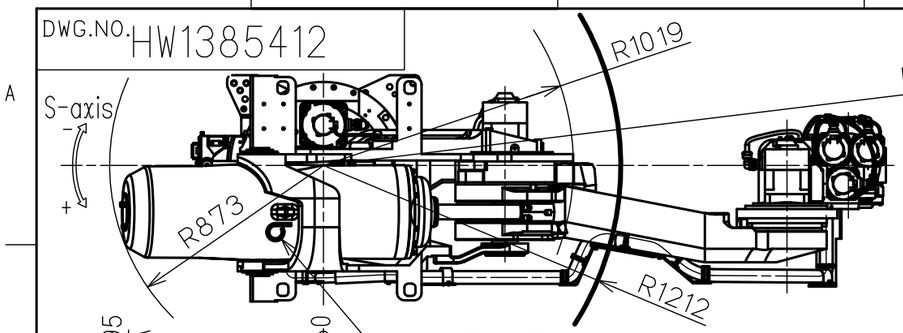
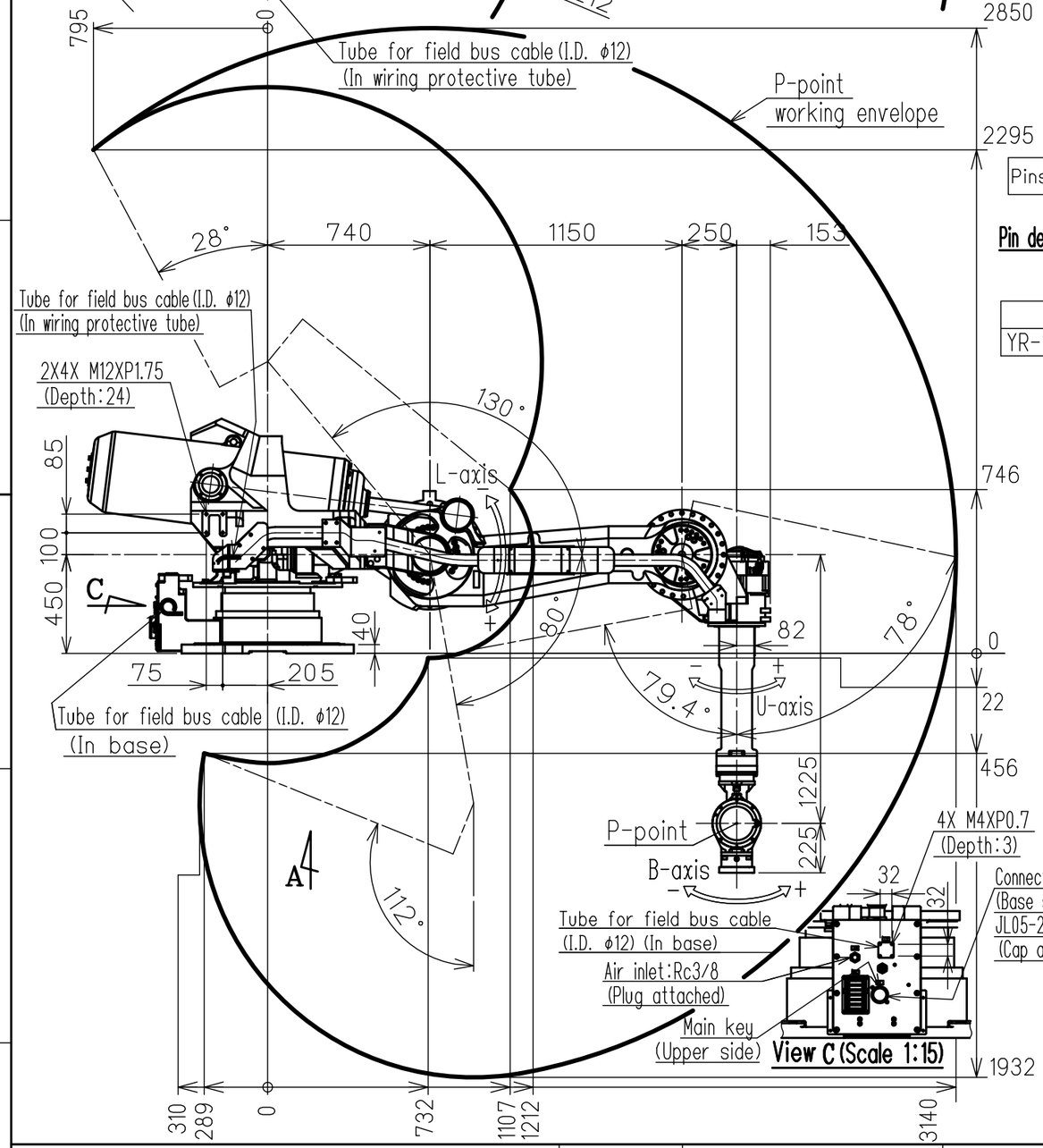
DWG.NO. HW1385412





Pins used — 0.2mm² X6pins (1, 2, 9, 10, 11, 12) — 15 — Shielded wire — ⏚

Pin details for external axis encoder cable

Pins used — 0.5mm² X6pins (1–6) — 0.3mm² X12pins (7–18) — ⏚

Pin details for user cable (Casing side)

Pins used — 0.5mm² X6pins (1–6) — 0.3mm² X12pins (7–18) — 0.75mm² X6pins (19–24) — ⏚

Pin details for user cable (Base side)

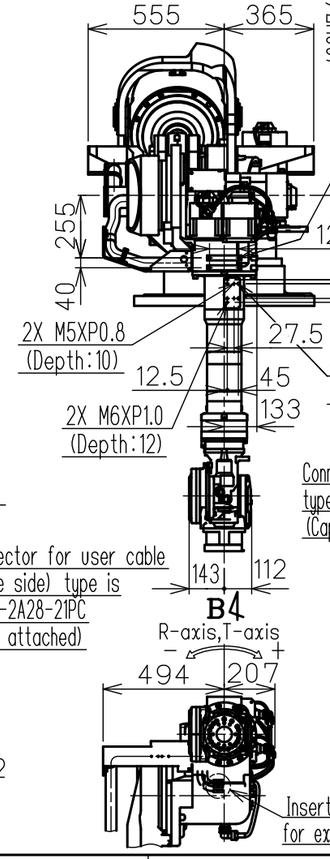
Pins used — 2.0mm² X4pins (1–4) — 0.75mm² X2pins (5, 6) — ⏚

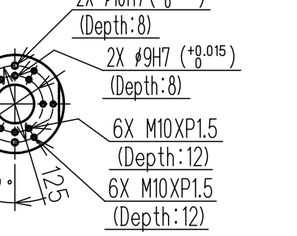
Pin details for external axis power cable

0.75mm² X3pins
- 19 — Insertion-type pin terminal (Socket)
- 20 — Insertion-type pin terminal (Pin)
- 21 — Insertion-type pin terminal (Pin)

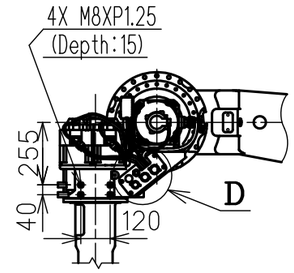
Insertion-type pin terminal details for user cable (In casing)

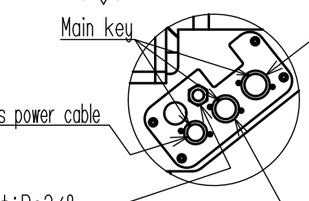
Type	Specification
YR-1-06VR165-A00	Standard

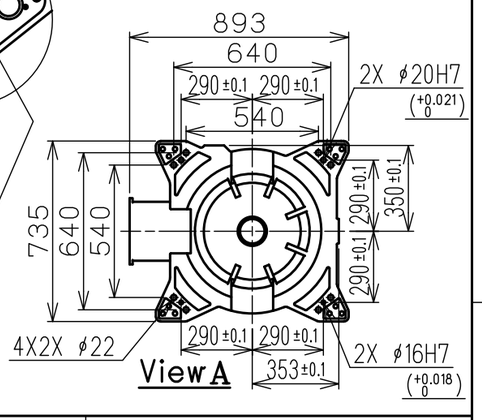




View B (Scale 1:10)







ViewA

Item \ Model		MOTOMAN-GP165R
Configuration		Vertically articulated
Degree of freedom		6
Payload	Wrist	165 kg
	On u-arm	30 kg
Repeatability (*1)		0.05 mm
Range of motion	S-axis (Turning)	−180° – +180°
	L-axis (Lower arm)	−130° – +80°
	U-axis (Upper arm)	−79.4° – +78°
	R-axis (Roll)	−360° – +360°
	B-axis (Pitch/Yaw)	−130° – +130°
	T-axis (Twist)	−360° – +360°
Maximum speed	S-axis	1.83 rad/s, 105°/s
	L-axis	1.83 rad/s, 105°/s
	U-axis	1.83 rad/s, 105°/s
	R-axis	3.05 rad/s, 175°/s
	B-axis	2.62 rad/s, 150°/s
	T-axis	4.19 rad/s, 240°/s
Allowable moment	R-axis	921 N·m (94 kgf·m)
	B-axis	921 N·m (94 kgf·m)
	T-axis	490 N·m (50 kgf·m)
Allowable inertia (GD²/4)	R-axis	85 kg·m²
	B-axis	85 kg·m²
	T-axis	45 kg·m²
Mass		1760kg
Protection rating		Body: IP54 Wrist: IP67
Mounting method		Shelf-mounted
Ambient conditions	Temperature	0℃ – +45℃
	Humidity	20%RH – 80%RH (No-condensing)
	Vibration acceleration	4.9m/s² (0.5G) or less
	Altitude	1000m or less
	Flatness for installation	0.5mm or less
	Others	•Free from dirt, dust, oil soot, or water •Free from explosive and corrosive gas or liquid •Free from excessive electrical noise (plasma) •Free from strong magnetic field
Power requirements		5.0KVA
Applicable controller		YRC1000

*1 Repeatabilitiy conforms to ISO 9283.
*2 The manipulator is in the home position in this drawing.

Units: mm

Note:
1.All rights reserved.
2.Please note that the data is subject to be deleted without advance notice.
3.No warranty is given in relation to the data including the specification.
4.We are not responsible for any damages or loss caused by the use of the data.

FOR STUDY PURPOSE ONLY

SCALE 1 :25

YASKAWA
株式会社 安川電機

Reference Drawing

TITLE MOTOMAN-GP165R
DIMENSION DIAGRAM

DRWN DATE Oct.03.'17
DWG.NO. HW1385412 ②

SIZE A3