

Collaborative Robots TM5

Collaborative robot for assembly, packaging, inspection, and logistics

- Designed to promote a safe and harmonious workplace between humans and machines.
- Easy-to-use graphical programming environment for quick startup and operation.
- Built-in vision-based robot control enables visual serving, inspection, and measurement operations.
- TMvision and Landmark allow truly flexible, fast changeover.
- Plug & Play ecosystem provides the tools and versatility for many manufacturing needs.
- Capability to integrate with mobile robots enables fully autonomous machine tending and logistics handling applications.
- Food Grade Grease* option available (supplied with food grade grease).



TM5-700

TM5-900

TM5 Ordering Information

Type	Power Source	Integrated Camera	Reach	SEMI S2 Certified	Food Grade Grease*	Fieldbus	Cable Length	Part Number			
TM5	AC	Yes	700 mm	No	No	No	3 m	RT6-0007001			
						Yes		RT6-0007021			
						Yes		No	RT6-0007031		
								Yes	RT6-0007041		
						No		No	RT6-0007002		
								Yes	RT6-0007022		
		No			No	No	3 m	RT6-0017001			
						Yes		RT6-0017021			
						Yes		RT6-0017031			
					Yes	No		RT6-0017041			
						Yes		RT6-0017002			
						Yes		RT6-0017022			
	DC	Yes	900 mm	No	No	No	1.5 m	RT6-0107001			
						Yes		RT6-0107021			
						Yes		RT6-0107011			
		No				No		RT6-0117001			
						Yes		RT6-0117021			
						Yes		RT6-0117021			
	AC	Yes			No	No	No	No	3 m	RT6-0009001	
								Yes		RT6-0009021	
								Yes		No	RT6-0009031
										Yes	RT6-0009041
								No		No	RT6-0009002
										Yes	RT6-0009022
No		No	No	3 m	RT6-0019001						
			Yes		RT6-0019021						
			Yes		RT6-0019031						
		Yes	No		RT6-0019041						
			Yes		RT6-0019002						
			Yes		RT6-0019022						
DC	Yes	900 mm	No	No	No	1.5 m	RT6-0109001				
					Yes		RT6-0109021				
					Yes		RT6-0109011				
	No				No		RT6-0119001				
					Yes		RT6-0119021				
					Yes		RT6-0119021				

* Food Grade Grease robots are not FDA certified. They are only suitable for select food-related applications, and require an evaluation and risk assessment of the use environment.

Part Number Structure

RT6 - □ □ □ □ □ □ □ □
 1 2 3 4 5 6 7 8

No.	Item	Specifications	Symbol
(1)		Techman Series	
(2)	Model Type	TM5	0
(3)	Power Source	AC	0
		DC	1
(4)	Integrated Camera	Standard	0
		X Model (no camera)	1
(5)(6)	Arm Length	700	70
		900	90
(7)	Option	Standard	0
		Semi	1
		Fieldbus	2
		Food Grade Grease	3
		Food Grade Grease, Fieldbus	4
(8)	Cable Length	Standard Length (1.5 m / 3 m) ^{*1}	1
		Extended Length (12 m) ^{*2}	2

*1 A 1.5 meter cable is standard for DC models and a 3 meter cable is standard for AC models.

*2 A 12 meter cable is available for all AC models except for the Food Grade Grease units.

Items Included with a TM5 Robot System

Item	Robot	Cable	Robot Stick	Control Box	Calibration Plates	I/O Cables	Landmark	Ground wire	Jumper Wire	Power cable	SEMI Switch	SEMI ESTOP Cable
Description	TM5-700 or TM5-900	3, 1.5, and 12 m options	Hand control to move robot	Robot Control Box	Large and small. Not with X model robots	1 m	Not with X model robots	3 m	3 cm	For Control Box (3 cable: B, G, F) 1.8 m	SEMI Emergency OFF, SEMI robots only	SEMI robots only, 3 m
Quantity	1	1	1	1	2	2	2	2	2	1	1	1

Specifications

Product Name		TM5-700		TM5X-700		TM5-900		TM5X-900	
Power Source		AC	DC	AC	DC	AC	DC	AC	DC
Weight (kg)		22.1		21.8		22.6		22.3	
Controller Weight (kg)		13.5	14.5	13.5	14.5	13.5	14.5	13.5	14.5
Max Payload (kg)		6				4			
Reach (mm)		700				900			
Mounting		Wall, Table, Ceiling							
Average Speed (m/s)		1.1				1.4			
Joint Range	Joint 1	±270°		±360°		±270°		±360°	
	Joint 2, 4, 5	±180°		±360°		±180°		±360°	
	Joint 3	±155°							
	Joint 6	±270°		±360°		±270°		±360°	
Joint Speeds	Joint 1, 2, 3	180°/s							
	Joint 4, 5, 6	225°/s							
Repeatability (mm)		±0.05							
Ingress Protection		IP54 (robot arm), IP32 (control box), IP40 (robot stick)							
Cleanroom Class		ISO Class 3							
Operating Temperature and Humidity		0 to 50°C, 85% max. (with no condensation)							
Storage Temperature and Humidity		-20 to 60°C, 75% max. (with no condensation)							
Operating and Storage Environment		No corrosive gases or exposure to water-soluble cutting oil. ^{*1}							
Motor Power Supply		100 to 240 VAC, 50/60 Hz	22 to 60 VDC	100 to 240 VAC, 50/60 Hz	22 to 60 VDC	100 to 240 VAC, 50/60 Hz	22 to 60 VDC	100 to 240 VAC, 50/60 Hz	22 to 60 VDC
Robot Arm Cable Length		3 m or 12 m	1.5 m	3 m or 12 m	1.5 m	3 m or 12 m	1.5 m	3 m or 12 m	1.5 m

Product Name		TM5-700		TM5X-700		TM5-900		TM5X-900	
Power Source		AC	DC	AC	DC	AC	DC	AC	DC
I/O Ports	Control Box	Digital In: 16, Digital Out: 16 Analog In: 2, Analog Out: 1							
	Tool	Digital In: 4, Digital Out: 4 Analog In: 1, Analog Out: 0							
I/O Interface		COM: 3, HDMI: 1, LAN: 3, USB2.0: 4, USB3.0: 2							
Communication		RS232, Ethernet (master), Modbus TCP/RTU (master & slave), PROFINET (optional), EtherNet/IP (optional)							
I/O Power Supply		24 VDC 2.0 A (control box) / 24 VDC 1.5 A (tool)							
Programming Environment		TMflow, flowchart based							
Integrated Camera Available		5 MP, color		None		5 MP, color		None	
SEMI S2 Certified ^{*2} Available		No	Yes	No	Yes	No	Yes	No	Yes
Fieldbus Available		EtherNet/IP, PROFINET ^{*3}							

*1 If water-soluble cutting oil is present, use a protective sleeve to prevent damage to the robot housing. OMRON offers enhanced joint covers for these applications. Contact your local OMRON representative for more information.

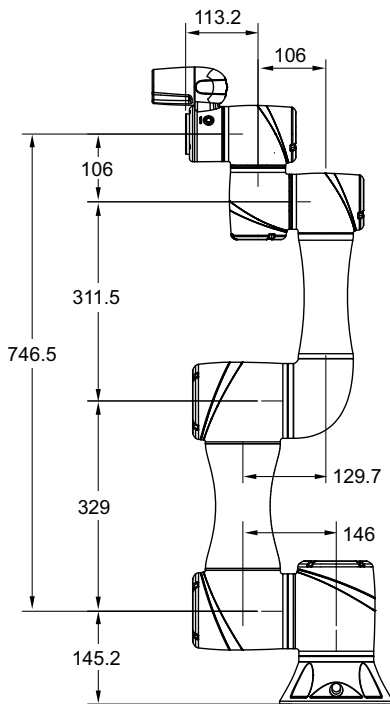
*2 SEMI (Semiconductor Equipment and Materials International) is the central global network of manufacturers of micro and nano electronics that issues safety guidelines. SEMI S2 is the most well-known standard in semiconductor manufacturing equipment for Environmental, Health, and Safety (EHS).

*3 A Fieldbus upgrade is available for HW3.2 robots with TMflow v1.80 or higher. Contact your local OMRON representative for more information. The Fieldbus option is not available for SEMI S2 certified robots.

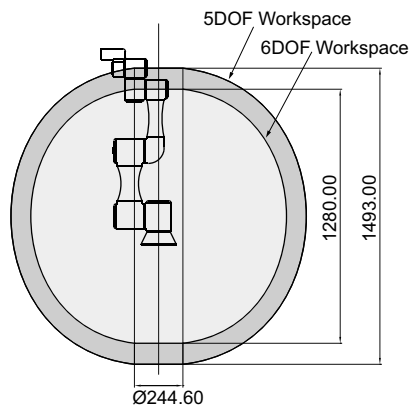
Dimensions

(Unit: mm)

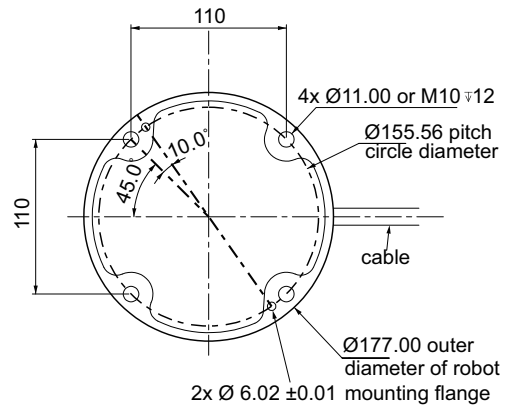
TM5-700



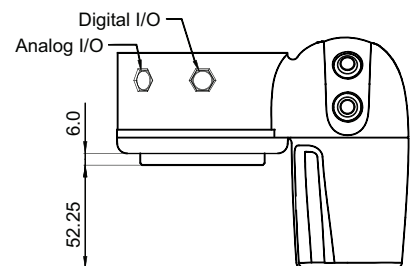
Workspace Side View



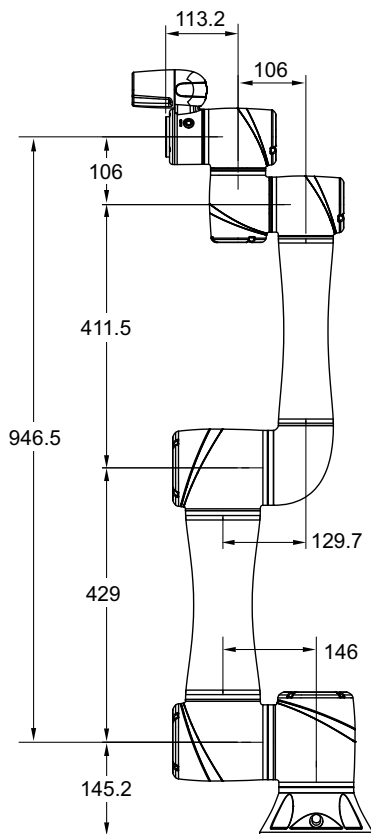
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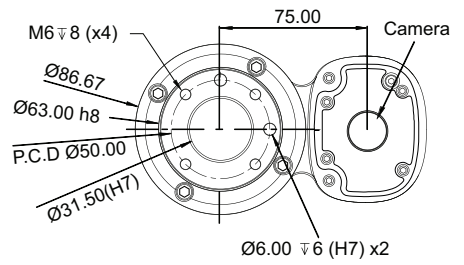
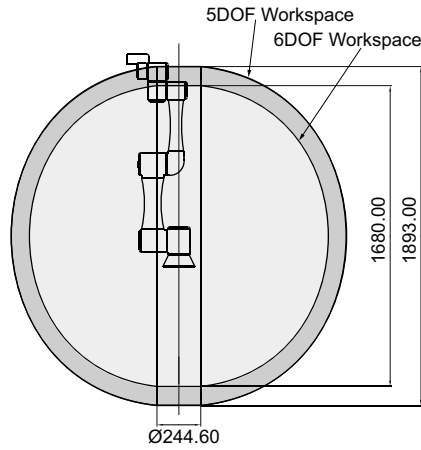
Flange



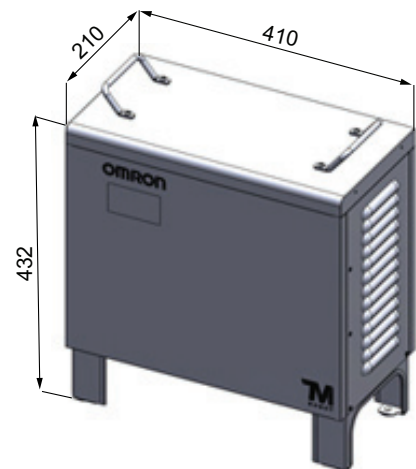
TM5-900



Workspace Side View



Control Box



Collaborative Robots TM12/14

Collaborative robot for assembly, packaging, inspection, and logistics

- Designed to promote a safe and harmonious workplace between humans and machines.
- Easy-to-use graphical programming environment for quick startup and operation.
- Built-in vision-based robot control enables visual serving, inspection, and measurement operations.
- TMvision and Landmark allow truly flexible, fast changeover.
- Plug & Play ecosystem provides the tools and versatility for many manufacturing needs.
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- Food Grade Grease* option available (supplied with food grade grease).



TM12

TM14

TM12 and TM14 Ordering Information

Type	Power Source	Integrated Camera	Reach	SEMI S2 Certified	Food Grade Grease*	Fieldbus	Cable Length	Part Number	
TM12	AC	Yes	1300 mm	No	No	No	3 m	RT6-1001301	
						Yes		RT6-1001321	
					Yes	No		RT6-1001331	
						Yes		RT6-1001341	
		No			No	No	12 m	RT6-1001302	
						Yes		RT6-1001322	
					Yes	No	3 m	RT6-1011301	
								Yes	RT6-1011321
	DC	Yes	No	1300 mm	No	No	3 m	RT6-1011331	
						Yes		RT6-1011341	
		No				No		12 m	RT6-1011302
									Yes
	No	No	No	1300 mm	No	No	1.5 m	RT6-1101301	
						Yes		RT6-1101321	
		Yes				No		3 m	RT6-1101311
									Yes
TM14	AC	Yes	1100 mm	No	No	No	3 m	RT6-2001101	
						Yes		RT6-2001121	
					Yes	No		RT6-2001131	
						Yes		RT6-2001141	
		No			No	12 m	RT6-2001102		
							Yes	RT6-2001122	
					Yes	No	3 m	RT6-2011101	
								Yes	RT6-2011121
	DC	Yes	No	1100 mm	No	No	3 m	RT6-2011131	
						Yes		RT6-2011141	
		No				No		12 m	RT6-2011102
									Yes
	No	No	No	1100 mm	No	No	1.5 m	RT6-2101101	
						Yes		RT6-2101121	
		Yes				No		3 m	RT6-2101111
									Yes
No	No	No	1100 mm	No	No	1.5 m	RT6-2111101		
					Yes		RT6-2111121		
	Yes				No		3 m	RT6-2101102	
								Yes	RT6-2101122

* Food Grade Grease robots are not FDA certified. They are only suitable for select food-related applications, and require an evaluation and risk assessment of the use environment.

Part Number Structure

RT6 - □ □ □ □ □ □ □
 1 2 3 4 5 6 7 8

No.	Item	Specifications	Symbol
(1)		Techman Series	
(2)	Model Type	TM12	1
		TM14	2
(3)	Power Source	AC	0
		DC	1
(4)	Integrated Camera	Standard	0
		X Model (no camera)	1
(5)(6)	Arm Length	1300 (TM12)	13
		1100 (TM14)	11
(7)	Option	Standard	0
		Semi	1
		Fieldbus	2
		Food Grade Grease	3
		Food Grade Grease, Fieldbus	4
(8)	Cable Length	Standard Length (3 m/1.5 m) ^{*1}	1
		Extended Length (12 m) ^{*2}	2

*1 A 1.5 meter cable is standard for DC models and a 3 meter cable is standard for AC models.

*2 A 12 meter cable is available for all AC models except for the Food Grade Grease units.

Items Included with a TM12/TM14 Robot System

Item	Robot	Cable	Robot Stick	Control Box	Calibration Plates	I/O Cables	Landmark	Ground Wire	Jumper Wire	Power cable	SEMI Switch	SEMI ESTOP Cable
Description	TM12, TM14	3, 1.5, or 12 m options	Hand control to move robot	Robot Control Box	Large, small. (Not X model robots)	1 m	Not with X model robots	3 m	3 cm	For Control Box (3 cable: B, G, F) 1.8 m	SEMI Emergency OFF, SEMI robots only	SEMI robots only, 3 m
Quantity	1	1	1	1	2	2	2	2	2	1	1	1

Specifications

Product Name	TM12		TM12X		TM14		TM14X		
	AC	DC	AC	DC	AC	DC	AC	DC	
Power Source									
Weight (kg)	32.8		32.5		32.5		32.2		
Controller Weight (kg)	13.8	14.5	13.8	14.5	13.8	14.5	13.8	14.5	
Max Payload (kg)	12				14				
Reach (mm)	1300				1100				
Mounting	Wall, Table, Ceiling								
Average Speed (m/s)	1.3				1.1				
Joint Range	Joint 1	±270°		±360°		±270°		±360°	
	Joint 2, 4, 5	±180°		±360°		±180°		±360°	
	Joint 3	±166°				±163°			
	Joint 6	±270°		±360°		±270°		±360°	
Joint Speeds	Joint 1, 2	120°/s							
	Joint 3	180°/s							
	Joint 4, 5	180°/s				150°/s			
	Joint 6	180°/s							
Repeatability (mm)	±0.1								
Ingress Protection	IP54 (robot arm), IP32 (control box), IP40 (robot stick)								
Cleanroom Class	ISO Class 3								
Operating Temperature and Humidity	0 to 50°C, 85% max. (with no condensation)								
Storage Temperature and Humidity	-20 to 60°C, 75% max. (with no condensation)								
Operating and Storage Environment	No corrosive gases or exposure to water-soluble cutting oil ^{*1}								
Motor Power Supply	100 to 240 VAC, 50/60 Hz	22 to 60 VDC	100 to 240 VAC, 50/60 Hz	22 to 60 VDC	100 to 240 VAC, 50/60 Hz	22 to 60 VDC	100 to 240 VAC, 50/60 Hz	22 to 60 VDC	

Product Name		TM12		TM12X		TM14		TM14X	
Power Source		AC	DC	AC	DC	AC	DC	AC	DC
Robot Arm Cable Length		3 m or 12 m	1.5 m	3 m or 12 m	1.5 m	3 m or 12 m	1.5 m	3 m or 12 m	1.5 m
I/O Ports	Control Box	Digital In: 16, Digital Out: 16 Analog In: 2, Analog Out: 1							
	Tool	Digital In: 4, Digital Out: 4 Analog In: 1, Analog Out: 0							
I/O Interface		COM: 3, HDMI: 1, LAN: 3, USB2.0: 4, USB3.0: 2							
Communication		RS232, Ethernet (master), Modbus TCP/RTU (master & slave), PROFINET (optional), EtherNet/IP (optional)							
I/O Power Supply		24 VDC 2.0 A (control box) / 24 VDC 1.5 A (tool)							
Programming Environment		TMflow, flowchart based							
Integrated Camera Available		5 MP, color		None		5 MP, color		None	
SEMI S2 Certified ^{*2} Available		No	Yes	No	Yes	No	Yes	No	Yes
Fieldbus Available		EtherNet/IP, PROFINET ^{*3}							

*1 If water-soluble cutting oil is present, use a protective sleeve to prevent damage to the robot housing. OMRON offers enhanced joint covers for these applications. Contact your local OMRON representative for more information.

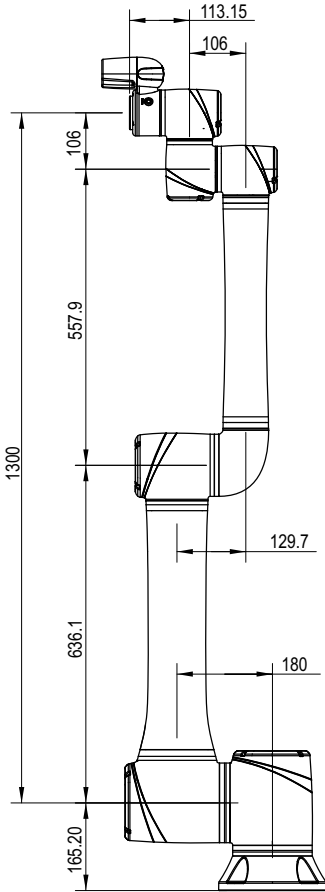
*2 SEMI (Semiconductor Equipment and Materials International) is the central global network of manufacturers of micro and nano electronics that issues safety guidelines. SEMI S2 is the most well-known standard in semiconductor manufacturing equipment for Environmental, Health, and Safety (EHS).

*3 A Fieldbus upgrade is available for HW3.2 robots with TMflow v1.80 or higher. Contact your local OMRON representative for more information. The Fieldbus option is not available for SEMI S2 certified robots.

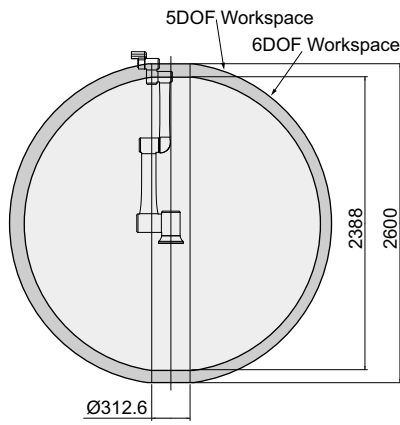
Dimensions

(Unit: mm)

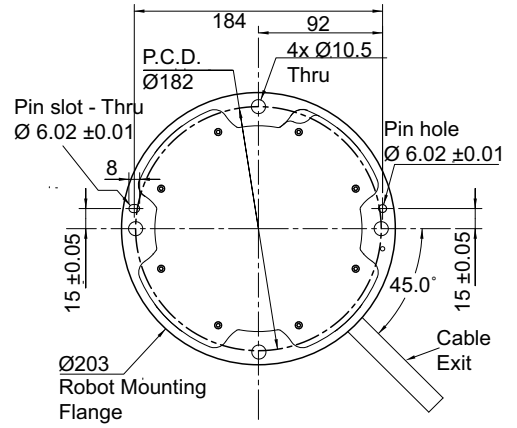
TM12



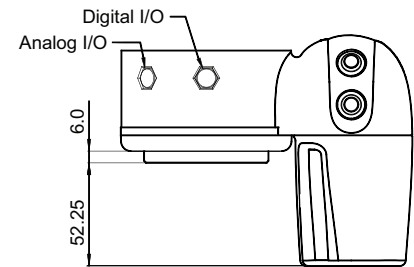
Workspace Side View



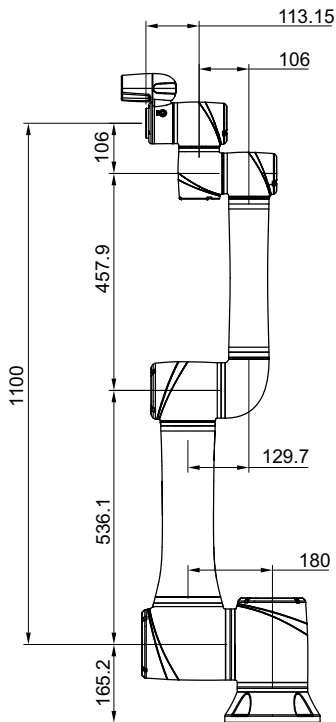
Footprint



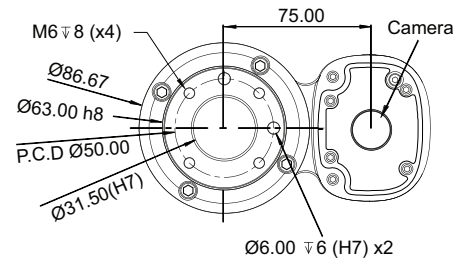
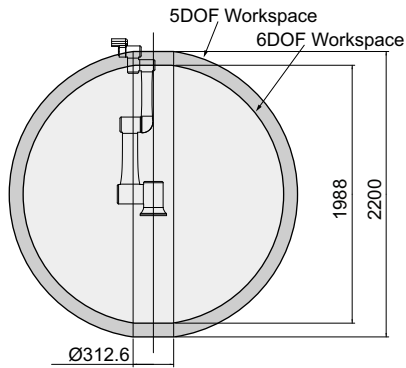
Flange



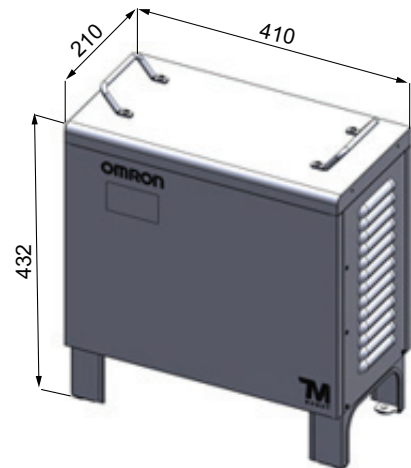
TM14



Workspace Side View



Control Box

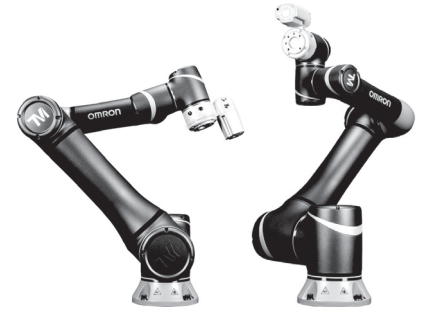


Collaborative Robots

TM16

Increased power and versatility for assembly, packaging, inspection, and logistics

- The combined 16 kg payload capacity and 900 mm reach expands material handling capabilities.
- Easy-to-use graphical programming environment for quick startup and operation.
- Built-in vision-based robot control enables visual serving, inspection, and measurement operations.
- TMvision and Landmark allow truly flexible, fast changeover.
- Plug & Play ecosystem provides the tools and versatility for many manufacturing needs.
- Capability to integrate with mobile robots enables fully autonomous machine tending and logistics handling applications.



TM16 Ordering Information

Type	Power Source	Integrated Camera	Reach	SEMI S2 Certified	Fieldbus	Cable Length	Part Number
TM16	AC	Yes	900 mm	No	No	3 m	RT6-3009001
		No			Yes		RT6-3019001
		Yes					RT6-3009021
		No			RT6-3019021		
	DC	Yes			No	No	RT6-3109001
		No				RT6-3119001	
		Yes			Yes	Yes	RT6-3109021
		No				RT6-3119021	
		Yes		Yes	No	RT6-3109011	

Global Part Number Structure

RT6 - □ □ □ □ □ □ □ □
 1 2 3 4 5 6 7 8

No.	Item	Specifications	Symbol
(1)		Techman Series	
(2)	Model Type	TM16	3
(3)	Power Source	AC	0
		DC	1
(4)	Integrated Camera	Standard	0
		X Model (no camera)	1
(5)(6)	Arm Length	900	9
(7)	Option	Standard	0
		Semi	1
		Fieldbus	2
(8)	Cable Length	Standard Length (1.5 m / 3 m) ^{*1}	1

*1 A 1.5 meter cable is standard for DC models and a 3 meter cable is standard for AC models.

Items Included with a TM16 Robot System

Item	Robot	Cable	Robot Stick	Control Box	Calibration Plates	I/O Cables	Landmark	Ground wire	Jumper Wire	Power cable	SEMI Switch	SEMI ESTOP Cable
Description	TM16	3 meter cable for AC unit and 1.5 meter cable for DC unit	Hand control to move robot	Robot Control Box	Large and small. Not with X model robots	1 m	Not with X model robots	3 m	3 cm	For Control Box (3 cable: B, G, F) 1.8 m	SEMI Emergency OFF, SEMI robots only	SEMI robots only, 3 m
Quantity	1	1	1	1	2	2	2	2	2	1	1	1

Specifications

Product Name		TM16		TM16X	
Power Source		AC	DC	AC	DC
Weight (kg)		32.2		31.9	
Controller Weight (kg)		14.1			
Max Payload (kg)		16			
Reach (mm)		900			
Mounting		Wall, Table, Ceiling			
Average Speed (m/s)		1.1			
Joint Range	Joint 1	±270°		±360°	
	Joint 2, 4, 5	±180°		±360°	
	Joint 3	±155°			
	Joint 6	±270°		±360°	
Joint Speeds	Joint 1, 2	120°/s			
	Joint 3, 4, 5, 6	180°/s			
Repeatability (mm)		±0.1			
Ingress Protection		IP54 (robot arm), IP32 (control box), IP40 (robot stick)			
Cleanroom Class		ISO Class 3			
Operating Temperature and Humidity		0 to 50°C, 85% max. (with no condensation)			
Storage Temperature and Humidity		-20 to 60°C, 75% max. (with no condensation)			
Operating and Storage Environment		No corrosive gases or exposure to water-soluble cutting oil.*1			
Motor Power Supply		100 to 240 VAC, 50/60 Hz	22 to 60 VDC	100 to 240 VAC, 50/60 Hz	22 to 60 VDC
Robot Arm Cable Length (m)		3	1.5	3	1.5
I/O Ports	Control Box	Digital In: 16, Digital Out: 16 Analog In: 2, Analog Out: 1			
	Tool	Digital In: 4, Digital Out: 4 Analog In: 1, Analog Out: 0			
I/O Interface		COM: 3, HDMI: 1, LAN: 3, USB2.0: 4, USB3.0: 2			
Communication		RS232, Ethernet (master), Modbus TCP/RTU (master & slave), PROFINET (optional), EtherNet/IP (optional)			
I/O Power Supply		24 VDC 2.0 A (control box) / 24 VDC 1.5 A (tool)			
Programming Environment		TMflow, flowchart based			
Integrated Camera Available		5 MP, color	None	5 MP, color	None
SEMI S2 Certified ² Available		No	Yes	No	No
Fieldbus Available		EtherNet/IP, PROFINET			

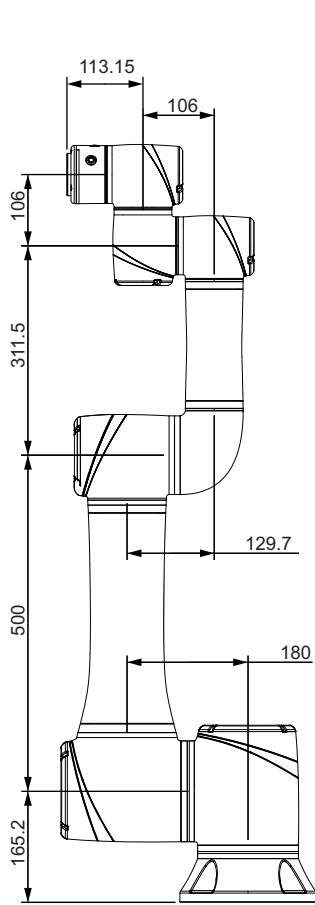
*1 If water-soluble cutting oil is present, use a protective sleeve to prevent damage to the robot housing. OMRON offers enhanced joint covers for these applications. Contact your local OMRON representative for more information.

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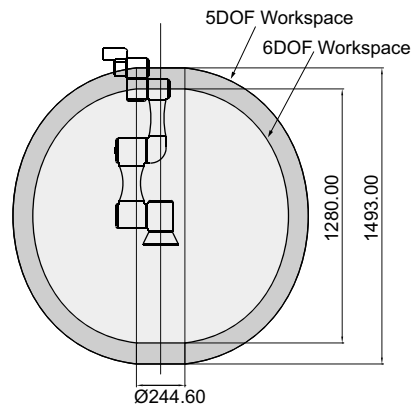
Dimensions

(Unit: mm)

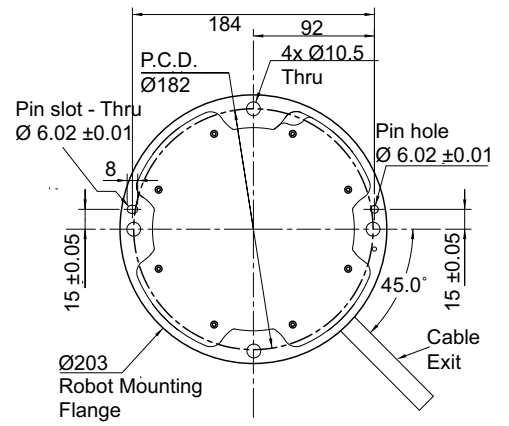
TM16



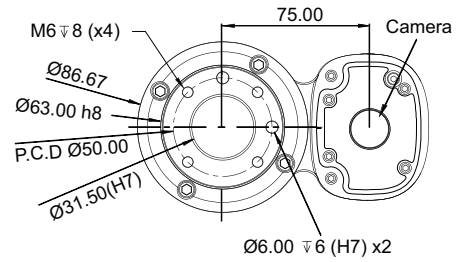
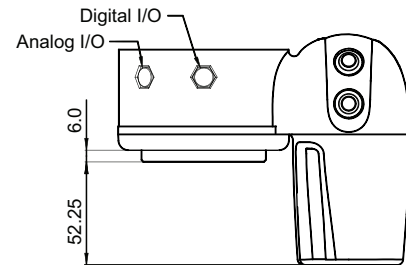
Workspace Side View



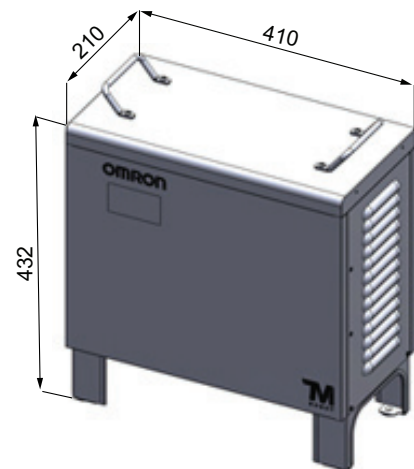
Footprint



Flange



Control Box



Collaborative Robots TM20

Increased power and versatility for assembly, packaging, inspection, and logistics

- The combined 20 kg payload capacity and 1300 mm reach expands material handling capabilities.
- Easy-to-use graphical programming environment for quick startup and operation.
- Built-in vision-based robot control enables visual serving, inspection, and measurement operations.
- TMvision and Landmark allow truly flexible, fast changeover.
- Plug & Play ecosystem provides the tools and versatility for many manufacturing needs.
- Capability to integrate with mobile robots enables fully autonomous machine tending and logistics handling applications.



TM20 Ordering Information

Type	Power Source	Integrated Camera	Reach	Fieldbus	SEMI S2 Certified	Cable Length	Part Number	
TM20	AC	Yes	1300 mm	No	No	3 m	RT6-4001301	
				Yes			RT6-4001321	
				No		12 m	RT6-4001302	
				Yes			RT6-4001322	
		No		No		3 m	RT6-4011301	
				Yes			RT6-4011321	
				No		12 m	RT6-4011302	
				Yes			RT6-4011322	
	DC	Yes		No	No	Yes	1.5 m	RT6-4101301
					Yes			RT6-4101321
					No			RT6-4101311
					Yes			RT6-4101351
		No			No		No	RT6-4111301
					Yes			RT6-4111321

Global Part Number Structure

RT6 - □ □ □ □ □ □ □ □
1 2 3 4 5 6 7 8

No.	Item	Specifications	Symbol
(1)		Techman Series	
(2)	Model Type	TM20	4
(3)	Power Source	AC	0
		DC	1
(4)	Integrated Camera	Standard	0
		X Model (no camera)	1
(5)(6)	Arm Length	1300	13
(7)	Option	Standard	0
		Semi	1
		Fieldbus	2
(8)	Cable Length	Standard Length (1.5 m / 3 m) ^{*1}	1
		Extended Length (12m) ^{*2}	2

*1 A 1.5 meter cable is standard for DC models and a 3 meter cable is standard for AC models.
*2 A 12 meter cable is available for all AC models.

Items Included with a TM20 Robot System

Item	Robot	Cable	Robot Stick	Control Box	Calibration Plates	I/O Cables	Landmark	Ground wire	Jumper Wire	Power cable	SEMI Switch	SEMI ESTOP Cable
Description	TM20	3 meter cable for AC unit and 1.5 meter cable for DC unit	Hand control to move robot	Robot Control Box	Large and small. Not with X model robots	1 m	Not with X model robots	3 m	3 cm	For Control Box (3 cable: B, G, F) 1.8 m	SEMI Emergency OFF, SEMI robots only	SEMI robots only, 3 m
Quantity	1	1	1	1	2	2	2	2	2	1	1	1

Specifications

Product Name		TM20		TM20X	
Power Source		AC	DC	AC	DC
Weight (kg)		33		33	
Controller Weight (kg)		14.1			
Max Payload (kg)		20			
Reach (mm)		1300			
Mounting		Wall, Table, Ceiling			
Average Speed (m/s)		1.1			
Joint Range	Joint 1	±270°		±360°	
	Joint 2, 4, 5	±180°		±360°	
	Joint 3	±166°			
	Joint 6	±270°		±360°	
Joint Speeds	Joint 1, 2	90°/s			
	Joint 3	120°/s			
	Joint 4	150°/s			
	Joint 5	180°/s			
	Joint 6	225°/s			
Repeatability (mm)		±0.1			
Ingress Protection		IP54 (robot arm), IP32 (control box), IP40 (robot stick)			
Cleanroom Class		ISO Class 3			
Operating Temperature and Humidity		0 to 50°C, 85% max. (with no condensation)			
Storage Temperature and Humidity		-20 to 60°C, 75% max. (with no condensation)			
Operating and Storage Environment		No corrosive gases or exposure to water-soluble cutting oil.			
Motor Power Supply		100 to 240 VAC, 50/60 Hz	24 to 60 VDC	100 to 240 VAC, 50/60 Hz	24 to 60 VDC
Robot Arm Cable Length (m)		3 or 12	1.5	3 or 12	1.5
I/O Ports	Control Box	Digital In: 16, Digital Out: 16 Analog In: 2, Analog Out: 1			
	Tool	Digital In: 4, Digital Out: 4 Analog In: 1, Analog Out: 0			
I/O Interface		COM: 3, HDMI: 1, LAN: 3, USB2.0: 4, USB3.0: 2			
Communication		RS232, Ethernet (master), Modbus TCP/RTU (master & slave), PROFINET (optional), EtherNet/IP (optional)			
I/O Power Supply		24 VDC 2.0 A (control box) / 24 VDC 1.5 A (tool)			
Programming Environment		TMflow, flowchart based			
Integrated Camera Available		5 MP, color		None	
SEMI S2 Certified ^{*1} Available		No	Yes	No	No
Fieldbus Available		EtherNet/IP, PROFINET			

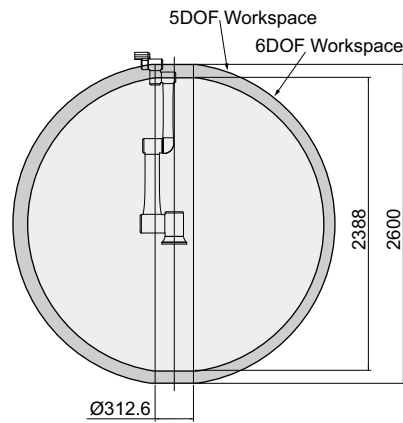
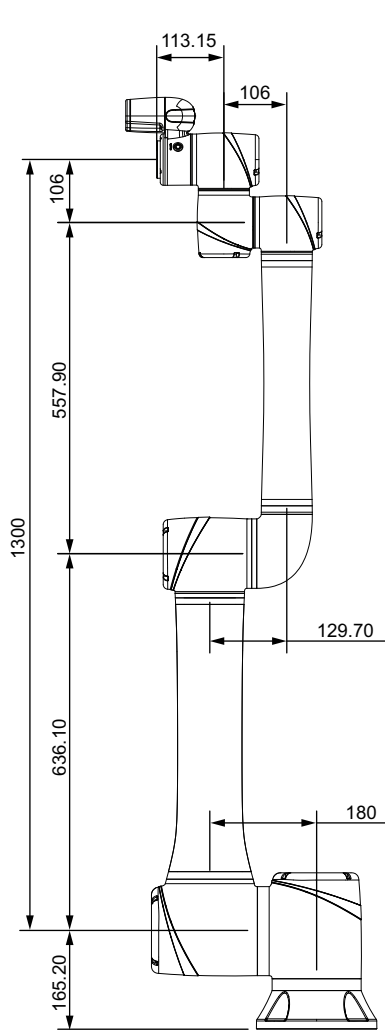
*1 SEMI (Semiconductor Equipment and Materials International) is the central global network of manufacturers of micro and nano electronics that issues safety guidelines. SEMI S2 is the most well-known standard in semiconductor manufacturing equipment for Environmental, Health, and Safety (EHS).

Dimensions

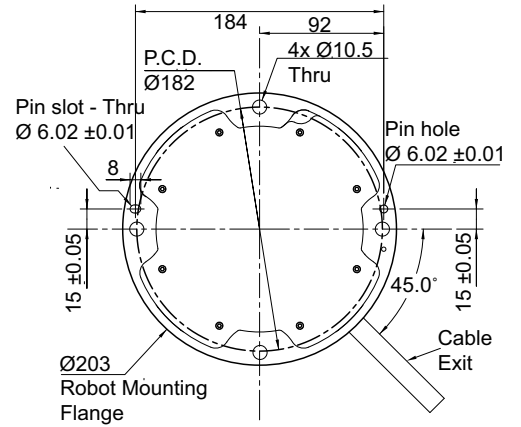
(Unit: mm)

TM20/20X

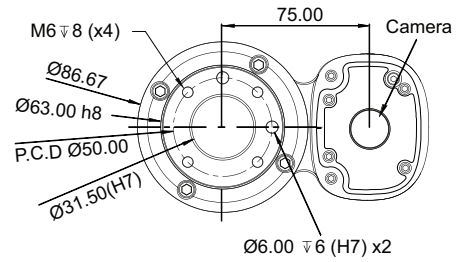
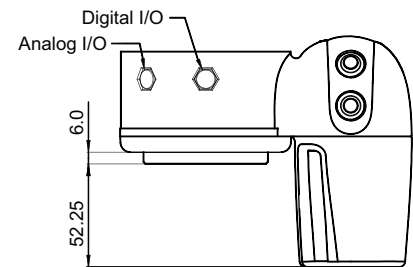
Workspace Side View



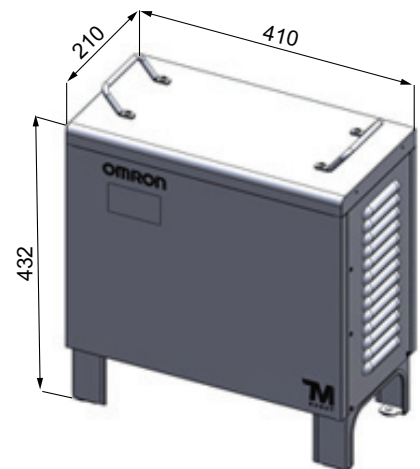
Footprint



Flange












Control Box



Accessories & Software

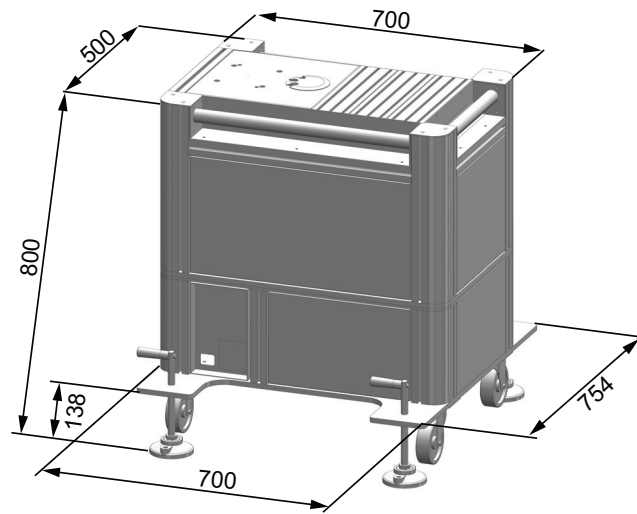
Accessories

Appearance	Product Name	Description	Remarks	Part Number
	Landmark	Robot positioning tool as a reference to the environment.	Two included with purchase of a robot. Not included with X model robots	RT6-A000021
	Mobile Workstation (MWS)	MWS is a convenient tool for users to mount the cobot arm on work surface, and store the control box safely within. Users can easily move the MWS with the cobot to different work cells.	Compatible with OMRON TM5-700, TM5-900, TM5S and TM7S	RT6-A000010
	Robot stand	Similar to MWS, the robot stand can be easily moved with the cobot to different work stations.	Compatible with OMRON TM5-700, TM5-900, TM5S and TM7S	RT6-A000009
	SSD with cable	128 GB solid state hard drive.	SATA cable included. Recommended for external cameras image logging.	RT6-A000012
	Kit, calibration set with additional pin	Toolkit for teaching a precise tool center point (TCP) that can be used for manual workspace calibration within TMvision.	Required for TCP and manual vision calibration.	RT6-A000002
	Robot stick stand	Mounting fixture for the robot stick.	Can be used on desktops, walls, and MWS.	RT6-A000000
	Polarizer Light Module	Improves the reflection caused by the robot's own light source on the surface of highly reflective objects.	For TM5/12/14/16/20 models with HW 3.2 or above.	RT6-A000022
	Air Filter (ROHS)	Replacement air filter for the control box.	The filter must be changed regularly to maintain efficiency. The replacement procedure can be found in the Hardware Installation Manual.	19936-443F
	Teach Pendant	A handheld operating teach pendant. 10.1 inch WXGA resolution panel.	NexCobot Teach Pendant model TP-100-1.	RT6-A000020

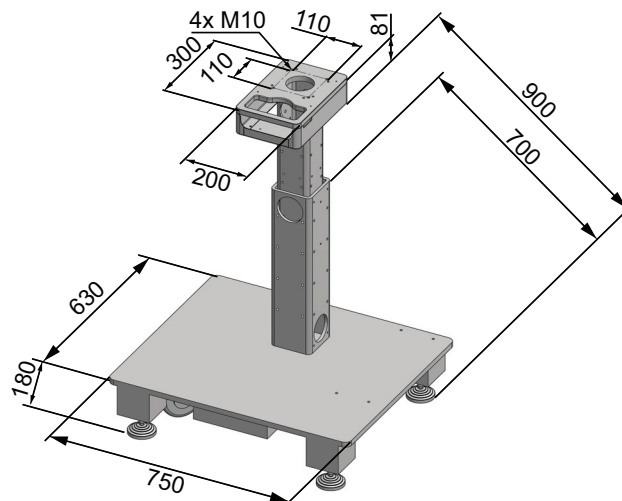
Software

Product Name	Add-On Product Names	Remarks	Part Number
TMflow	N/A	Software required to control the cobot. Free download	N/A
Super Software Dongle	USB dongles with below software licenses		RT6-A000026
	TM Identify & Measure	License, add-on to TMflow. Includes: identification of pose variation, specific color area size, subtract reference image, line/circle burr, counting and gauge.	
	TM External Vision	License, add-on to TMflow. Required when using eye-to-hand cameras.	
	TM OCR	License, add-on to TMflow. Includes: Text OCR and Number OCR.	
	TMflow Editor	License, provides a convenient way to open and edit projects online.	
	TMflow Editor - AOI	License, add-on to TMflow Editor. Enables TMflow Editor to offline edit a TMflow project that includes AOI version.	
TMStudio Palletizing Wizard Export, Software Dongle		License, TMStudio Palletizing Wizard Export Software. Includes 1 USB Dongle.	RT6-S100008

Mobile Work Station (MWS)



Robot Stand



Related Manuals

Cat. No.	Title
I623	TM5 Regular Payload Series Hardware Installation Manual
I624	TM12 & TM14 Medium & Heavy Payload Series Hardware Installation Manual
I678	TM16 & TM20 Series Hardware Installation Manual
I626	Software Manual TMflow
I627	Software Manual TMvision
I628	TM Mobile Work Station Manual
I629	TM Robot Stand Manual
I648	Safety Manual
I664	TM Script Language Manual
I848	Expression Editor and Listen Node Reference Guide

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