

YASKAWA

MOTOMAN

Serie GP

Manipulación y Aplicación General



Controlled by
YRC1000

Controlled by
YRC1000
micro

MOTOMAN GP8



reddot award 2018
winner

Masters of Robotics, Motion and Control



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Motoman YRC1000

Controlador para robots industriales

El MOTOMAN YRC1000 es un controlador compacto, rápido y flexible para robots MOTOMAN que reúne un control de robots de alto rendimiento en un armario pequeño de 125 litros de volumen y 70 kg de peso máximo.

Además de la funcionalidad característica del controlador YASKAWA, el YRC1000 incluye otras mejoras funcionales. Dado que se han reducido los tiempos del ciclo de scan del ladder, la velocidad del controlador ha aumentado. La mejora en la precisión del trayecto garantiza mayor precisión en el rendimiento del recorrido independientemente de la velocidad del movimiento.

La interfaz de usuario es compatible con operaciones táctiles tipo smartphones y permite al usuario simular en 3D el movimiento de los robots en la pantalla de la consola de programación antes y durante la ejecución del brazo robótico real.

El personal de servicio puede conectarse directamente a la interfaz de usuario de la consola de programación con fines de prestación de servicios remotos. El peso total de la consola de programación se ha reducido a 730 gramos, lo cual supone mayor comodidad de uso para el operador. El nuevo controlador simplifica el mantenimiento, ya que facilita información de mantenimiento preventivo y proporciona potentes herramientas de software de análisis y notificaciones.

BENEFICIOS CLAVE

- Compacto, rápido y flexible
- Estandarización global (no requiere transformador)
- Alta precisión del trayecto
- Alta eficiencia

Diseño industrial óptimo

- Volumen: 125 litros



Consola de programación (PHG): económica, ligera y sencilla

Pantalla LCD a color de 5,7"

Pantalla táctil

Opcional: sistema operativo con estilo de ventanas (windowed style)

Llave de operación – arranque parada – parada de emergencia



Conexión USB y ranura para tarjetas SD (en el dorso)

Teclas de ejes principales

Teclas de ejes adicionales

Pulsador de hombre muerto con tres posiciones según la norma DIN EN ISO 10218-1

La pantalla puede configurarse individualmente para distintas aplicaciones:

- Soldadura por arco
- Soldadura por puntos
- Aplicaciones generales

- Programación fácil y rápida
- Varios niveles de usuario, desde el modo de operador hasta el de seguridad
- Función de ayuda



Specifications controller YRC1000	
Dimensions	598 (W) x 490 (H) x 427 (D) mm (125 l without protrusion parts)
Weight	70 kg max. (possible to control three external axes)
Protection class	IP54
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)
Power supply	Three-phase 380-440 VAC (+10 %, -15 %), 50/60 Hz (±2 %)
Digital I/Os	Specialized signals: 19 inputs and 6 outputs / General signals: 40 inputs and 40 outputs
Programming capacity	JOB: 200,000 steps, 10,000 instructions / CIO ladder: 20,000 steps
Expansion slots	2 x PCIe or 2 x PCI or 1 x PCI/1 x PCIe
LAN (Connection to host)	2 (10BASE-T/100BASE-TX)
Interface	RS-232C/RS422: 1 ch (used by switching)

Tamaño común para su uso en Japón,
Asia, Europa y Estados Unidos



Consola de programación mejorada



Specifications programming pendant	
Dimensions	152 (W) x 299 (H) x 53 (D) mm
Weight	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, SD card interface device, USB port (1 port)
Display	5.7-inch color LCD, touch panel 640 x 480 pixels
IEC protection class	IP54



MOTOMAN GP8



reddot award 2018
winner



MOTOMAN YRC1000micro

Controlador de robot industrial
para robots MOTOMAN pequeños

El MOTOMAN YRC1000micro es un controlador para robots MOTOMAN pequeños. Proporciona un control del robot de alto rendimiento en una cabina pequeña. Su rendimiento y funciones se optimizan en aplicaciones de Pick & Place y de ensamblaje.

Además de la funcionalidad típica de YASKAWA, el controlador MOTOMAN YRC1000micro incluye conexiones eficientes a dispositivos periféricos y un nuevo control de movimiento de alta velocidad y alta precisión.

Es compatible con la opción de "Seguridad Funcional", que monitorea el rango de movimiento y las limitaciones de velocidad.



BENEFICIOS CLAVE

- Compacto y ligero
- Alto rendimiento
- Nuevo control de movimiento
- Mínimo espacio de instalación
- Conexiones fáciles a dispositivos periféricos
- Compatible con la Unidad de Seguridad Funcional

Controlador de robot industrial YRC1000micro para robots MOTOMAN pequeños

Specifications Controller YRC1000micro	
Configuration	Open structure
Dimensions	425 (W) x 125 (H) x 280 (D) mm – excluding protrusions
Weight	10.5 kg (without top mount box)
Protection class	IP20
Cooling system	Direct cooling
Ambient temperature	During operation: 0°C to +40°C During storage: -10°C to +60°C
Relative humidity	90 % max. (non-condensing)
Power supply	Single-phase 200/230 VAC (+10 to -15%), 50/60 Hz (± 2 %) ¹ ; three-phase 220/220 VAC (+10 to -15 %), 50/60 Hz (± 2%)
Digital I/Os	External IO (hardware, standard max): 8 inputs / 8 outputs (transistor 100 mA; number of points cannot be expanded) ² Standard signal allocation: General Purpose IO: 1 input / 1 output Specific IO: 7 inputs / 7 outputs
Programming capacity	JOB: 200,000 steps, 10,000 instructions; CIO ladder: 1,500 steps
Expansion slots	PCI express, 2 slots
LAN (Connections to host)	1 (10BASE-T/100BASE-TX)
Safety category	3, PLd

¹ Manipulators operated by single-phase power supply: MOTOMAN GP7, GP8, MotoMINI.

² If it is necessary to expand the number of points, a filled bus board is required

Specifications programming pendant	
Dimensions	152 (W) x 299 (H) x 53 (D) mm
Weight	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, SD card interface device, USB port (1 port)
Display	5.7-inch color LCD, touch panel 640 x 480 pixels
IEC Protection class	IP54

Consola de Programación: ergonómica, ligera y sencilla

Pantalla LCD a color de 5,7"
Pantalla táctil
Opcional: sistema operativo con estilo de ventanas (windowed style)

Llave de operación – arranque parada – parada de emergencia

Conexión USB y ranura para tarjetas SD (en el dorso)

Cursor

Teclas de ejes principales

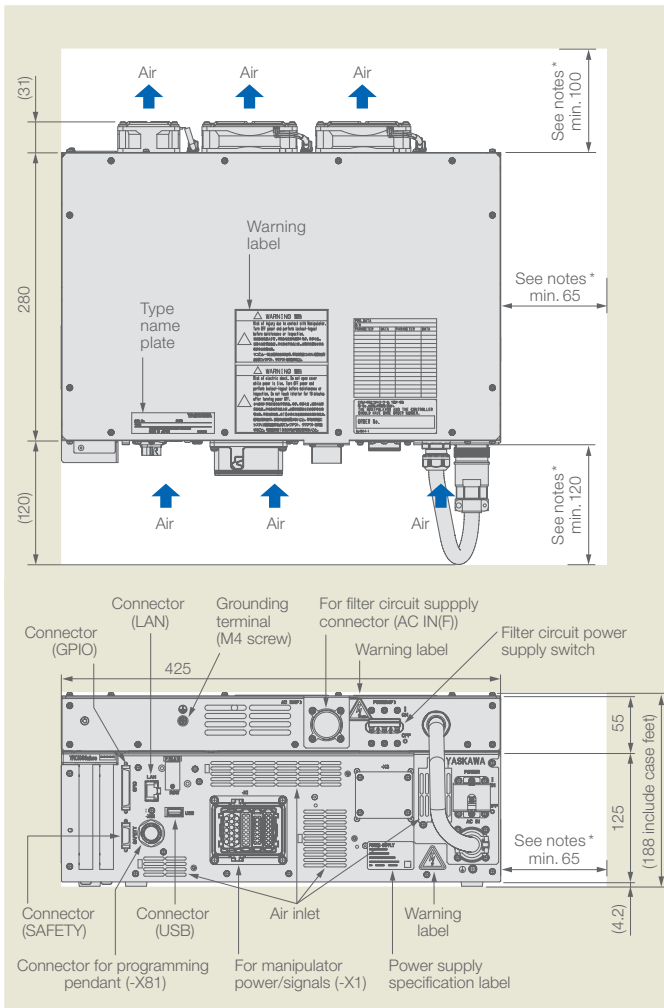
Teclas de ejes adicionales

Pulsador de hombro muerto con tres posiciones según la norma DIN EN ISO 10218-1

La pantalla puede configurarse individualmente para distintas aplicaciones:
- Soldadura por arco
- Soldadura por puntos
- Aplicaciones generales

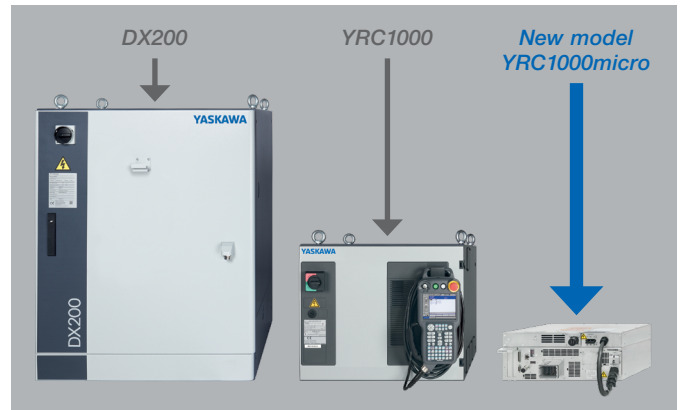
- Programación fácil y rápida
- Varios niveles de usuario, desde el modo de operador hasta el de seguridad
- Función de ayuda

Horizontally mounted ***



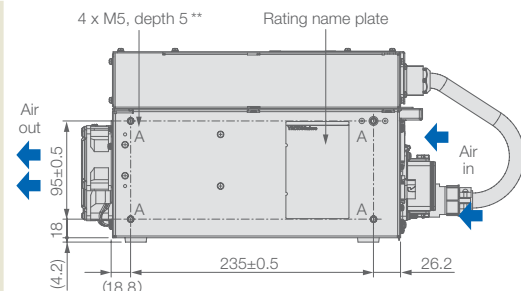
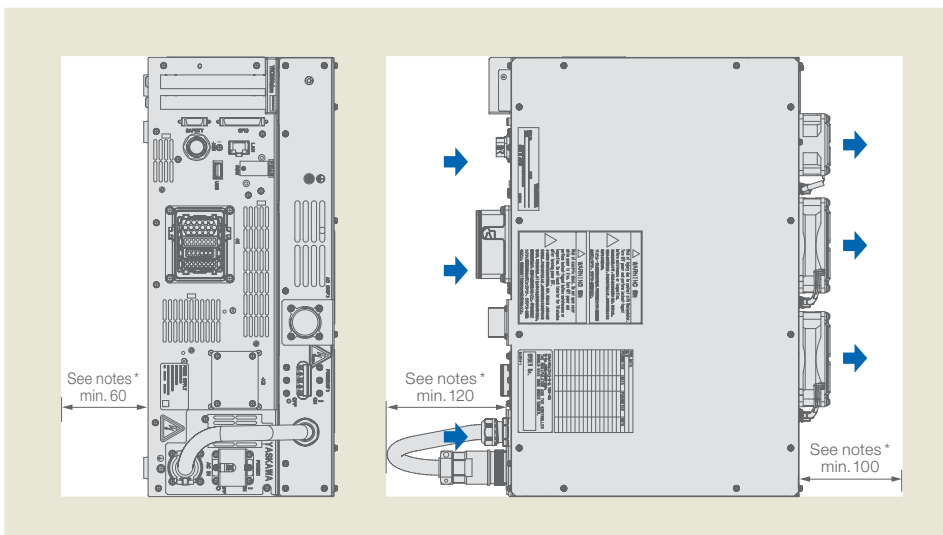
Óptimo diseño industrial

- Volume: 21,5 l (GP7/8/12, MotoMini), 30 l (HC10DT)



Manipulator type		Region: Europa and Korea (EMC directive required)
Standard size: 425 (W) x 125 (H) x 280 (D) mm	GP7 GP8 GP12 MotoMINI	<p>Top mount box for CE noise filter: 55 (H) x 280 (D) mm</p> <p>Total litres: 21.5 l</p>
without additional boxes		
without EMV	HC10	<p>Top mount box for CE noise filter PFL-Card: 125 (H) x 280 (D) mm</p> <p>Total litres: 30 l</p>

Vertically mounted ***



* Secure the dimensions stated in the placement space chart for cooling and maintenance.

** Use eight holes marked with the symbol "A" to fix the controller on the floor with fixing jigs and anchor bolts. When fixing the rack, use A hole (8 places).

*** Values refer to version for GP7, GP8, GP12 und MotoMini).

MotoMINI

PEQUEÑO – LIGERO – RÁPIDO



El robot MotoMINI de 6 ejes ha sido diseñado especialmente para la manipulación y el montaje de pequeñas piezas de trabajo. Reduce el tamaño de su línea de producción y ayuda a aumentar la productividad.

Este robot ligero de alta velocidad proporciona una carga útil de 500g y un alcance máximo de 350mm. El alto grado de repetibilidad de 0,02mm ofrece un rendimiento superior en la manipulación y el montaje de piezas pequeñas. Además, es fácil cambiar la ubicación del MotoMINI de acuerdo con las condiciones de funcionamiento de la línea o la pieza de trabajo que se está fabricando.

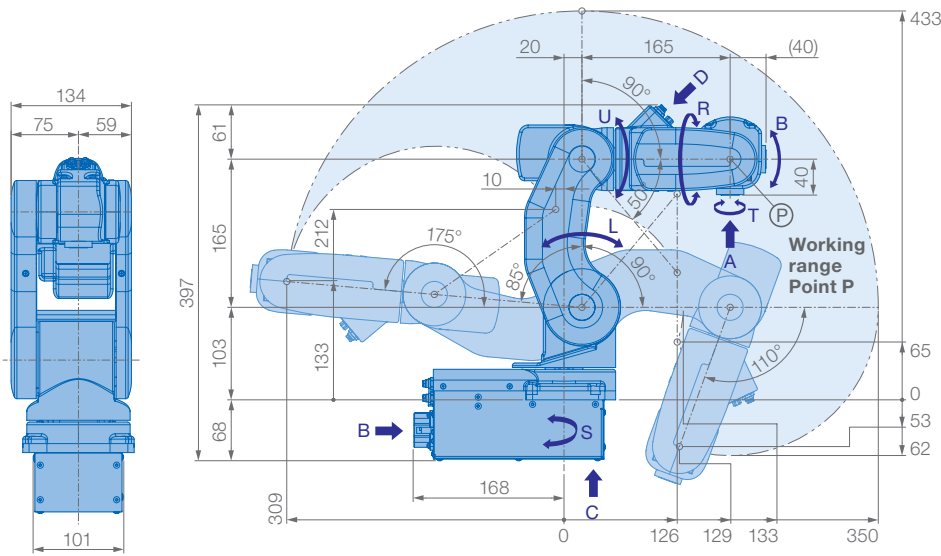
El MotoMINI se opera con el controlador Motoman YRC-1000micro que también es pequeño y compacto y, por lo tanto, especialmente adecuado para operar robots pequeños.

El controlador MOTOMAN YRC1000micro incluye conexiones eficientes a dispositivos periféricos y un nuevo control de movimiento de alta velocidad y alta precisión. Es compatible con la opción de "Seguridad Funcional", que monitorea el rango de movimiento y las limitaciones de velocidad.

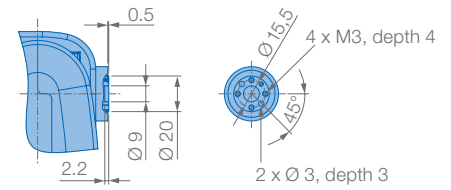
BENEFICIOS CLAVE

- Pequeño y rápido
- Ligero y portátil
- Rendimiento superior en manipulación y montaje de piezas pequeñas
- Mínimo espacio
- Posicionamiento flexible

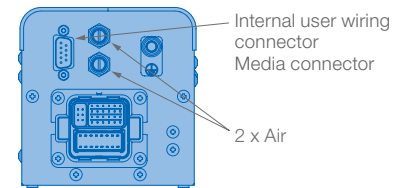
Controlled by
YRC1000
micro



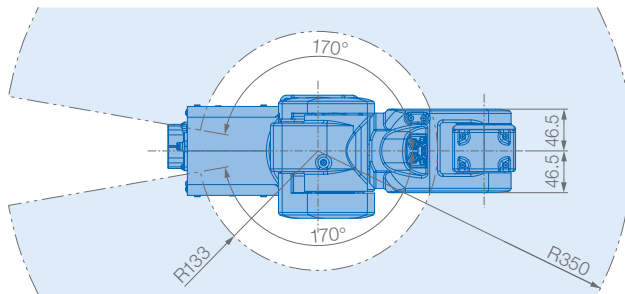
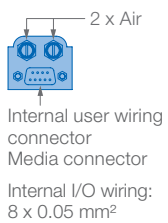
View A



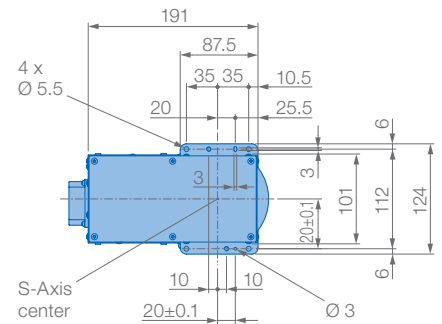
View B



View D



View C

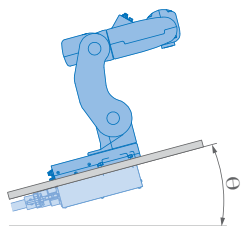


Mounting options: Floor, ceiling, wall, tilt*

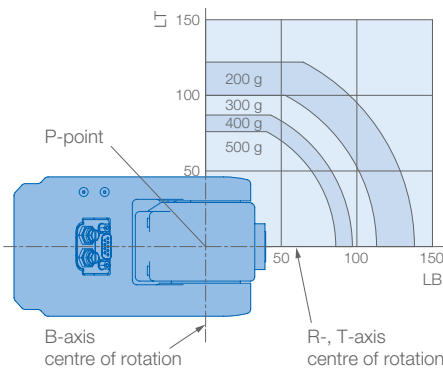
* tilt with condition of angle – see table below

Prevent interaction of the robot with:

- Corrosive gasses, liquids or explosive gasses
- Exposure to water, oil or dust
- Excessive electrical noise (plasma)



Allowable wrist load



Robot installation angle θ [deg.]	S-axis operating range [deg.]
$0 \leq \theta \leq 30$	± 170 degrees or less (no limit)
$30 < \theta \leq 40$	± 50 degrees or less
$40 < \theta \leq 50$	± 40 degrees or less
$50 < \theta$	± 30 degrees or less

Specifications MotoMINI						
Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m ²]	Controlled axes	6
S	± 170	315	–	–	Max. payload [kg]	0.5
L	+90/-85	315	–	–	Repeatability [mm]	± 0.02
U	+90/-50	420	–	–	Max. working range R [mm]	350
R	± 140	600	0.43	0.00378	Temperature [°C]	0 to +40
B	+210/-30	600	0.43	0.00378	Humidity [%]	20 – 80
T	± 360	600	0.38	0.00299	Weight [kg]	7
					Power supply, average [KVA]	0.5

MOTOMAN Serie GP

Controlled by
YRC1000

Controlled by
YRC1000
micro



GP4



GP7



GP8



GP12



GP25-12



GP25



GP35L



GP50



GP88



GP110



GP180-120



GP180



GP215



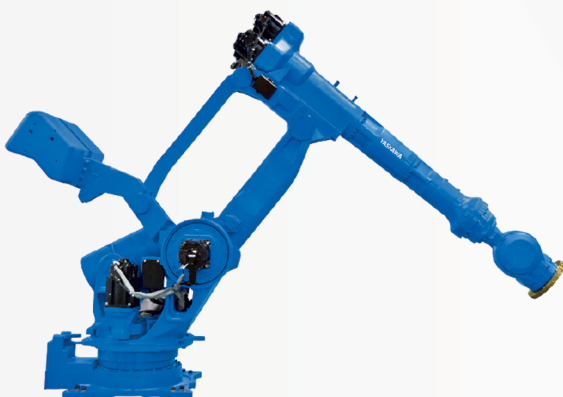
GP225



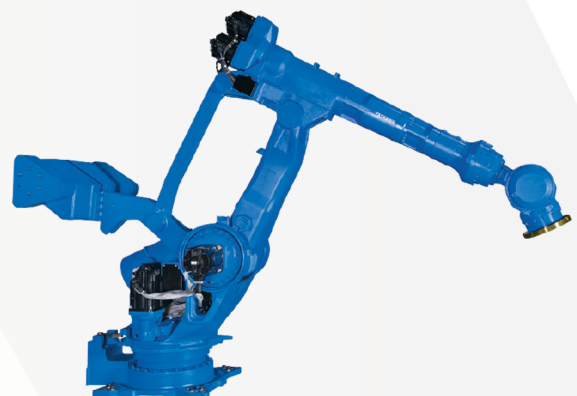
GP250



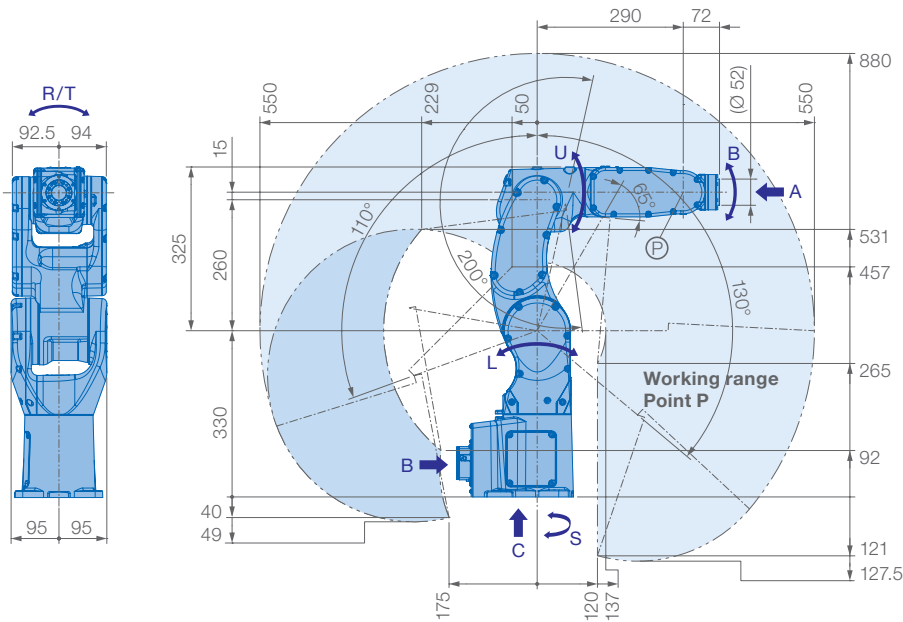
GP280



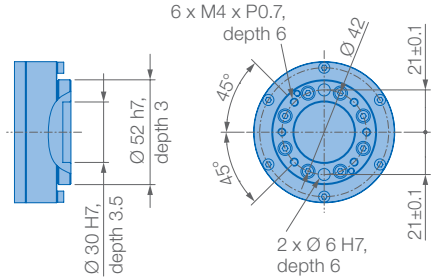
GP400



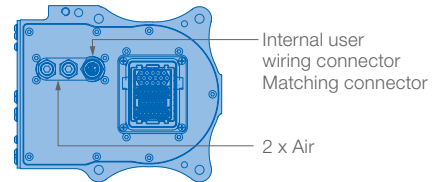
GP600



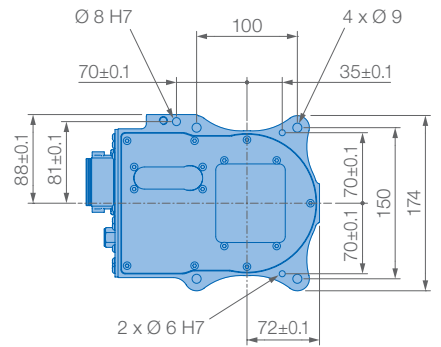
View A



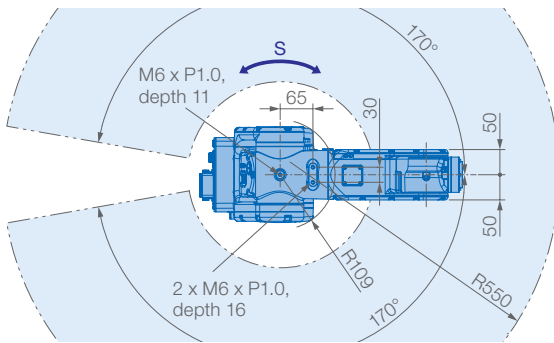
View B



View C

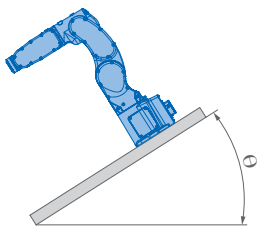


Mounting options: Floor, ceiling, wall, tilt
 Protection class: IP67
 Tilt angle without limitations
 No operating limit in S-axis

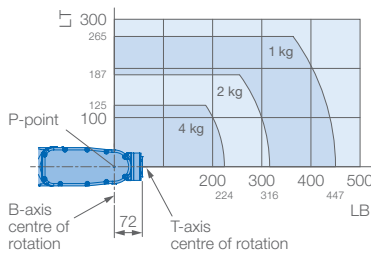


Prevent interaction of the robot with:

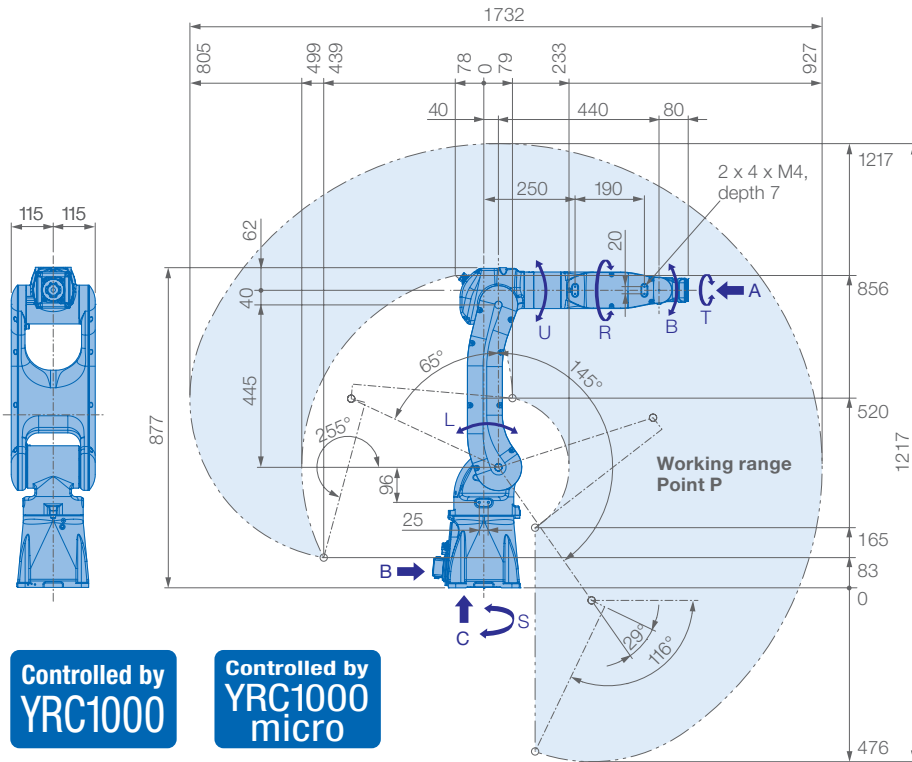
- Corrosive gases, liquids or explosive gases
- Exposure to water, oil or dust
- Excessive electrical noise (plasma)



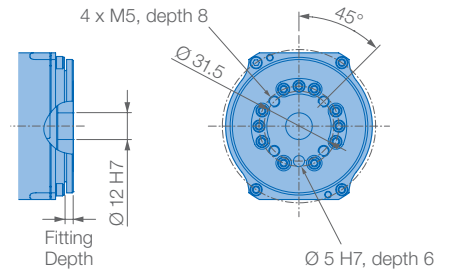
Allowable wrist load



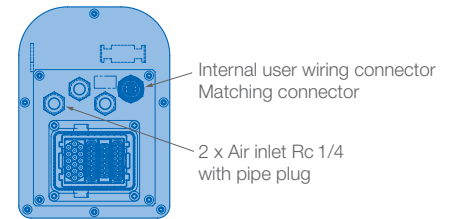
Specifications GP4					
Axes	Maximum motion range [°]	Maximum speed [°/s]	Allowable moment [Nm]	Allowable moment of inertia [kg · m ²]	Controlled axes
S	±170	465	-	-	6
L	+130/-110	465	-	-	Max. payload [kg]
U	+200/-65	525	-	-	Repeatability [mm]
R	±200	565	8.86	0.2	Max. working range R [mm]
B	±123	565	8.86	0.2	Temperature [°C]
T	±455	1000	4.9	0.07	Humidity [%]
					Weight [kg]
					Power supply, average [kVA]



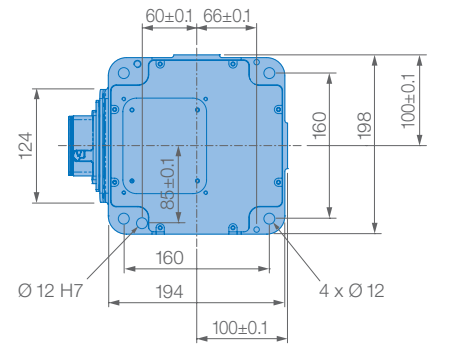
View A



View B



View C



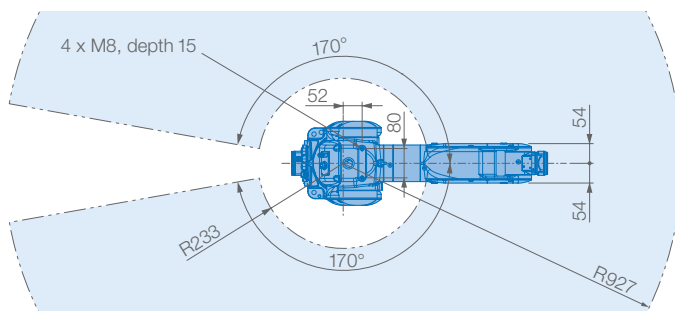
Mounting options: Floor, ceiling, wall, tilt*
Protection class: IP67

* tilt with condition of angle – see table below

Robot installation angle Ø [deg.]	S-axis operating range [deg.]
0 ≤ Ø ≤ 30	±170 degrees or less (no limit)
30 < Ø ≤ 35	±60 degrees or less
35 < Ø ≤ 45	±45 degrees or less
45 < Ø	±30 degrees or less

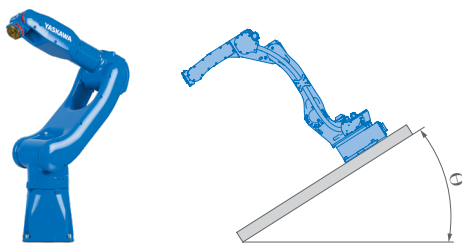
Controlled by YRC1000

Controlled by YRC1000 micro

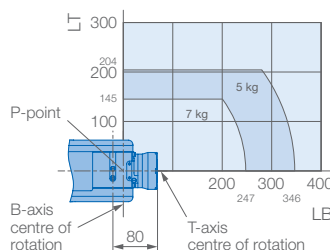


Prevent interaction of the robot with:

- Corrosive gases, liquids or explosive gases
- Exposure to water, oil or dust
- Excessive electrical noise (plasma)



Allowable wrist load

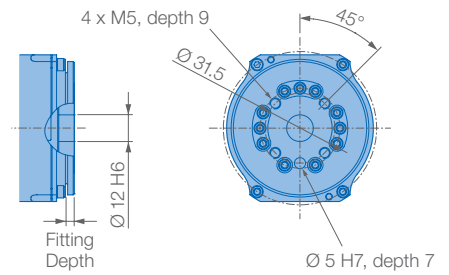


Specifications GP7						
Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m²]	Controlled axes	6
S	±170	375	–	–	Max. payload [kg]	7
L	+145/–65	315	–	–	Repeatability [mm]	±0.03*
U	+190/–70	410	–	–	Max. working range R [mm]	927
R	±190	550	17	0.5	Temperature [°C]	0 to +45
B	±135	550	17	0.5	Humidity [%]	20 – 80
T	±360	1000	10	0.2	Weight [kg]	34
					Power supply, average [KVA]	1**

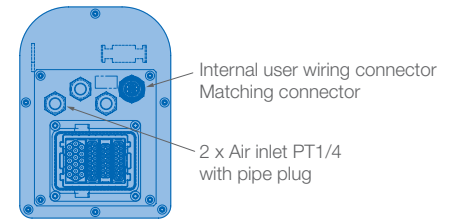
* Conforms to ISO 9283 ** Varies in accordance with applications and motion patterns **Note:** SI units are used for specifications.

All dimensions in mm

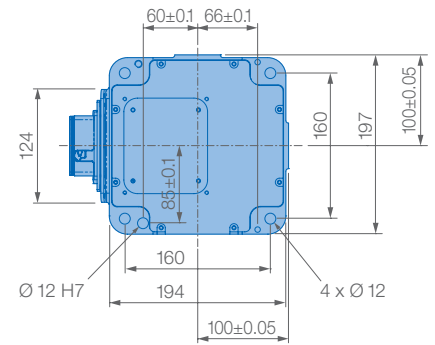
View A



View B



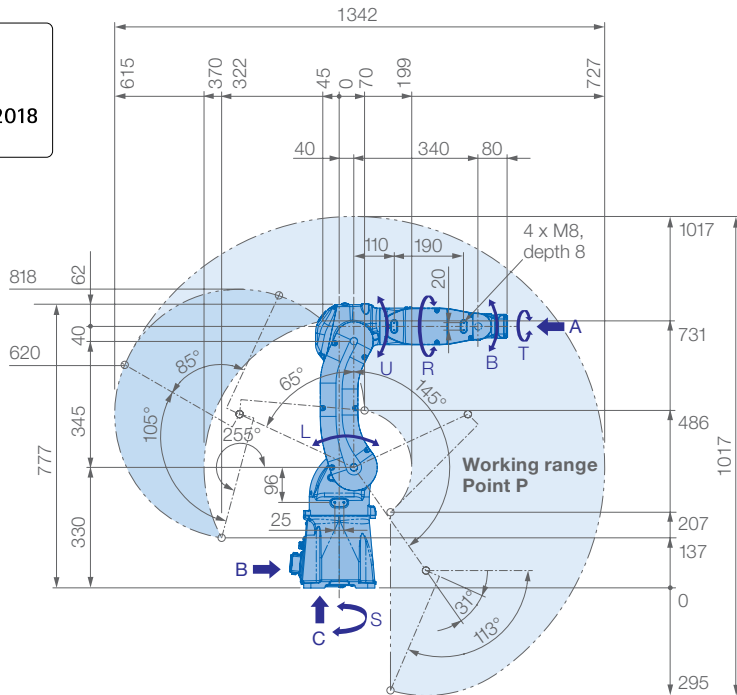
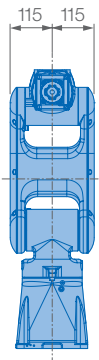
View C



Mounting options: Floor, ceiling, wall, tilt*
Protection class: IP67

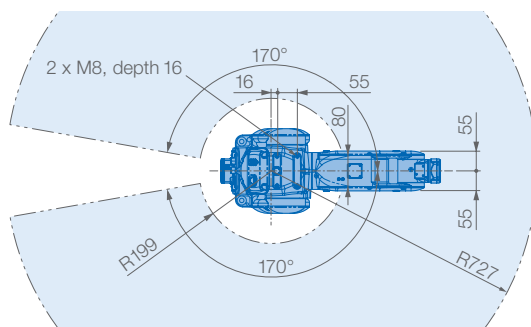
* tilt with condition of angle – see table below

Robot installation angle Ø [deg.]	S-axis operating range [deg.]
0 ≤ Ø ≤ 30	±170 degrees or less (no limit)
30 < Ø ≤ 35	±60 degrees or less
35 < Ø ≤ 45	±45 degrees or less
45 < Ø	±30 degrees or less



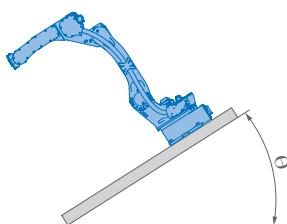
Controlled by YRC1000

Controlled by YRC1000 micro

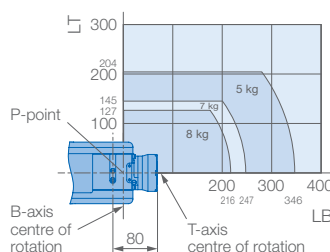


Prevent interaction of the robot with:

- Corrosive gases, liquids or explosive gases
- Exposure to water, oil or dust
- Excessive electrical noise (plasma)



Allowable wrist load

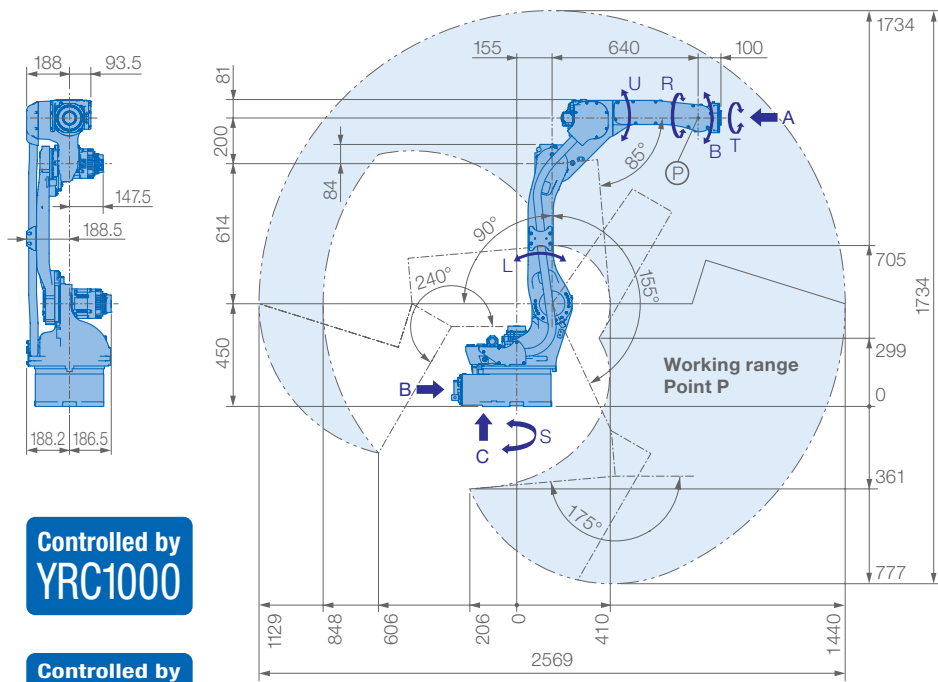


Specifications GP8

Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m ²]	Controlled axes	6
S	±170	455	–	–	Max. payload [kg]	8
L	+145/–65	385	–	–	Repeatability [mm]	±0.02*
U	+190/–70	520	–	–	Max. working range R [mm]	727
R	±190	550	17	0.5	Temperature [°C]	0 to +45
B	±135	550	17	0.5	Humidity [%]	20 – 80
T	±360	1000	10	0.2	Weight [kg]	32
					Power supply, average [KVA]	1**

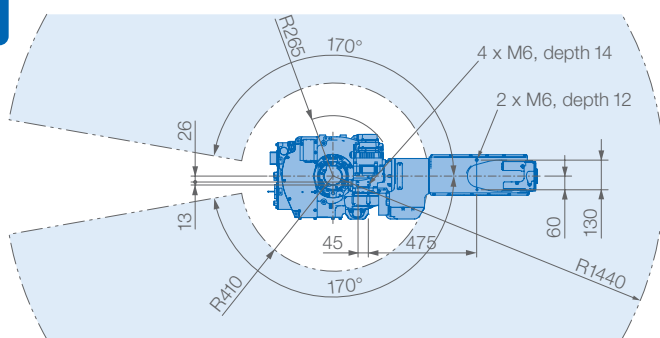
* Conforms to ISO 9283 ** Varies in accordance with applications and motion patterns **Note:** SI units are used for specifications.

All dimensions in mm



Controlled by YRC1000

Controlled by YRC1000 micro

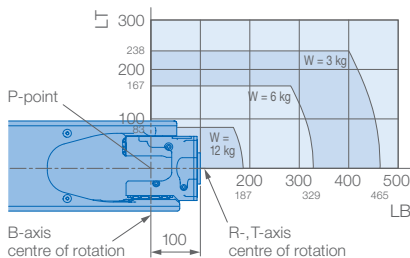


Prevent interaction of the robot with:

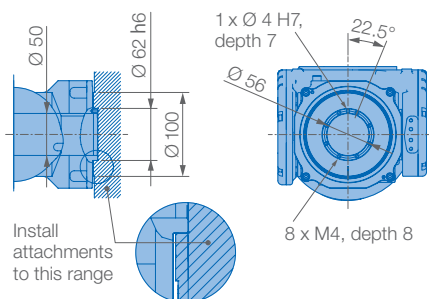
- Corrosive gases, liquids or explosive gases
- Exposure to water, oil or dust
- Excessive electrical noise (plasma)



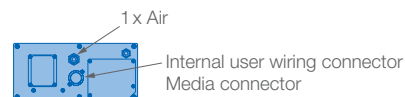
Allowable wrist load



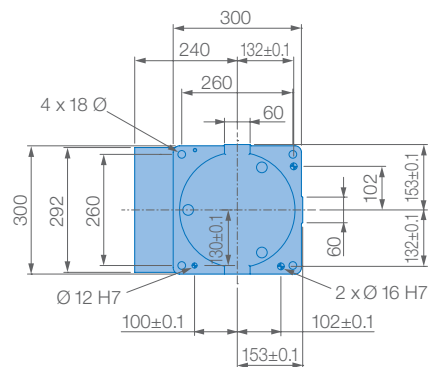
View A



View B



View C



Mounting options: Floor, ceiling, wall, tilt*

Protection class Version YR-1-25VXH12-A00
Standard: Main axes (S, L, U) IP54, wrist IP67

Protection Class Version YR-1-25VXH12-C00:
Main axes (S, L, U) IP65, wrist IP67

* tilt with condition of angle – see table below

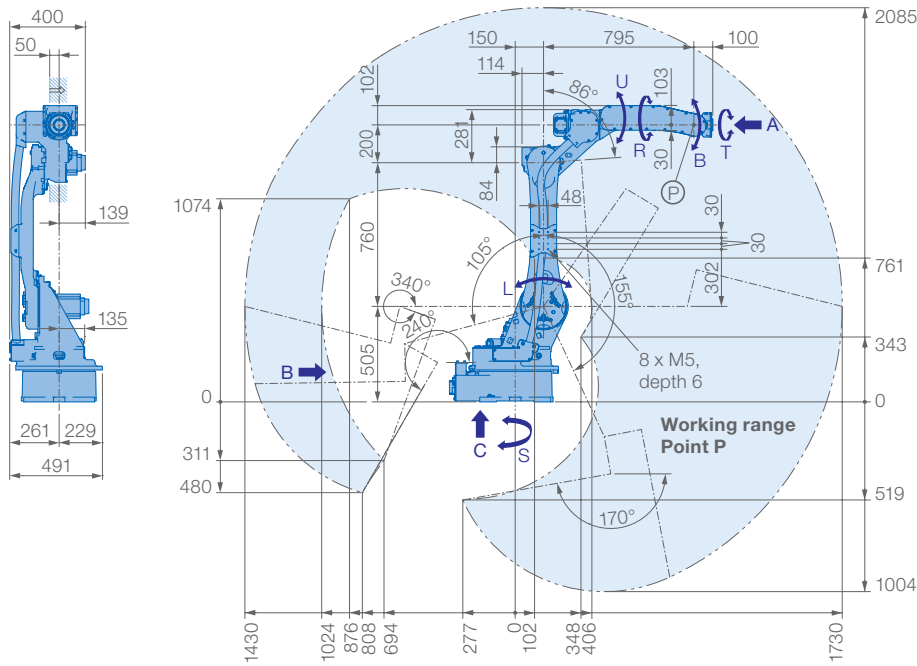
Robot installation angle Ø [deg.]	S-axis operating range [deg.]
0 ≤ Ø ≤ 30	±170 degrees or less (no limit)
30 < Ø ≤ 35	±60 degrees or less
35 < Ø ≤ 45	±45 degrees or less
45 < Ø	±30 degrees or less

Specifications GP12

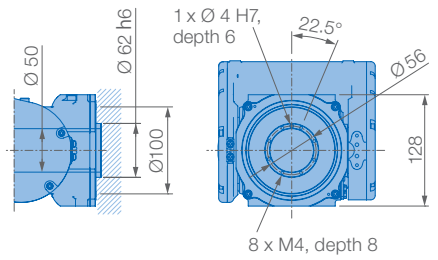
Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m ²]	Controlled axes	6
S	±170	260	–	–	Max. payload [kg]	12
L	+155/–90	230	–	–	Repeatability [mm]	±0.08*
U	+155/–85	260	–	–	Max. working range R [mm]	1440
R	±200	470	22	0.65	Temperature [°C]	0 to +45
B	±150	470	22	0.65	Humidity [%]	20 – 80
T	±455	700	9.8	0.17	Weight [kg]	150
					Power supply, average [KVA]	1.5**

* Conforms to ISO 9283 ** Varies in accordance with applications and motion patterns **Note:** SI units are used for specifications.

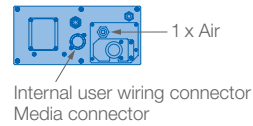
All dimensions in mm



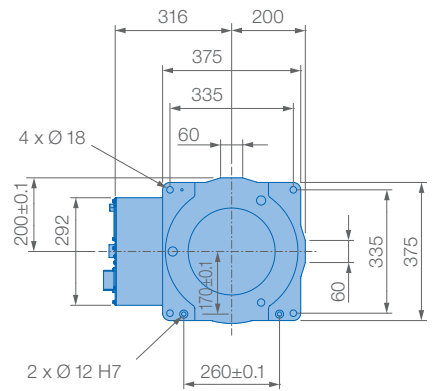
View A



View B



View C



Mounting options: Floor, ceiling, wall, tilt*
 Protection class version YR-1-25VXH25-A00 standard: Main axes (S, L, U) IP54, wrist IP 67
 Protection class version YR-1-25VXH25-C00: Main axes (S, L, U) IP65, wrist IP67

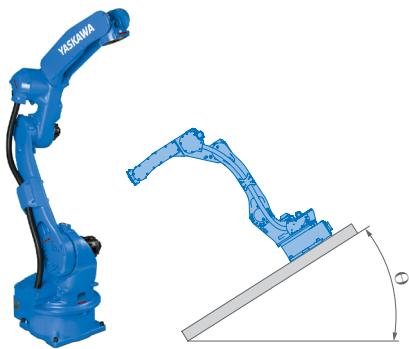
* tilt with condition of angle – see table below

Robot installation angle Ø [deg.]	S-axis operating range [deg.]
0 ≤ Ø ≤ 30	±180 degrees or less (no limit)
30 < Ø ≤ 35	±60 degrees or less
35 < Ø	±30 degrees or less

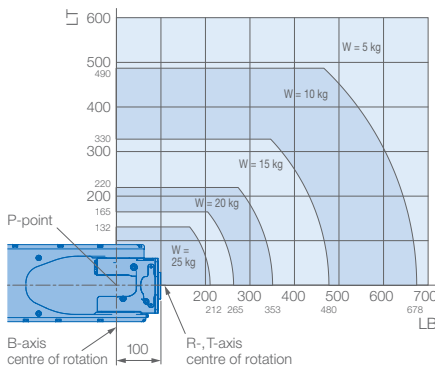
Controlled by YRC1000

Prevent interaction of the robot with:

- Corrosive gases, liquids or explosive gases
- Exposure to water, oil or dust
- Excessive electrical noise (plasma)



Allowable wrist load

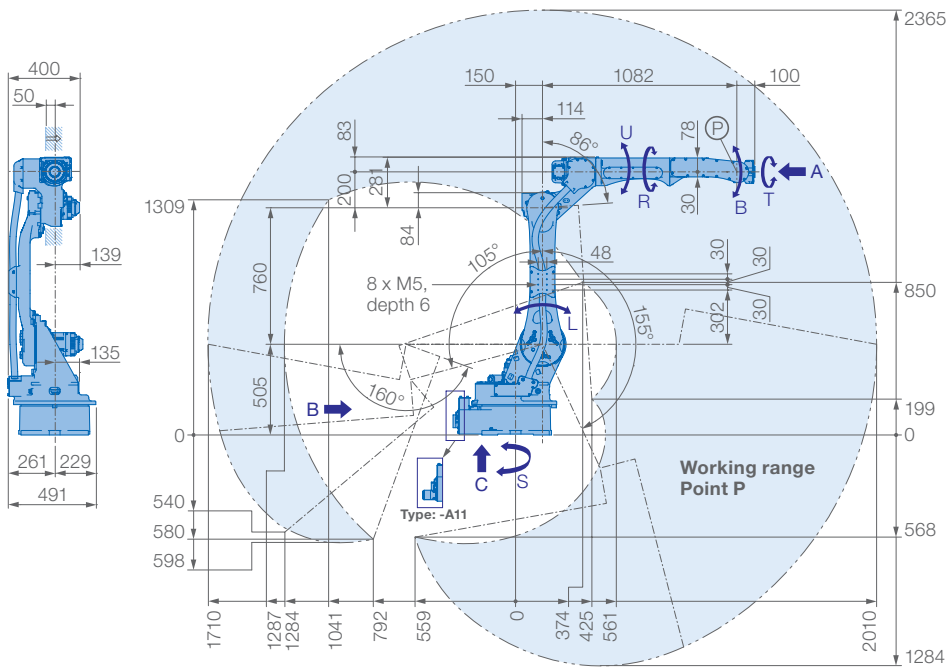


Specifications GP25

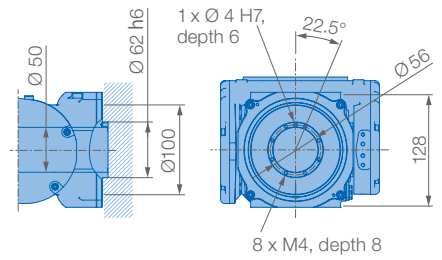
Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m²]	Controlled axes	6
S	±180	210	–	–	Max. payload [kg]	25
L	+155/–105	210	–	–	Repeatability [mm]	±0.06*
U	+160/–86	265	–	–	Max. working range R [mm]	1730
R	±200	420	52	2.3	Temperature [°C]	0 to +45
B	±150	420	52	2.3	Humidity [%]	20 – 80
T	±455	885	32	1.2	Weight [kg]	250
					Power supply, average [KVA]	2,0**

* Conforms to ISO 9283 ** Varies in accordance with applications and motion patterns **Note:** SI units are used for specifications.

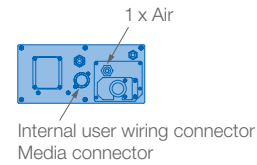
All dimensions in mm



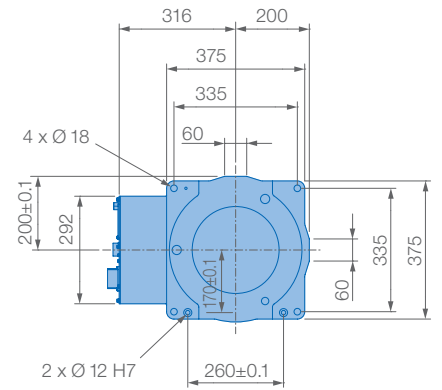
View A



View B



View C



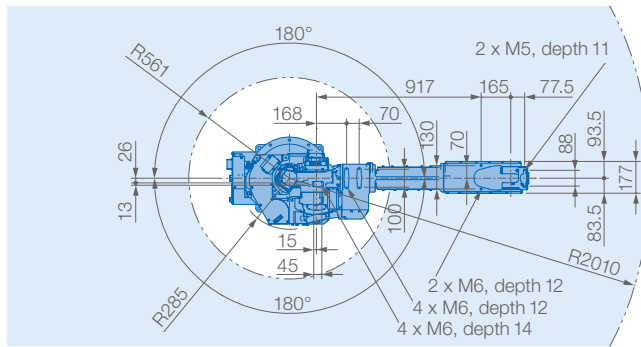
Mounting options: Floor, ceiling, wall, tilt*

Protection class: Main axes (S, L, U) IP54 (option 65), wrist IP67

* tilt with condition of angle – see table below

Robot installation angle Ø [deg.]	S-axis operating range [deg.]
0 ≤ Ø ≤ 30	±180 degrees or less (no limit)
30 < Ø ≤ 35	±60 degrees or less
35 < Ø	±30 degrees or less

Controlled by YRC1000

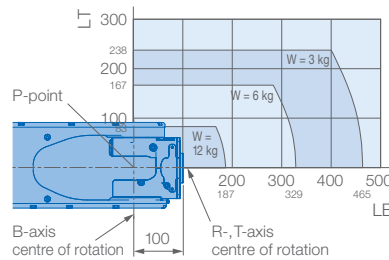


Prevent interaction of the robot with:

- Corrosive gases, liquids or explosive gases
- Exposure to water, oil or dust
- Excessive electrical noise (plasma)



Allowable wrist load

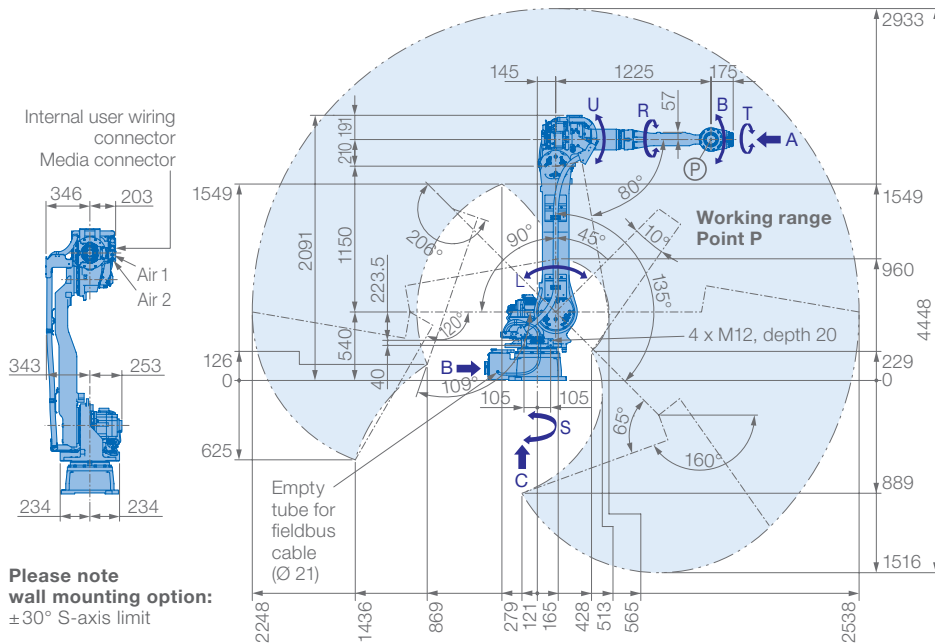


Specifications GP25-12

Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m²]	Controlled axes	6
S	±180	210	-	-	Max. payload (on U-axis) [kg]	12 (9)
L	+155/-105	210	-	-	Repeatability [mm]	±0.08*
U	+160/-86	220	-	-	Max. working range R [mm]	2010
R	±200	435	22	0.65	Temperature [°C]	0 to +45
B	±150	435	22	0.65	Humidity [%]	20 – 80
T	±455	700	9.8	0.17	Weight [kg]	260
					Power supply, average [KVA]	2.0**

* Conforms to ISO 9283 ** Varies in accordance with applications and motion patterns Note: SI units are used for specifications.

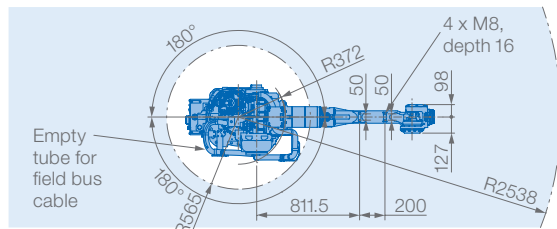
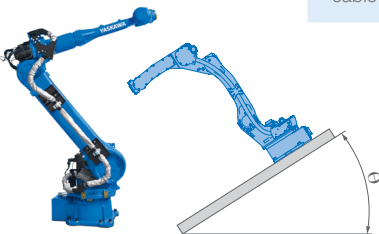
All dimensions in mm



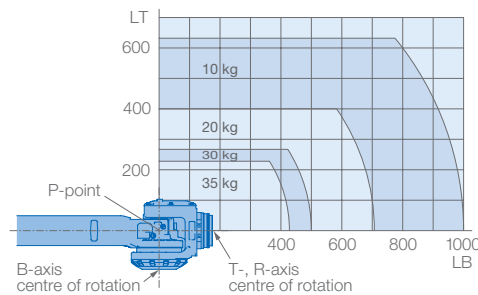
Please note wall mounting option:
±30° S-axis limit

Please note ceiling mounting option:
Please notice working range of B-axis

Please note tilted robot:
0°–90° limitation of S-axis, details on request

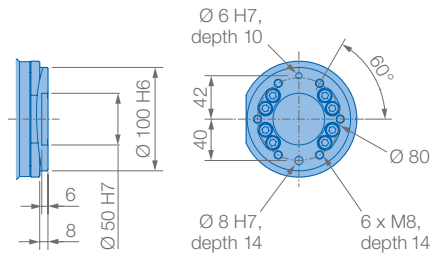


Allowable wrist load

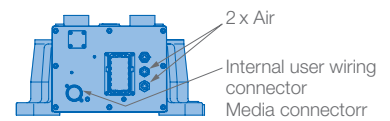


Robot installation angle θ [deg.]	S-axis operating range [deg.]
$0 \leq \theta \leq 30$	±180 (Standard)
$30 < \theta \leq 35$	±60
$35 < \theta \leq 45$	±45
$45 < \theta$	±45

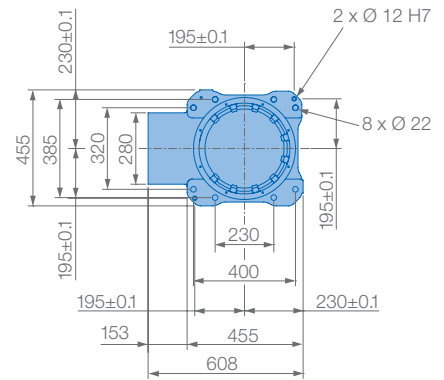
View A



View B



View C



Mounting options: Floor, ceiling, wall, tilt*

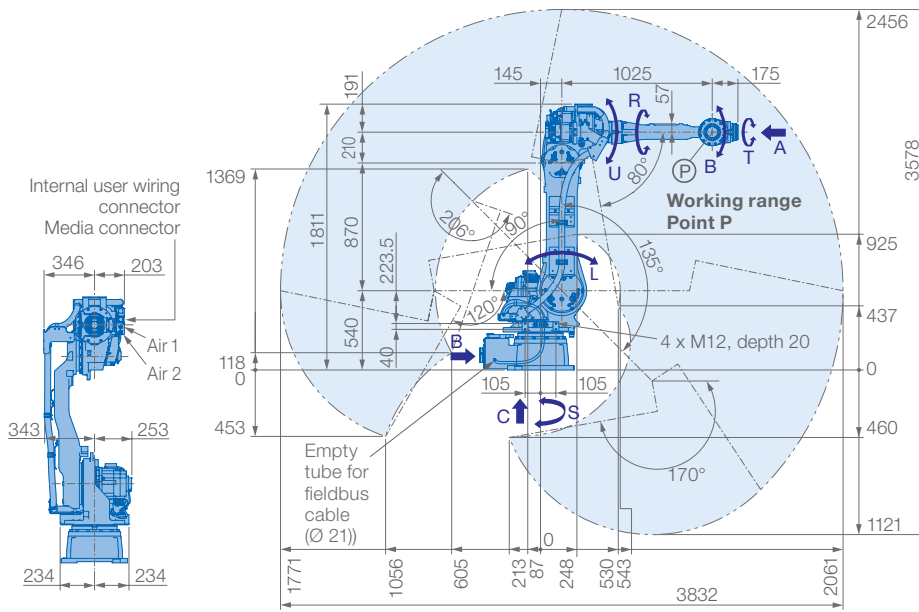
Protection class: IP54/67

* tilt with condition of angle – see table left side

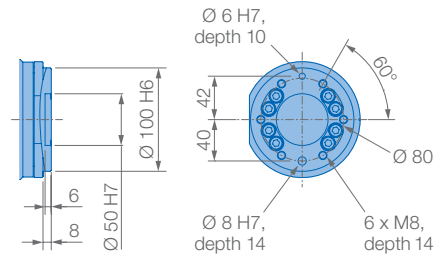
Wrist + U-arm in front	Up to 35 kg for attaching load mass including wrist load
U-arm behind	Up to 10 kg, 49 N · m (5 kgf · m) max. for increased moment amount of upper arm (floor-, ceiling-mounted type only)
S-axis below	Up to 30 kg (floor-, ceiling-mounted type only)

Specifications GP35L

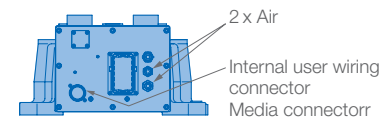
Axes	Maximum motion range [°]	Maximum speed [%/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m ²]	Controlled axes	6
S	±180	180	–	–	Max. payload [kg]	35
L	+135/–90	140	–	–	Repeatability [mm]	±0.07
U	+206/–80	178	–	–	Max. working range R [mm]	2538
R	±360	250	147	10	Temperature [°C]	0 to +45
B	±125	250	147	10	Humidity [%]	20 – 80
T	±360	360	78	4	Weight [kg]	600
					Power supply, average [KVA]	4.0



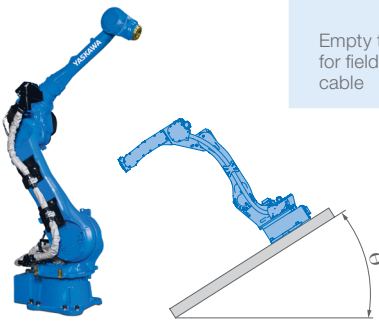
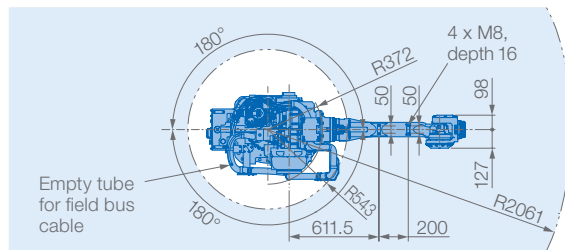
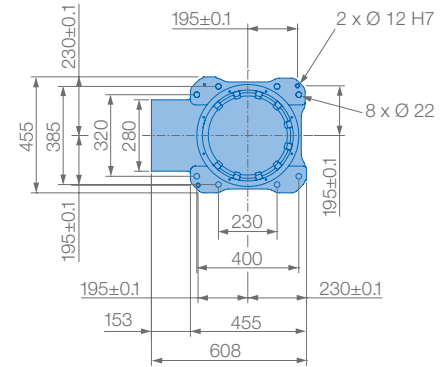
View A



View B

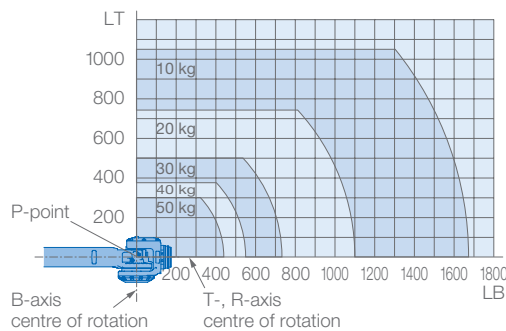


View C



Robot installation angle Ø [deg.]	S-axis operating range [deg.]
0 ≤ Ø ≤ 30	±180 (Standard)
30 < Ø ≤ 35	±60
35 < Ø ≤ 45	±45
45 < Ø	±30

Allowable wrist load



Mounting options: Floor, ceiling, wall, tilt*

Please notice wall mounting option:
±30° S-axis limit

Please notice ceiling mounting option:
Please notice working range of B-axis

Please notice tilted robot:
0°–90° limitation of S-axis, details on request

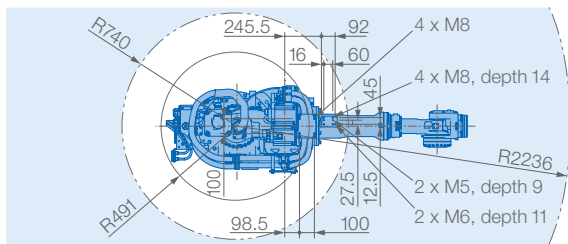
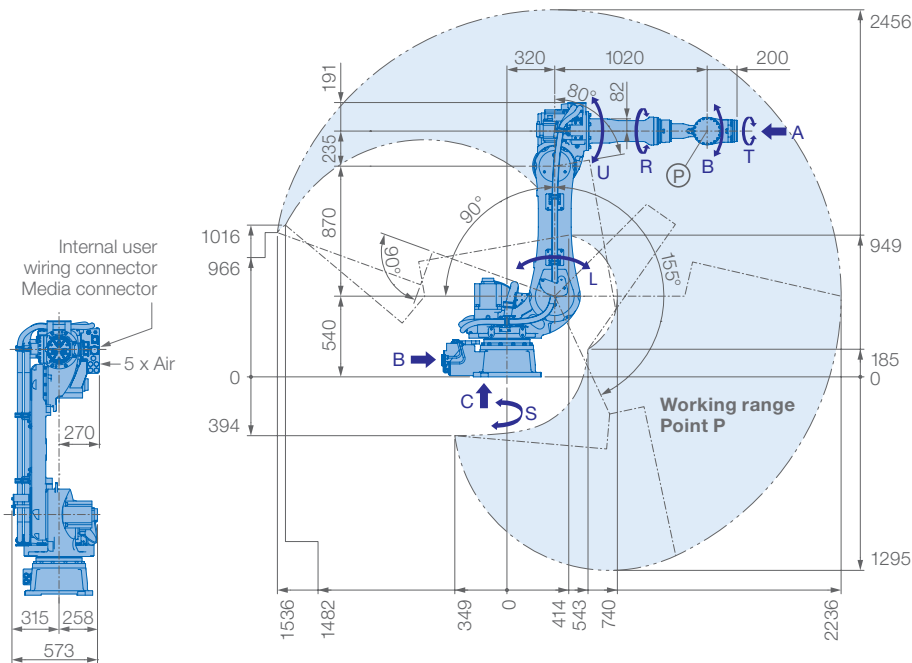
Protection class: IP54/67

Please notice: Just valid for body/wrist, connector base not protected

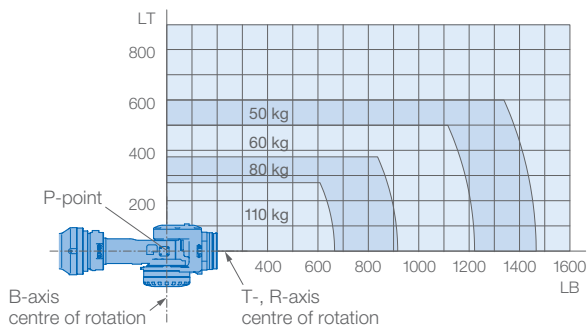
*tilt with condition of angle – see table left side

Specifications GP50

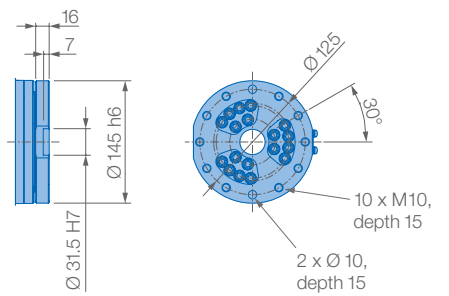
Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m ²]	Controlled axes	6
S	±180	180	–	–	Max. payload [kg]	50
L	+135/–90	178	–	–	Repeatability [mm]	±0.07
U	+206/–80	178	–	–	Max. working range R [mm]	2061
R	±360	250	216	28	Temperature [°C]	0 to +45
B	±125	250	216	28	Humidity [%]	20 – 80
T	±360	360	147	11	Weight [kg]	570
					Power supply, average [KVA]	4.0



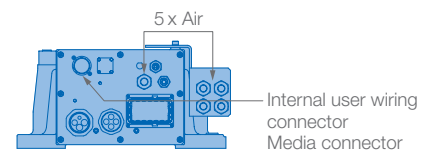
Allowable wrist load



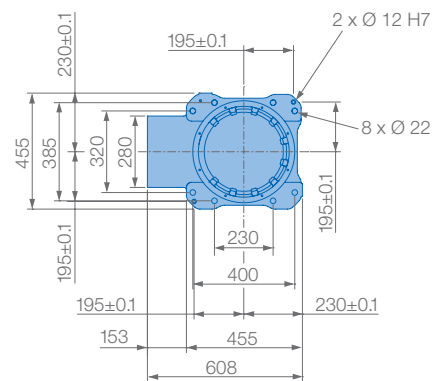
View A



View B



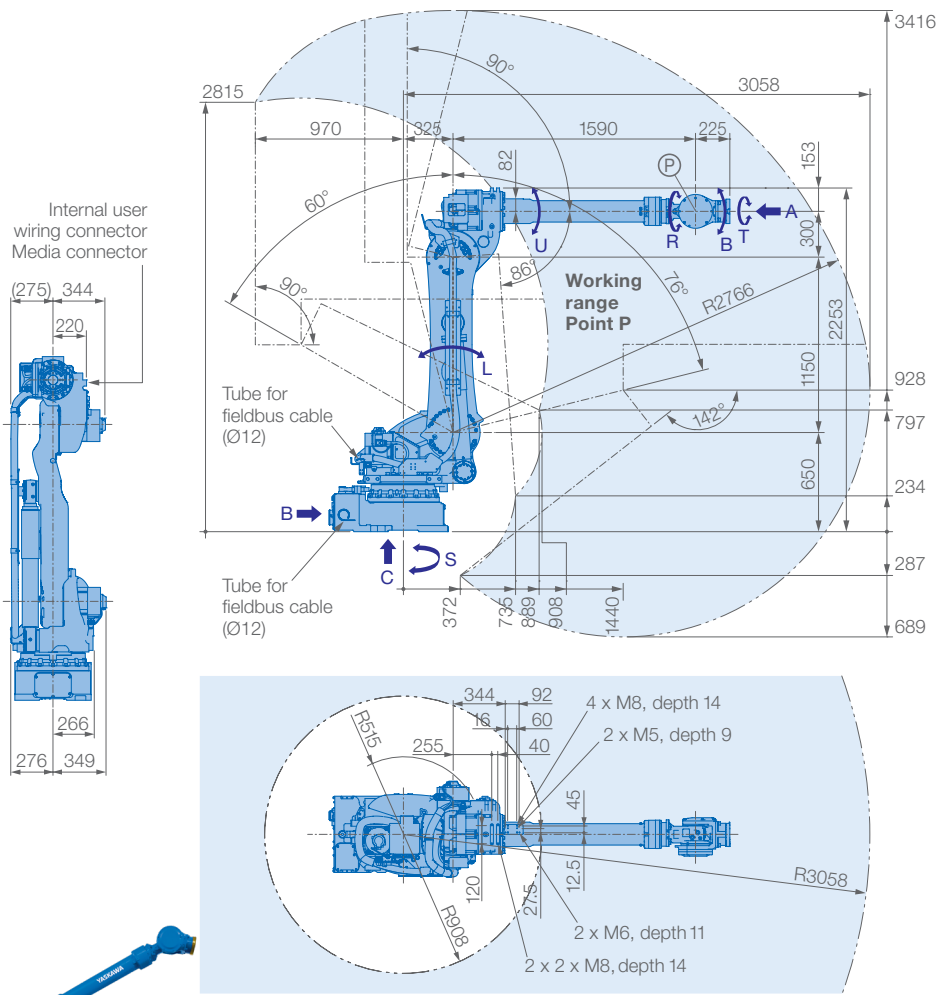
View C



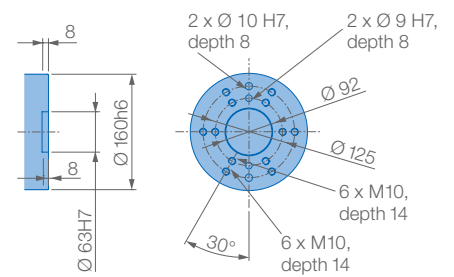
Mounting options: Floor
Protection class: IP54/67



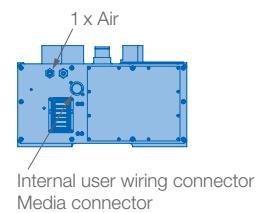
Specifications GP110						
Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m ²]	Controlled axes	6
S	±180	140	-	-	Max. payload [kg]	110
L	+155/-90	110	-	-	Repeatability [mm]	±0.07
U	+90/-80	130	-	-	Max. working range R [mm]	2236
R	±360	175	721	60	Temperature [°C]	0 to +45
B	±125	175	721	60	Humidity [%]	20 - 80
T	±360	255	294	33.7	Weight [kg]	660
					Power supply, average [KVA]	5.0



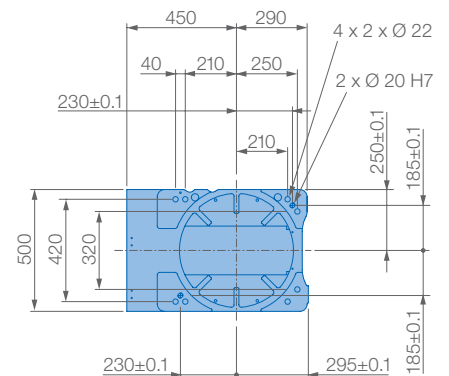
View A



View B



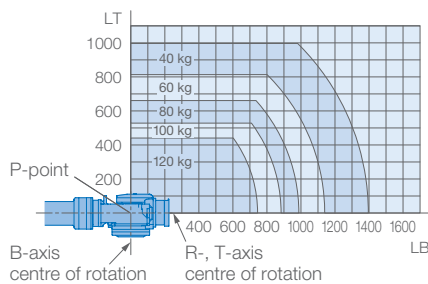
View C



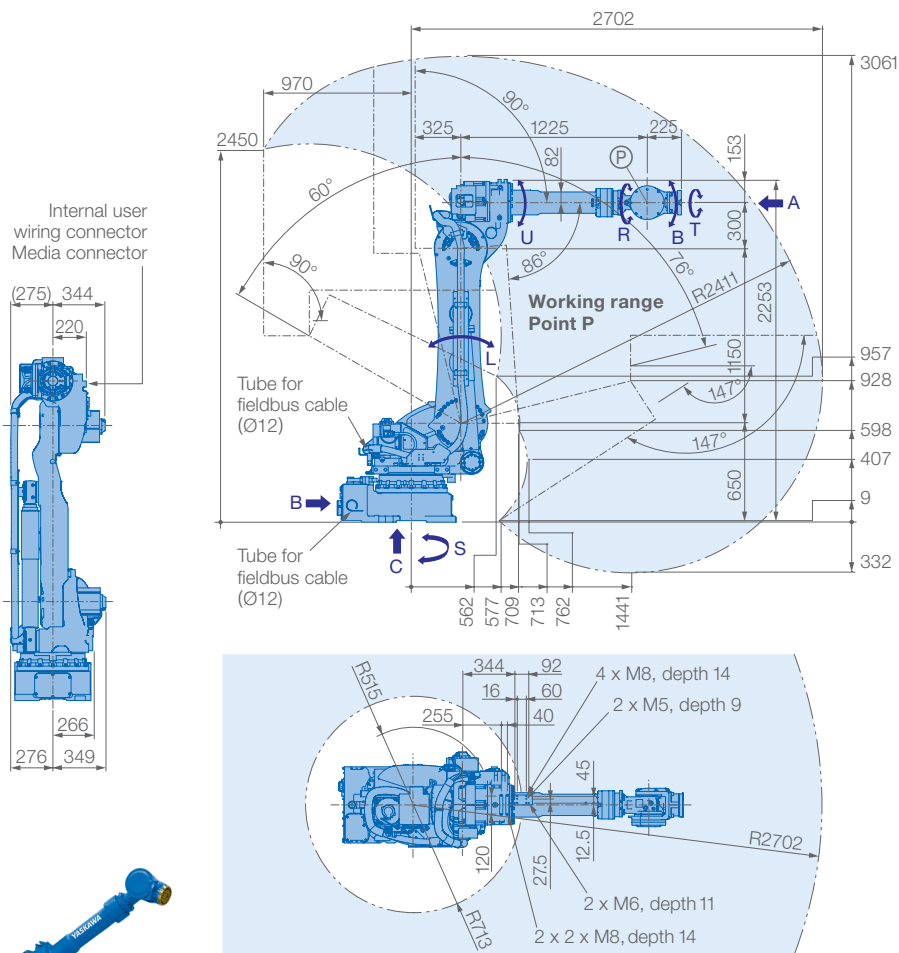
Mounting option: Floor
Protection class: IP54/67



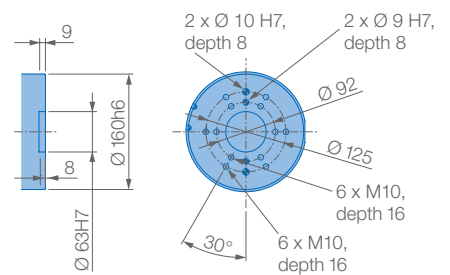
Allowable wrist load



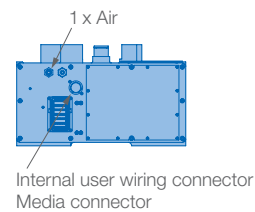
Specifications GP180-120						
Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m ²]	Controlled axes	6
S	±180	125	-	-	Max. payload [kg]	120
L	+76/-60	115	-	-	Repeatability [mm]	±0.2
U	+90/-86	125	-	-	Max. working range R [mm]	3058
R	±360	182	883	79	Temperature [°C]	0 to +45
B	±130	175	883	79	Humidity [%]	20 - 80
T	±360	265	520	40	Weight [kg]	1090
					Power supply, average [KVA]	5.0



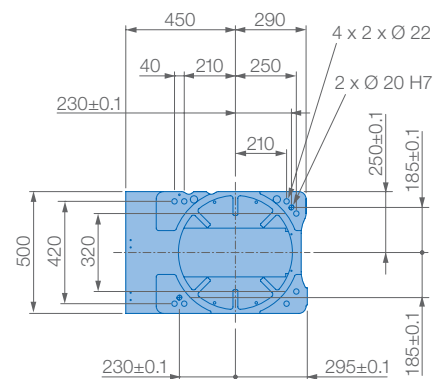
View A



View B

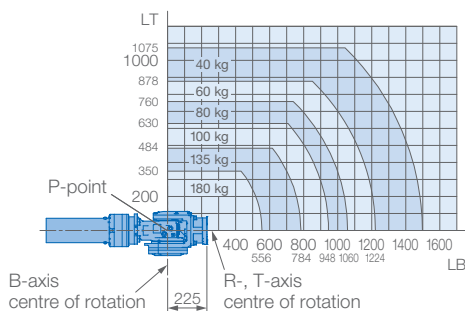


View C

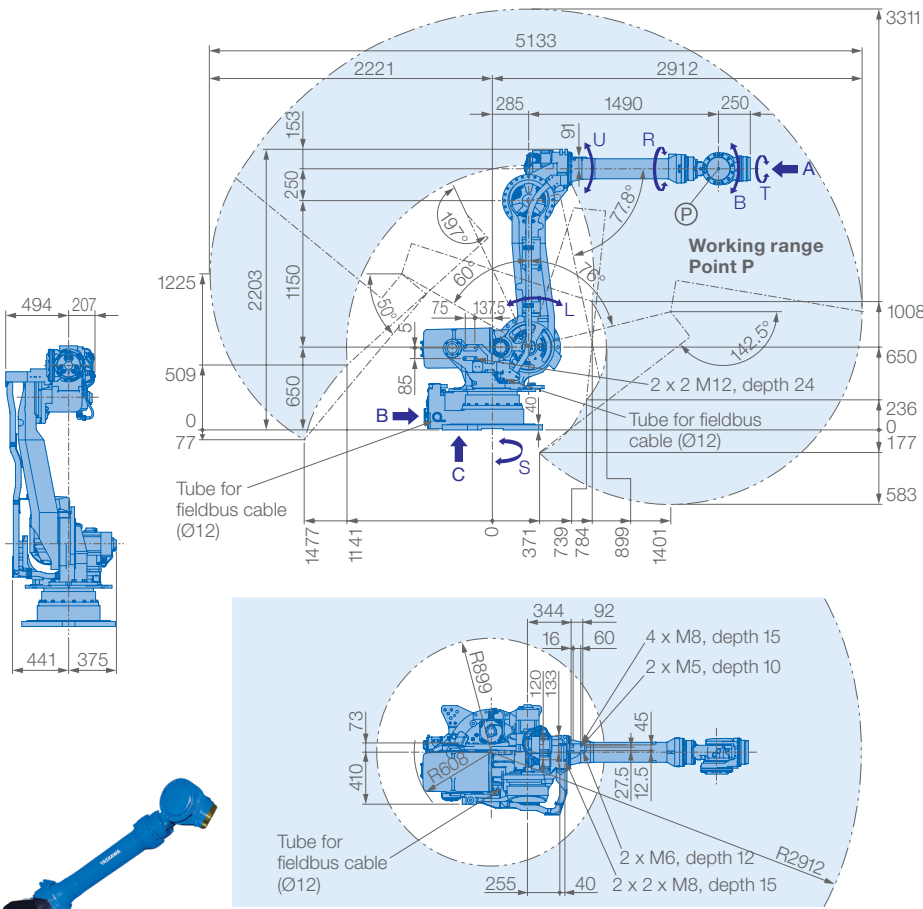


Mounting option: Floor
Protection class: IP54/67

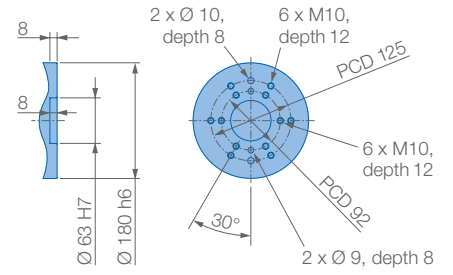
Allowable wrist load



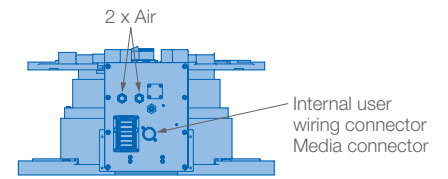
Specifications GP180					
Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m ²]	Controlled axes
S	±180	125	-	-	6
L	+76/-60	115	-	-	Max. payload [kg]
U	+90/-86	125	-	-	Repeatability [mm]
R	±360	182	1000	90	Max. working range R [mm]
B	±130	175	1000	90	Temperature [°C]
T	±360	265	618	46.3	Humidity [%]
					Weight [kg]
					Power supply, average [KVA]



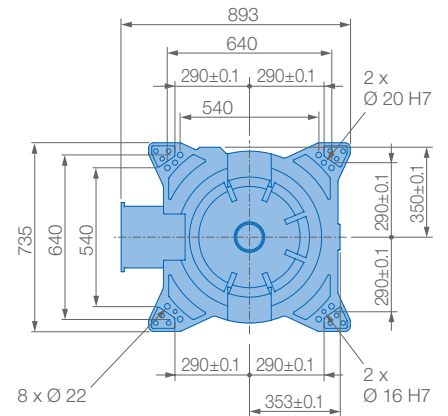
View A



View B

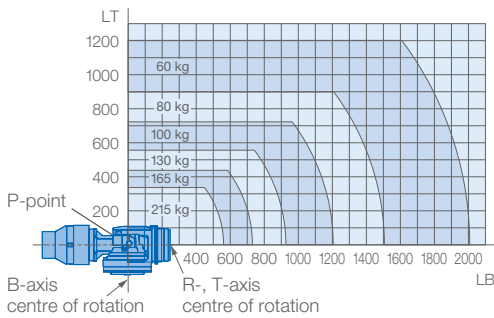


View C

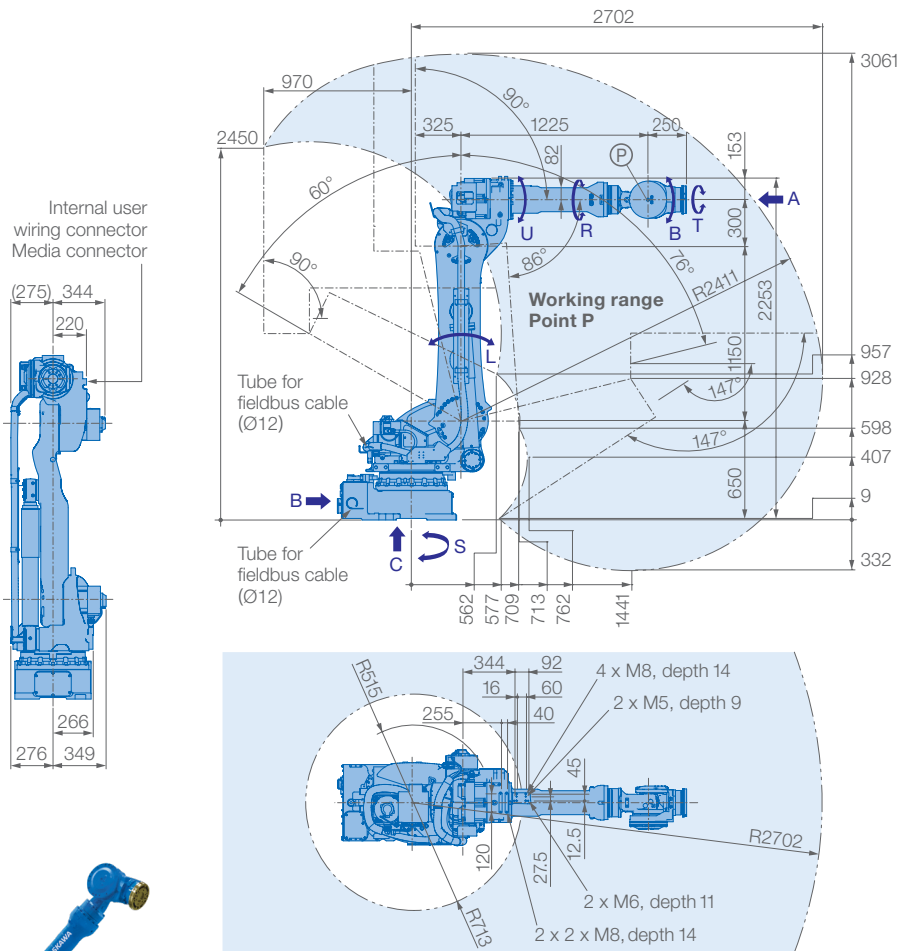


Mounting option: Floor
Protection class: IP54/67

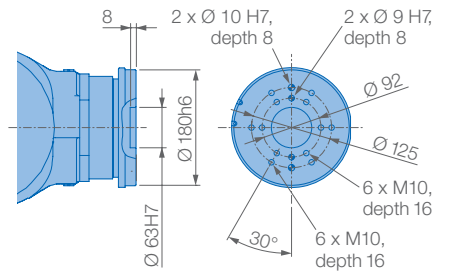
Allowable wrist load



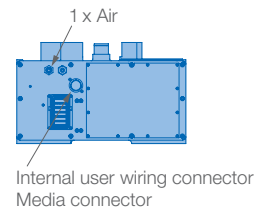
Specifications GP215						
Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m ²]	Controlled axes	6
S	±180	100	-	-	Max. payload [kg]	215
L	+76/-60	90	-	-	Repeatability [mm]	±0.2
U	+197/-77.8	97	-	-	Max. working range R [mm]	2912
R	±360	120	1176	317	Temperature [°C]	0 to +45
B	±125	120	1176	317	Humidity [%]	20 - 80
T	±360	190	710	200	Weight [kg]	1340
					Power supply, average [KVA]	5.0



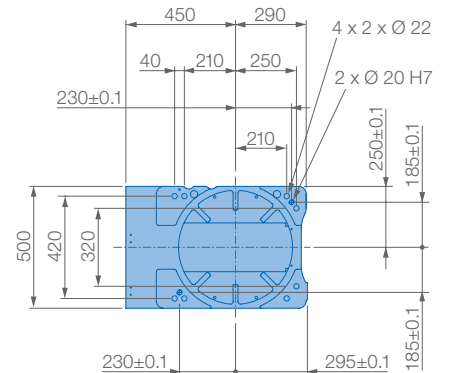
View A



View B



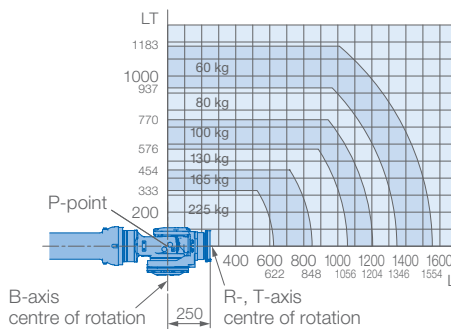
View C



Mounting option: Floor
Protection class: IP54/67

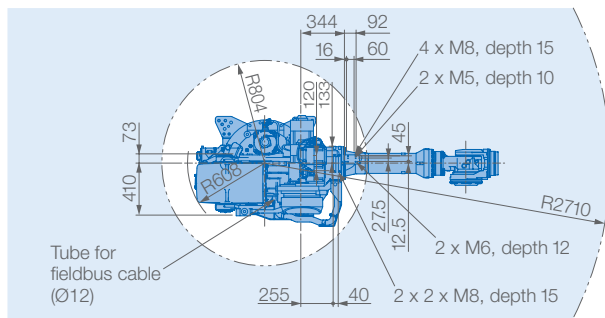
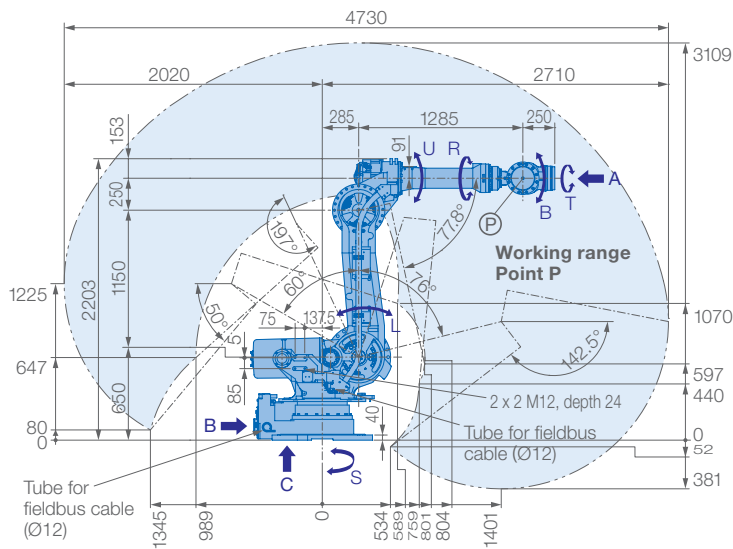
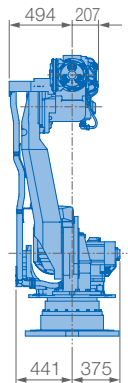


Allowable wrist load

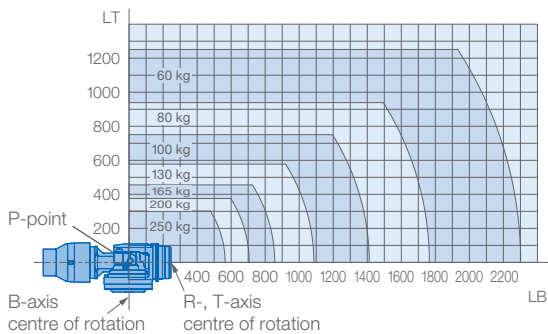


Specifications GP225

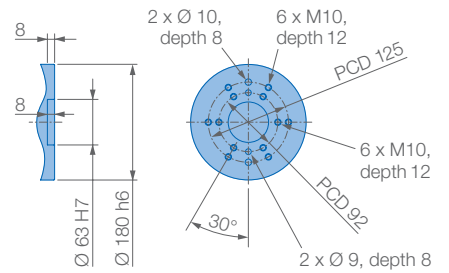
Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m ²]	Controlled axes	6
S	±180	120	–	–	Max. payload [kg]	225
L	+76/–60	97	–	–	Repeatability [mm]	±0.2
U	+90/–86	115	–	–	Max. working range R [mm]	2702
R	±360	145	1372	145	Temperature [°C]	0 to +45
B	±125	145	1372	145	Humidity [%]	20 – 80
T	±360	220	735	84	Weight [kg]	1080
					Power supply, average [KVA]	5.0



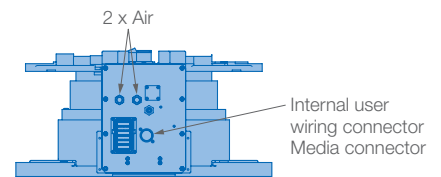
Allowable wrist load



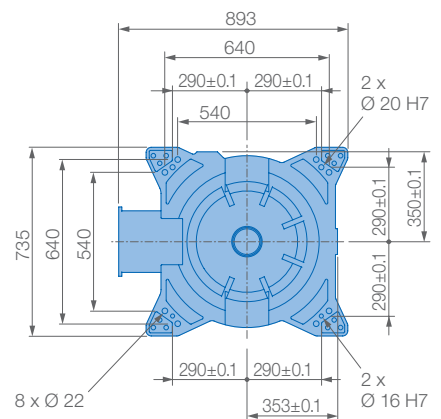
View A



View B



View C

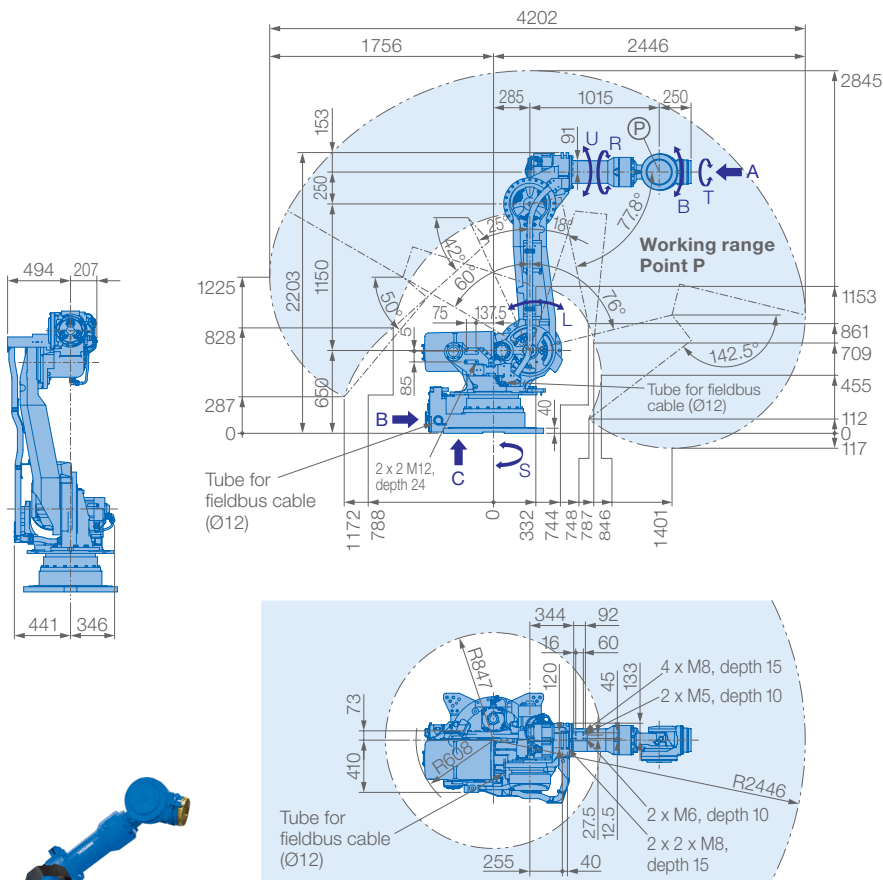


Mounting option: Floor
Protection class: IP54/67

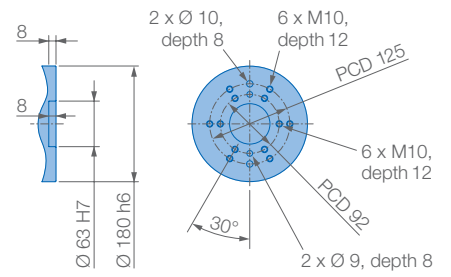


Specifications GP250

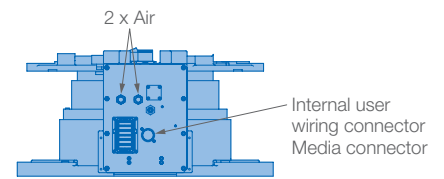
Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m ²]	Controlled axes	
					Max. payload [kg]	6
S	±180	100	-	-	250	Repeatability [mm]
L	+76/-60	90	-	-	±0.2	Max. working range R [mm]
U	+197/-77.8	97	-	-	2710	Temperature [°C]
R	±360	120	1385	317	0 to +45	Humidity [%]
B	±125	120	1385	317	20 - 80	Weight [kg]
T	±360	190	735	200	1345	Power supply, average [KVA]
					5.0	



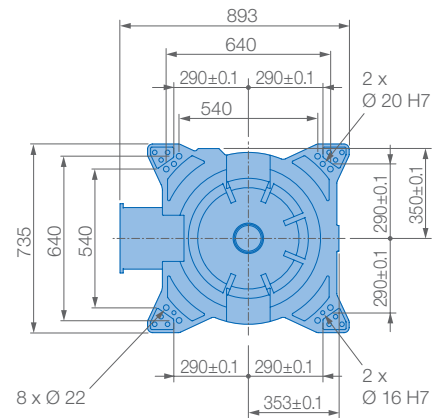
View A



View B

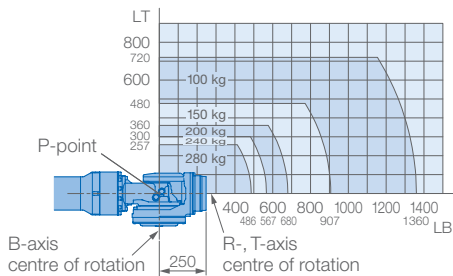


View C

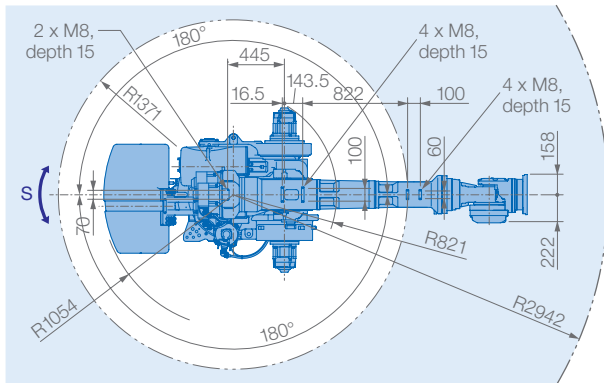
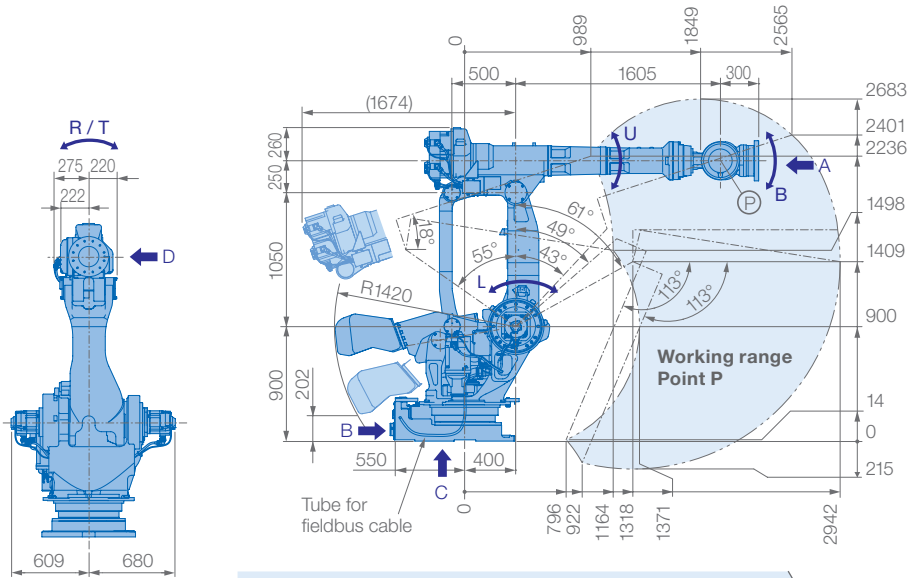


Mounting option: Floor
Protection class: IP54/67

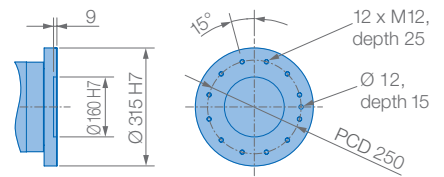
Allowable wrist load



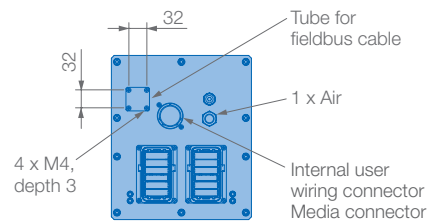
Specifications GP280						
Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m ²]	Controlled axes	6
S	±180	90	-	-	Max. payload [kg]	280
L	+76/-60	80	-	-	Repeatability [mm]	±0.2
U	+197/-77.8	90	-	-	Max. working range R [mm]	2446
R	±360	115	1333	142	Temperature [°C]	0 to +45
B	±125	110	1333	142	Humidity [%]	20 - 80
T	±360	190	706	79	Weight [kg]	1300
					Power supply, average [KVA]	5.0



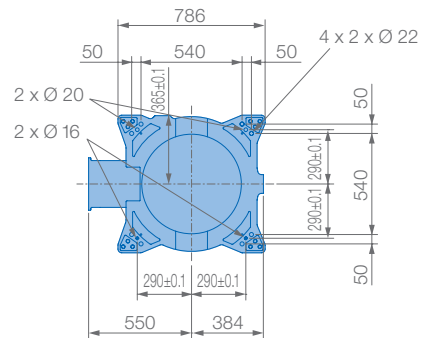
View A



View B

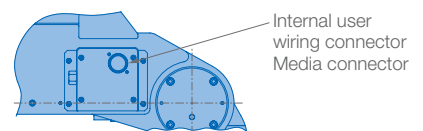


View C

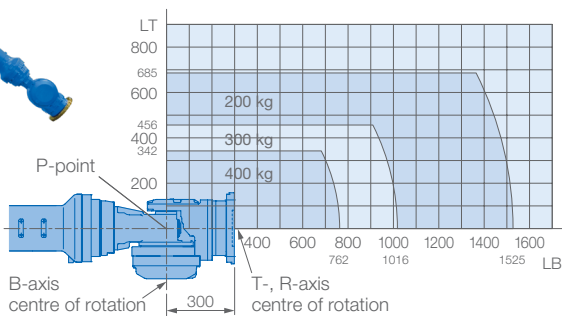


Mounting option: Floor
Protection class: IP30/67

View D



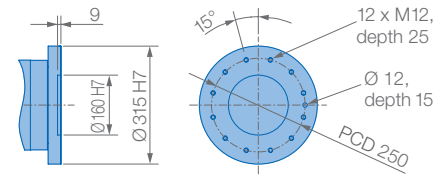
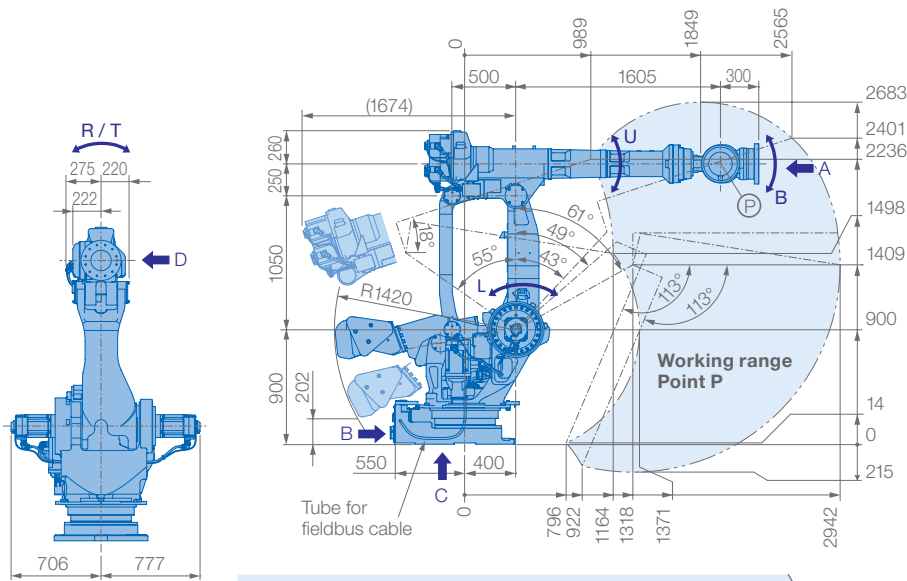
Allowable wrist load



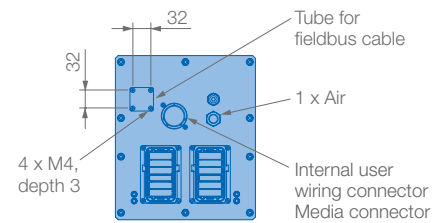
EN ISO 9001
Zertifiziert Nr. 20 100 9864
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Specifications GP400

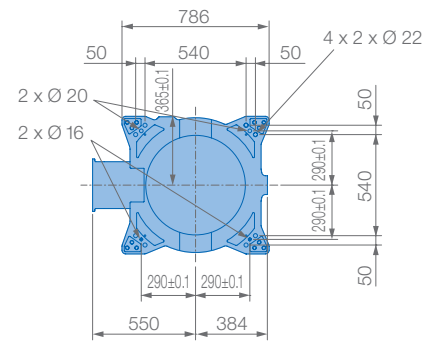
Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m ²]	Controlled axes	6
S	±180	102	–	–	Max. payload [kg]	400
L	+61/–55	97	–	–	Repeatability [mm]	±0.3
U	+18/–113	97	–	–	Max. working range R [mm]	2942
R	±360	80	2989	500	Temperature [°C]	0 to +45
B	±115	80	2989	500	Humidity [%]	20 – 80
T	±360	172	1343	315	Weight [kg]	2840
					Power supply, average [KVA]	7.0



View B

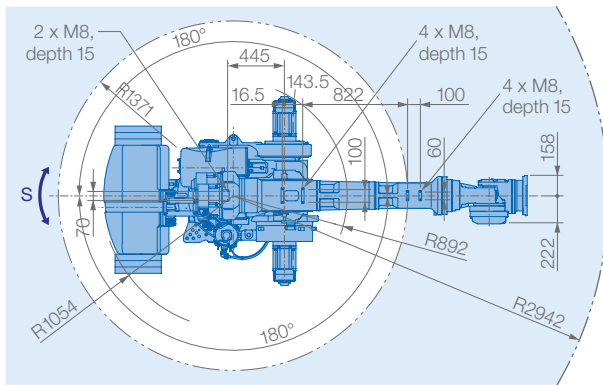
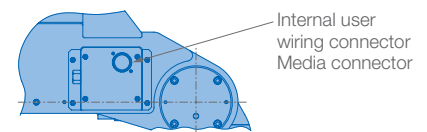


View C

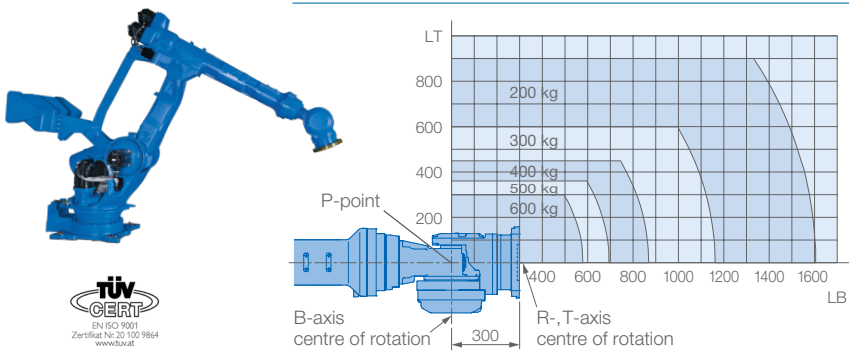


Mounting option: Floor
Protection class: IP30/67

View D



Allowable wrist load



Specifications GP600

Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m ²]	Controlled axes	
					Max. payload [kg]	
S	±180	82	–	–	6	600
L	+61/–55	82	–	–	Repeatability [mm]	±0.3
U	+18/–113	82	–	–	Max. working range R [mm]	2942
R	±360	80	3430	520	Temperature [°C]	0 to +45
B	±115	80	3430	520	Humidity [%]	20 – 80
T	±360	162	1764	350	Weight [kg]	3035
					Power supply, average [KVA]	7.0

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Todas las dimensiones en mm
Los datos técnicos pueden estar sujetos a cambios sin previo aviso
Serie GP
ES-10-2021