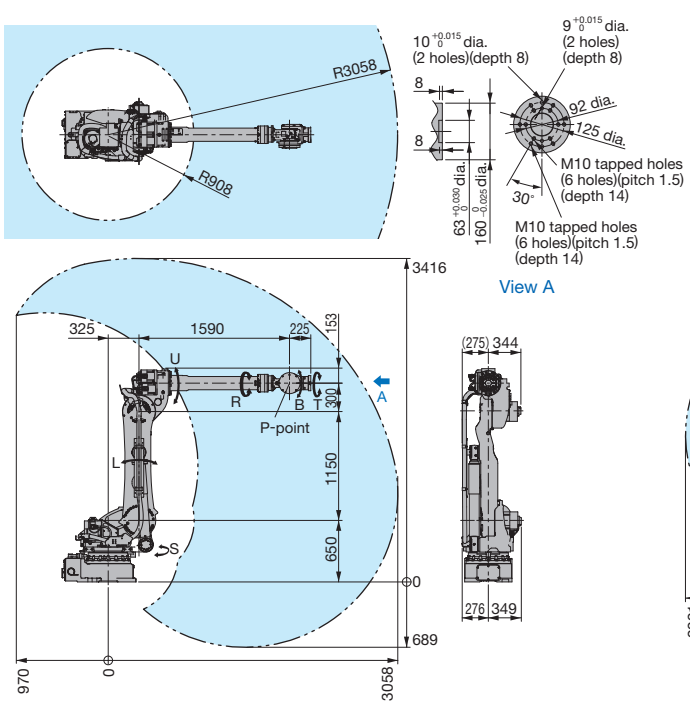
*1: Conforms to ISO 9283.
*2: The range of motion of the U-axis itself. Not with respect to the ground. (Except for parallel-link type models)
*3: Varies in accordance with applications and motion patterns.
Note: SI units are used for the specifications.

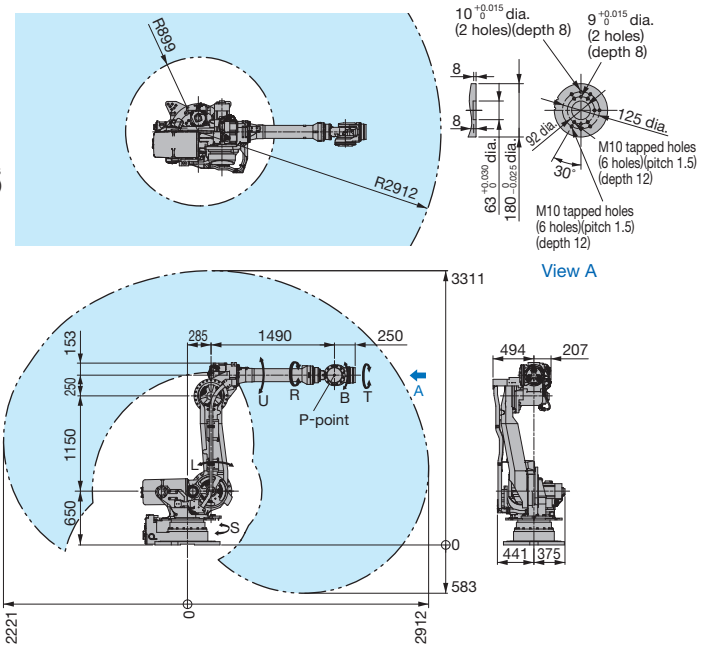
GP180-120

GP215

■Dimensions Units: mm ▭: P-point Maximum Envelope

Note: Refer to individual dimension diagrams for detailed dimensions and specifications of the following models.



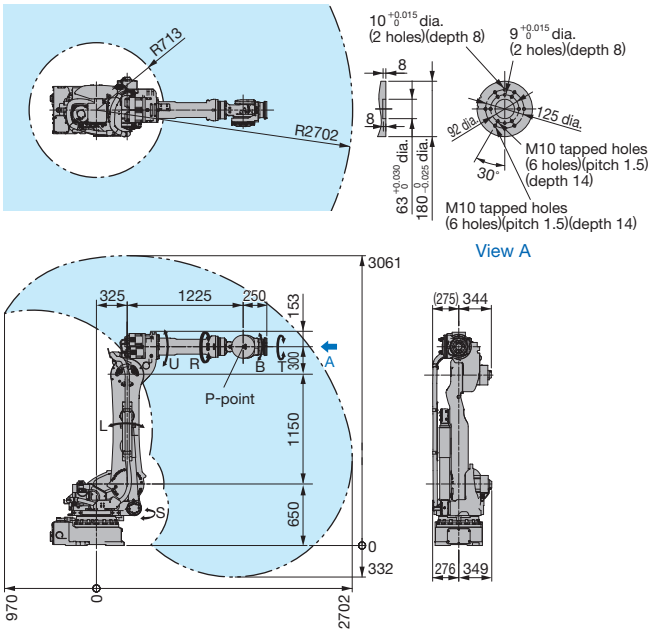


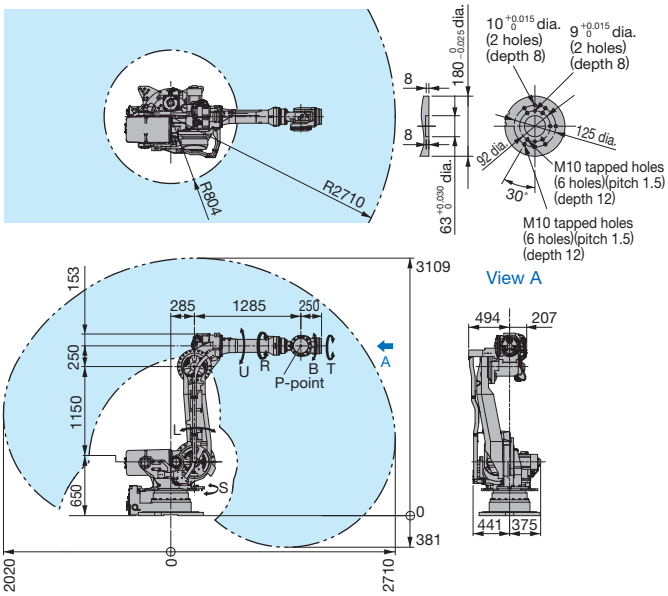
Specifications		GP180-120	GP215
Type		YR-1-06VX180-120-A00	YR-1-06VX215-A00
Controlled Axis		6 (vertically articulated)	6 (vertically articulated)
Payload	Wrist	120 kg	215 kg
	U -arm	30 kg	50 kg
Repeatability*1		±0.2 mm	±0.2 mm
Range of Motion	S -axis (turning)	−180°−+180°	−180°−+180°
	L -axis (lower arm)	− 60°−+ 76°	− 60°−+ 76°
	U -axis (upper arm)*2	− 86°−+ 90°	−77.8°−+197°
	R -axis (wrist roll)	−360°−+360°	−360°−+360°
	B -axis (wrist pitch/yaw)	−130°−+130°	−125°−+125°
	T -axis (wrist twist)	−360°−+360°	−360°−+360°
Maximum Speed	S -axis (turning)	2.18 rad/s, 125°/s	1.75 rad/s, 100°/s
	L -axis (lower arm)	2.01 rad/s, 115°/s	1.57 rad/s, 90°/s
	U -axis (upper arm)	2.18 rad/s, 125°/s	1.69 rad/s, 97°/s
	R -axis (wrist roll)	3.18 rad/s, 182°/s	2.09 rad/s, 120°/s
	B -axis (wrist pitch/yaw)	3.05 rad/s, 175°/s	2.09 rad/s, 120°/s
	T -axis (wrist twist)	4.63 rad/s, 265°/s	3.32 rad/s, 190°/s
Allowable Moment	R -axis (wrist roll)	883 N·m	1176 N·m
	B -axis (wrist pitch/yaw)	883 N·m	1176 N·m
	T -axis (wrist twist)	520 N·m	710 N·m
Allowable Inertia (GD²/4)	R -axis (wrist roll)	79 kg·m²	317 kg·m²
	B -axis (wrist pitch/yaw)	79 kg·m²	317 kg·m²
	T -axis (wrist twist)	40 kg·m²	200 kg·m²
Approx. Mass		1090 kg	1340 kg
IEC Protection Class		Body: IP54, Wrist: IP67	
Ambient Conditions	Temperature	0 ℃ to +45 ℃	
	Humidity	20% to 80%RH (non-condensing)	
	Vibration	4.9 m/s² (0.5 G) or less	
	Altitude	1000 m or less	
	Others	Free from corrosive gas or liquid, or explosive gas or liquid Free from exposure to water, oil, or dust Free from excessive electrical noise (plasma) Free from strong magnetic fields	
Power Requirements*3		5.0 kVA	
Mounting		Floor	

*1: Conforms to ISO 9283.
*2: The range of motion of the U-axis itself. Not with respect to the ground. (Except for parallel-link type models)
*3: Varies in accordance with applications and motion patterns.
Note: SI units are used for the specifications.

GP225

GP250





Specifications		GP225	GP250
Type		YR-1-06VX225-A00	YR-1-06VX250-A00
Controlled Axis		6 (vertically articulated)	6 (vertically articulated)
Payload	Wrist	225 kg	250 kg
	U -arm	30 kg	50 kg
Repeatability*1		±0.2 mm	±0.2 mm
Range of Motion	S -axis (turning)	−180° −+180°	−180° −+180°
	L -axis (lower arm)	− 60° −+ 76°	− 60° −+ 76°
	U -axis (upper arm)*2	− 86° −+ 90°	−77.8° −+197°
	R -axis (wrist roll)	−360° −+360°	−360° −+360°
	B -axis (wrist pitch/yaw)	−125° −+125°	−125° −+125°
	T -axis (wrist twist)	−360° −+360°	−360° −+360°
Maximum Speed	S -axis (turning)	2.09 rad/s, 120°/s	1.75 rad/s, 100°/s
	L -axis (lower arm)	1.69 rad/s, 97°/s	1.57 rad/s, 90°/s
	U -axis (upper arm)	2.01 rad/s, 115°/s	1.69 rad/s, 97°/s
	R -axis (wrist roll)	2.53 rad/s, 145°/s	2.09 rad/s, 120°/s
	B -axis (wrist pitch/yaw)	2.53 rad/s, 145°/s	2.09 rad/s, 120°/s
	T -axis (wrist twist)	3.84 rad/s, 220°/s	3.32 rad/s, 190°/s
Allowable Moment	R -axis (wrist roll)	1372 N·m	1385 N·m
	B -axis (wrist pitch/yaw)	1372 N·m	1385 N·m
	T -axis (wrist twist)	735 N·m	735 N·m
Allowable Inertia (GD²/4)	R -axis (wrist roll)	145 kg·m²	317 kg·m²
	B -axis (wrist pitch/yaw)	145 kg·m²	317 kg·m²
	T -axis (wrist twist)	84 kg·m²	200 kg·m²
Approx. Mass		1080 kg	1345 kg
IEC Protection Class		Body: IP54, Wrist: IP67	
Ambient Conditions	Temperature	0 ℃ to +45 ℃	
	Humidity	20% to 80%RH (non-condensing)	
	Vibration	4.9 m/s² (0.5 G) or less	
	Altitude	1000 m or less	
	Others	Free from corrosive gas or liquid, or explosive gas or liquid Free from exposure to water, oil, or dust Free from excessive electrical noise (plasma) Free from strong magnetic fields	
Power Requirements*3		5.0 kVA	
Mounting		Floor	

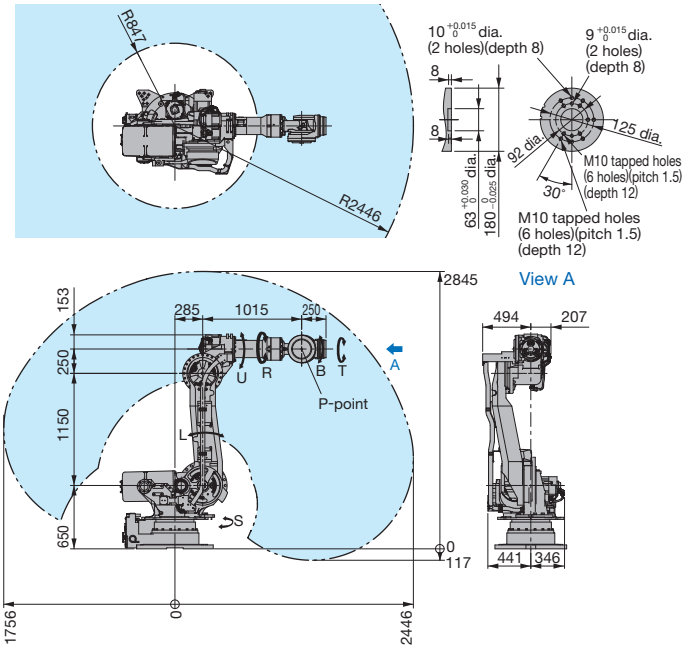
*1: Conforms to ISO 9283.
*2: The range of motion of the U-axis itself. Not with respect to the ground. (Except for parallel-link type models)
*3: Varies in accordance with applications and motion patterns.
Note: SI units are used for the specifications.

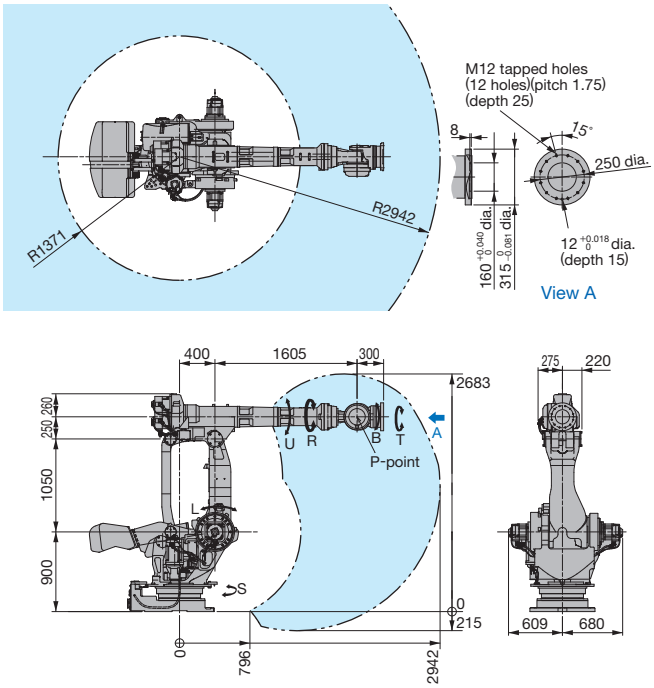
GP280

GP400

■Dimensions Units: mm : P-point Maximum Envelope

Note: Refer to individual dimension diagrams for detailed dimensions and specifications of the following models.





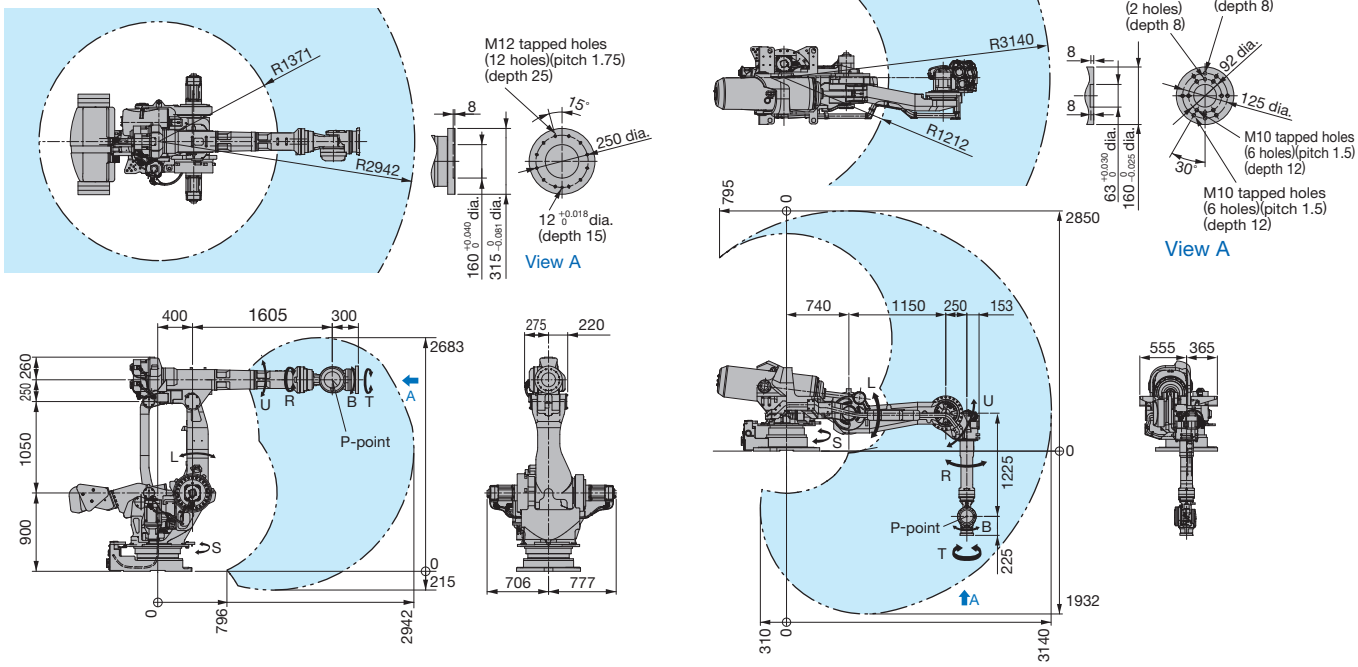
Specifications		GP280	GP400
Type		YR-1-06VX280-A00	YR-1-06VX400-A00
Controlled Axis		6 (vertically articulated)	6 (vertically articulated)
Payload	Wrist	280 kg	400 kg
	U -arm	30 kg	50 kg
Repeatability*1		±0.2 mm	±0.3 mm
Range of Motion	S -axis (turning)	−180°−+180°	−180°−+180°
	L -axis (lower arm)	− 60°−+ 76°	− 55°−+ 61°
	U -axis (upper arm)*2	−77.8°−+197°	−113°−+ 18°
	R -axis (wrist roll)	−360°−+360°	−360°−+360°
	B -axis (wrist pitch/yaw)	−125°−+125°	−115°−+115°
	T -axis (wrist twist)	−360°−+360°	−360°−+360°
Maximum Speed	S -axis (turning)	1.57 rad/s, 90°/s	1.78 rad/s, 102°/s
	L -axis (lower arm)	1.39 rad/s, 80°/s	1.69 rad/s, 97°/s
	U -axis (upper arm)	1.57 rad/s, 90°/s	1.69 rad/s, 97°/s
	R -axis (wrist roll)	2.01 rad/s, 115°/s	1.40 rad/s, 80°/s
	B -axis (wrist pitch/yaw)	1.92 rad/s, 110°/s	1.40 rad/s, 80°/s
	T -axis (wrist twist)	3.32 rad/s, 190°/s	3.00 rad/s, 172°/s
Allowable Moment	R -axis (wrist roll)	1333 N·m	2989 N·m
	B -axis (wrist pitch/yaw)	1333 N·m	2989 N·m
	T -axis (wrist twist)	706 N·m	1343 N·m
Allowable Inertia (GD²/4)	R -axis (wrist roll)	142 kg·m²	500 kg·m²
	B -axis (wrist pitch/yaw)	142 kg·m²	500 kg·m²
	T -axis (wrist twist)	79 kg·m²	315 kg·m²
Approx. Mass		1300 kg	2840 kg
IEC Protection Class		Body: IP54, Wrist: IP67	Body: IP30, Wrist: IP67
Ambient Conditions	Temperature	0 ℃ to +45 ℃	
	Humidity	20% to 80%RH (non-condensing)	
	Vibration	4.9 m/s² (0.5 G) or less	
	Altitude	1000 m or less	
	Others	Free from corrosive gas or liquid, or explosive gas or liquid Free from exposure to water, oil, or dust Free from excessive electrical noise (plasma) Free from strong magnetic fields	
Power Requirements*3		5.0 kVA	7.0 kVA
Mounting		Floor	

*1: Conforms to ISO 9283.
*2: The range of motion of the U-axis itself. Not with respect to the ground. (Except for parallel-link type models)
*3: Varies in accordance with applications and motion patterns.
Note: SI units are used for the specifications.

GP600

Shelf-mounted model

GP165R



Specifications		GP600	GP165R
Type		YR-1-06VX600-A00	YR-1-06VR165-A00
Controlled Axis		6 (vertically articulated)	6 (vertically articulated)
Payload	Wrist	600 kg	165 kg
	U -arm	50 kg	30 kg
Repeatability*1		±0.3 mm	±0.2 mm
Range of Motion	S -axis (turning)	−180° −+180°	−180° −+180°
	L -axis (lower arm)	− 55° −+ 61°	−130° −+ 80°
	U -axis (upper arm)*2	−113° −+ 18°	−79.4° −+ 78°
	R -axis (wrist roll)	−360° −+360°	−360° −+360°
	B -axis (wrist pitch/yaw)	−115° −+115°	−130° −+130°
	T -axis (wrist twist)	−360° −+360°	−360° −+360°
Maximum Speed	S -axis (turning)	1.43 rad/s, 82°/s	1.83 rad/s, 105°/s
	L -axis (lower arm)	1.43 rad/s, 82°/s	1.83 rad/s, 105°/s
	U -axis (upper arm)	1.43 rad/s, 82°/s	1.83 rad/s, 105°/s
	R -axis (wrist roll)	1.40 rad/s, 80°/s	3.05 rad/s, 175°/s
	B -axis (wrist pitch/yaw)	1.40 rad/s, 80°/s	2.62 rad/s, 150°/s
	T -axis (wrist twist)	2.83 rad/s, 162°/s	4.19 rad/s, 240°/s
Allowable Moment	R -axis (wrist roll)	3430 N·m	921 N·m
	B -axis (wrist pitch/yaw)	3430 N·m	921 N·m
	T -axis (wrist twist)	1764 N·m	490 N·m
Allowable Inertia (GD²/4)	R -axis (wrist roll)	520 kg·m²	85 kg·m²
	B -axis (wrist pitch/yaw)	520 kg·m²	85 kg·m²
	T -axis (wrist twist)	350 kg·m²	45 kg·m²
Approx. Mass		3035 kg	1760 kg
IEC Protection Class		Body: IP30, Wrist: IP67	Body: IP54, Wrist: IP67
Ambient Conditions	Temperature	0 ℃ to +45 ℃	
	Humidity	20% to 80%RH (non-condensing)	
	Vibration	4.9 m/s² (0.5 G) or less	
	Altitude	1000 m or less	
	Others	Free from corrosive gas or liquid, or explosive gas or liquid Free from exposure to water, oil, or dust Free from excessive electrical noise (plasma) Free from strong magnetic fields	
Power Requirements*3		7.0 kVA	5.0 kVA
Mounting		Floor	Shelf

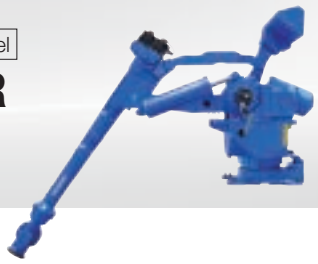
*1: Conforms to ISO 9283.
*2: The range of motion of the U-axis itself. Not with respect to the ground. (Except for parallel-link type models)
*3: Varies in accordance with applications and motion patterns.
Note: SI units are used for the specifications.

Shelf-mounted model

GP200R

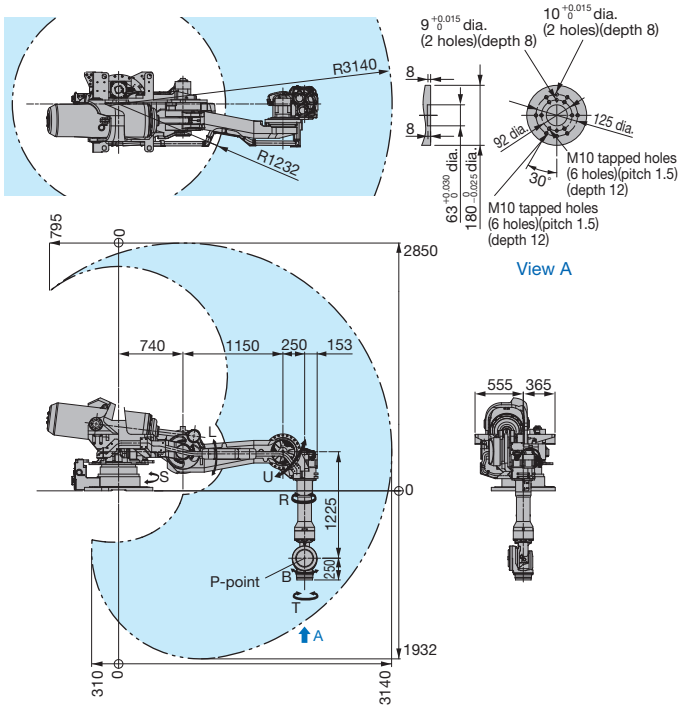
Shelf-mounted model

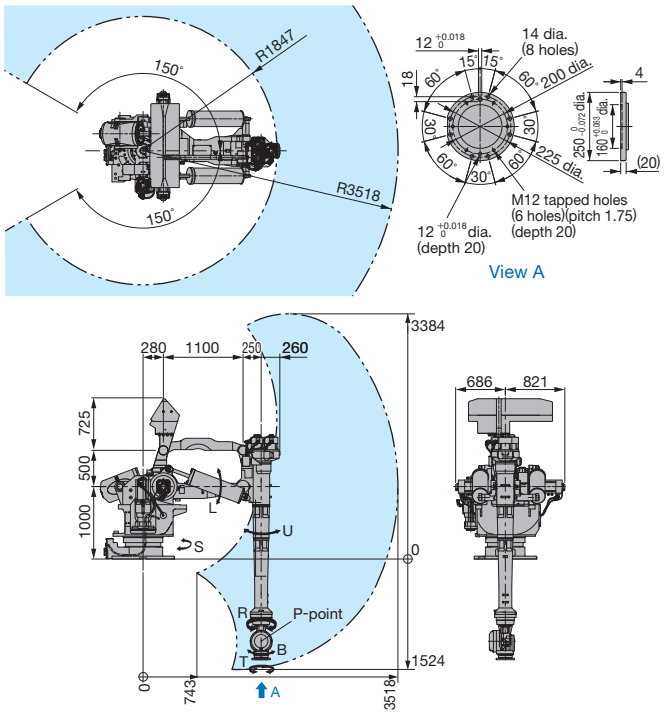
GP400R



■Dimensions Units: mm : P-point Maximum Envelope

Note: Refer to individual dimension diagrams for detailed dimensions and specifications of the following models.





Specifications		GP200R	GP400R
Type		YR-1-06VR200-A00	YR-1-06VR400-A00
Controlled Axis		6 (vertically articulated)	6 (vertically articulated)
Payload	Wrist	200 kg	400 kg
	U -arm	30 kg	10 kg
Repeatability*1		±0.2 mm	±0.5 mm
Range of Motion	S -axis (turning)	−180°−+180°	−150°−+150°
	L -axis (lower arm)	−130°−+ 80°	−122°−+ 20°
	U -axis (upper arm)*2	−78.4°−+ 78°	− 9°−+120°
	R -axis (wrist roll)	−360°−+360°	−360°−+360°
	B -axis (wrist pitch/yaw)	−125°−+125°	−120°−+120°
	T -axis (wrist twist)	−360°−+360°	−360°−+360°
Maximum Speed	S -axis (turning)	1.57 rad/s, 90°/s	1.40 rad/s, 80°/s
	L -axis (lower arm)	1.48 rad/s, 85°/s	1.40 rad/s, 80°/s
	U -axis (upper arm)	1.48 rad/s, 85°/s	1.40 rad/s, 80°/s
	R -axis (wrist roll)	2.09 rad/s, 120°/s	1.40 rad/s, 80°/s
	B -axis (wrist pitch/yaw)	2.09 rad/s, 120°/s	1.40 rad/s, 80°/s
	T -axis (wrist twist)	3.32 rad/s, 190°/s	2.79 rad/s, 160°/s
Allowable Moment	R -axis (wrist roll)	1344 N·m	1960 N·m
	B -axis (wrist pitch/yaw)	1344 N·m	1960 N·m
	T -axis (wrist twist)	715 N·m	833 N·m
Allowable Inertia (GD²/4)	R -axis (wrist roll)	143 kg·m²	150 kg·m²
	B -axis (wrist pitch/yaw)	143 kg·m²	150 kg·m²
	T -axis (wrist twist)	80 kg·m²	50 kg·m²
Approx. Mass		1830 kg	3560 kg
IEC Protection Class		Body: IP54, Wrist: IP67	Body: IP30, Wrist: IP67
Ambient Conditions	Temperature	0 ℃ to +45 ℃	
	Humidity	20% to 80%RH (non-condensing)	
	Vibration	4.9 m/s² (0.5 G) or less	
	Altitude	1000 m or less	
	Others	Free from corrosive gas or liquid, or explosive gas or liquid Free from exposure to water, oil, or dust Free from excessive electrical noise (plasma) Free from strong magnetic fields	
Power Requirements*3		5.0 kVA	7.0 kVA
Mounting		Shelf	

*1: Conforms to ISO 9283.
*2: The range of motion of the U-axis itself. Not with respect to the ground. (Except for parallel-link type models)
*3: Varies in accordance with applications and motion patterns.
Note: SI units are used for the specifications.

YRC1000 Robot Controller

Four Features

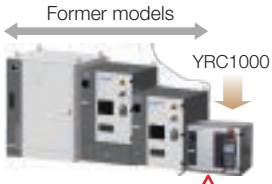
Programming Pendant

YRC1000 Robot Controller

GOOD DESIGN

POINT Smallest size in the world reduces installation space

This 125 L compact size controller does not require a transformer and has built-in external axis amplifiers for three axes.



Realized this size by building in three external axes and eliminating the need for a transformer.

POINT Global standardization (Universal size)

- Common size for use in Japan and overseas.
- Available with specifications for Europe (CE certified) and North America (UL certified).
- Overseas models do not require a transformer to adapt to the required power supply voltage.

POINT New motion control (high precision and high speed)

- Reduce time required for confirmation process with minimized track changes caused by differences in motion speeds.
- Reduce time for teaching since it is now possible to specify the distance where the corner operation should start.
- Successfully carry out corner operation under suppressed speed changes with simple settings.

POINT Lighter programming pendant with better operability

- Weighs only 730 g, the lightest programming pendant in its class, with improved cable installation.
- Can confirm robot positions and postures on the 3D robot model display.
- Touch screen allows intuitive operation to easily move the cursor and scroll.

■ YRC1000 Robot Controller Specifications

Items	Specifications
Configuration	Dust proof IP54 (area of backside duct fan: IP2X)
Dimensions	598 (W)×427 (D)×490 (H) mm. 125 L
Approx. Mass	85 kg max. (External axis amplifiers for up to three axes can be built in.)
Cooling System	Indirect cooling
Ambient Temperature	During operation: 0°C to +45°C, During storage: −10°C to +60°C
Relative Humidity	90% max. (non-condensing)
Altitude	2000 m (with temperature derating) Derating condition of over 1000 m: max. ambient temperature decreases 1% per 100 m.
Power Supply	Japan: three-phase 200 VAC to 240 VAC (+10% to −15%), 50/60 Hz (±2%) Asia and Europe: three-phase 380 VAC to 440 VAC (+10% to −15%), 50/60 Hz (±2%) (neutral grounding) North America: three-phase 380 VAC to 480 VAC (+10% to −15%), 50/60 Hz (±2%) (neutral grounding)
Grounding	Grounding resistance: 100 Ω or less for 200-V class, 10 Ω or less for 400-V class
Digital I/Os	Specialized signals: 19 inputs and 6 outputs General signals: 40 inputs and 40 outputs (32 transistor outputs, 8 relay outputs)
Positioning System	Serial communications (absolute encoder)
Programming Capacity	JOB: 200,000 steps, 10,000 instructions CIO ladder: 20,000 steps max.
Expansion Slots	PCI express: 2 slots
LAN (Connection to Host)	2 (10BASE-T/100BASE-TX)
Interface	RS-232C: 1ch
Control Method	Software servo control
Drive Units	SERVOPACK for AC servomotors

■ Programming Pendant Specifications

Items	Specifications
Dimensions	152 (W)×53 (D)×299 (H) mm
Approx. Mass	0.730 kg
Material	Reinforced plastics
Operation Device	Select keys, axis keys, numerical/application keys, mode selector switch with keys (mode: teach, play, and remote), emergency stop button, enable switch, compact flash card interface device (compact flash is optional.), USB port (USB 2.0, 1 port)
Display	5.7-inch TFT color LCD, touch panel VGA 640×480 pixels (alphanumeric characters, Chinese characters, Japanese letters, and others)
IEC Protection Class	IP54
Cable Length	Standard: 8 m, max.: 36 m (with optional extension cable)

MOTOMAN-GP Series

Medium- and Large-size Models (payload from 35 kg to 600 kg)

Sales Department

HEAD OFFICE
2-1 Kurosaki-Shiroishi, Yahatanishi-ku, Kitakyushu, Fukuoka 806-0004, Japan
Phone: +81-93-645-7703 Fax: +81-93-645-7802

YASKAWA America, Inc. (Motoman Robotics Division)
100 Automation Way, Miamisburg, OH 45342, U.S.A.
Phone: +1-937-847-6200 Fax: +1-937-847-6277

YASKAWA Europe GmbH (Robotics Division)
Yaskawastrasse 1, 85391, Allershausen, Germany
Phone: +49-8166-90-100 Fax: +49-8166-90-103

YASKAWA Nordic AB
Verkstadsgatan 2, Box 504 ,SE-385 25 Torsas, Sweden
Phone: +46-480-417-800 Fax: +46-486-414-10

YASKAWA Electric (China) Co., Ltd.
22F, One Corporate Avenue, No.222 Hubin Road, Huangpu District, Shanghai 200021, China
Phone: +86-21-5385-2200 Fax: +86-21-5385-3299

YASKAWA SHOUGANG ROBOT CO., LTD.
No.7 Yongchang North Road, Beijing E&T Development Area China 100176
Phone: +86-10-6788-2858 Fax: +86-10-6788-2878

YASKAWA India Private Ltd. (Robotics Division)
#426, Udyog Vihar Phase-Ⅳ, Gurgaon, Haryana, India
Phone: +91-124-475-8500 Fax: +91-124-475-8542

YASKAWA Electric Korea Corporation
35F, Three IFC, 10 Gukjegeumyung-ro, Yeongdeungpo-gu, Seoul, Korea 07326
Phone: +82-2-784-7844 Fax: +82-2-784-8495

YASKAWA Electric Taiwan Corporation
12F, No.207, Sec. 3, Beishin Rd., Shindian District, New Taipei City 23143, Taiwan
Phone: +886-2-8913-1333 Fax: +886-2-8913-1513

YASKAWA Electric (Singapore) PTE Ltd
151 Lorong Chuan, #04-02A New Tech Park, Singapore 556741
Phone: +65-6282-3003 Fax: +65-6289-3003

YASKAWA Electric (Thailand) Co., Ltd.
59, 1st-5th Floor, Flourish Building, Soi Ratchadapisek 18,
Ratchadapisek Road, Huaykwang, Bangkok 10310, Thailand
Phone: +66-2-017-0099 Fax: +66-2-017-0199

PT. YASKAWA Electric Indonesia
Secure Building-Gedung B Lantai Dasar & Lantai 1 Jl. Raya Protokol Halim Perdanakusuma,
Jakarta 13610, Indonesia
Phone: +62-21-2982-6470 Fax: +62-21-2982-6471

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YASKAWA ELECTRIC CORPORATION

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