

# 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 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	No	12 m	RT6-0007002		
							Yes		RT6-0007022		
		No				No	3 m	RT6-0017001			
						Yes		RT6-0017021			
		Yes			No	RT6-0017031					
					Yes	RT6-0017041					
		DC		Yes	No	Yes	No	No	12 m	RT6-0017002	
								Yes		RT6-0017022	
				No		No	No	1.5 m		RT6-0107001	
							Yes			RT6-0107021	
	No		No	RT6-0107011							
			Yes	RT6-0117001							
	AC	Yes	900 mm	No		No	No	3 m	RT6-0009001		
							Yes		RT6-0009021		
						Yes	No		RT6-0009031		
							Yes		RT6-0009041		
					No	No	No	12 m	RT6-0009002		
							Yes		RT6-0009022		
		No				No	3 m	RT6-0019001			
						Yes		RT6-0019021			
		Yes			No	RT6-0019031					
					Yes	RT6-0019041					
		DC			Yes	No	Yes	No	No	12 m	RT6-0019002
									Yes		RT6-0019022
					No		No	No	1.5 m		RT6-0109001
								Yes			RT6-0109021
					No			No		RT6-0109011	
								Yes		RT6-0119001	
		No			No	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
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							

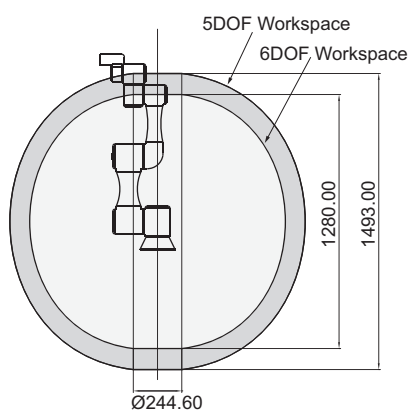
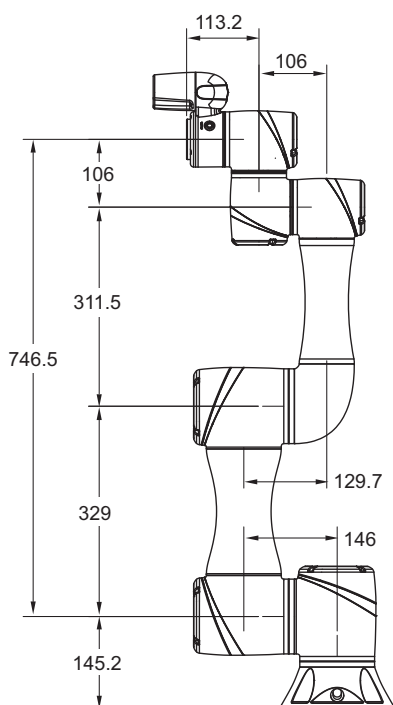
- \*1. If water-soluble cutting oil is present, use a protective sleeve to prevent damage to the robot housing. OMRON offers enhanced joint covers for these applications. Contact your local OMRON representative for more information.
- \*2. SEMI (Semiconductor Equipment and Materials International) is 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

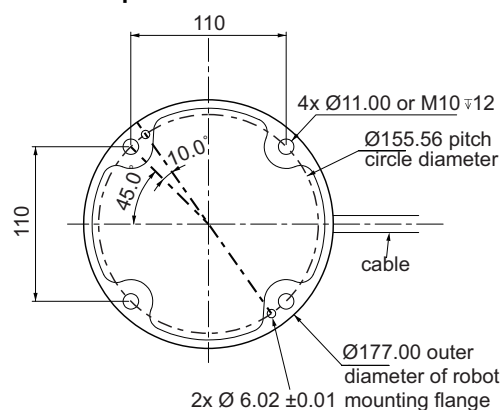
(Unit: mm)

TM5-700

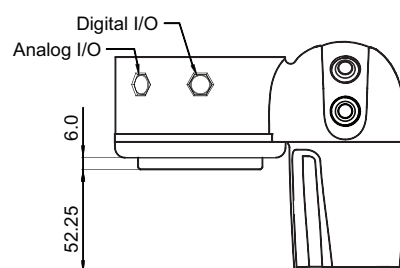
Workspace Side View



Footprint

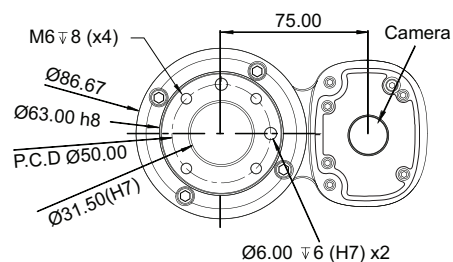
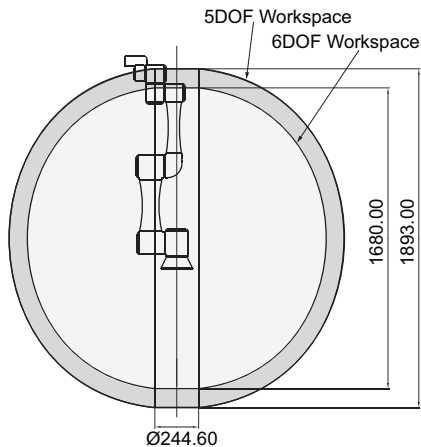
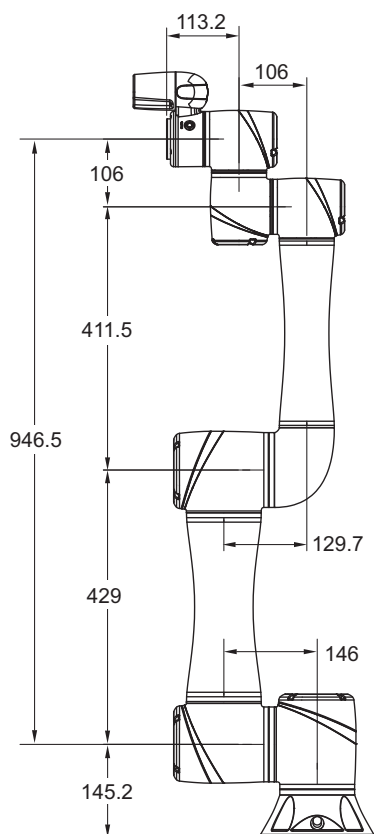


Flange

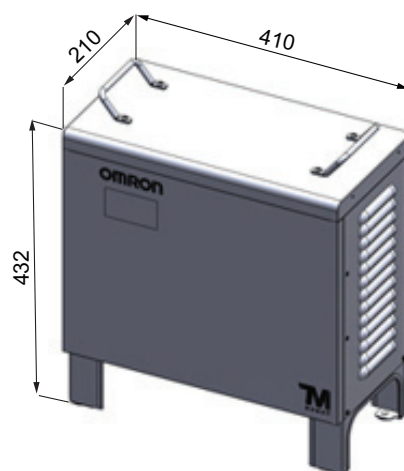


TM5-900

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.
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- TMvision and Landmark allow truly flexible, fast changeover.
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- 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).



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	No	3 m	RT6-1011301	
							Yes		RT6-1011321	
	DC	Yes		No		Yes	No		12 m	RT6-1011331
							Yes			RT6-1011341
					No	No	1.5 m	RT6-1011302		
						Yes		RT6-1011322		
		Yes			No	No	1.5 m	RT6-1101301		
						Yes		RT6-1101321		
						No		RT6-1101311		
						Yes		RT6-1111301		
TM14	AC	Yes	No	No	No	3 m	RT6-2001101			
					Yes		RT6-2001121			
				Yes	No		RT6-2001131			
					Yes		RT6-2001141			
		No		No	No	12 m	RT6-2001102			
					Yes		RT6-2001122			
				Yes	No	No	3 m	RT6-2011101		
						Yes		RT6-2011121		
	DC	Yes	No		Yes	No		12 m	RT6-2011131	
						Yes			RT6-2011141	
				No	No	1.5 m	RT6-2011102			
					Yes		RT6-2011122			
		Yes		No	No	1.5 m	RT6-2101101			
					Yes		RT6-2101121			
					No		RT6-2101111			
					Yes		RT6-2111101			

\* 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	
Power Source		AC	DC	AC	DC	AC	DC	AC	DC
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
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.

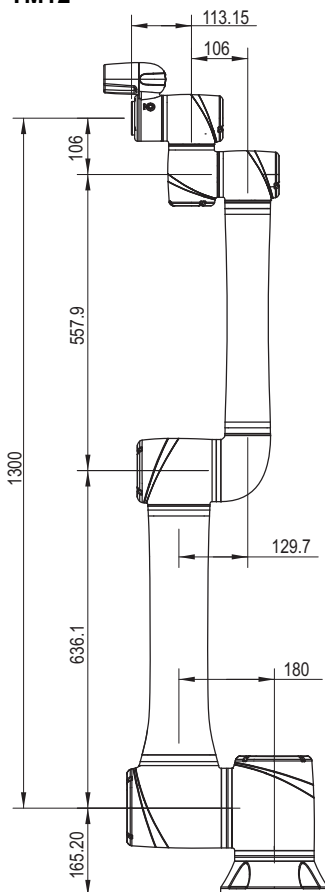
\*2. SEMI (Semiconductor Equipment and Materials International) is the central global network of manufacturers of micro and nano electronics that issues safety guidelines. SEMI S2 is the most well-known standard in semiconductor manufacturing equipment for Environmental, Health, and Safety (EHS).

\*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.

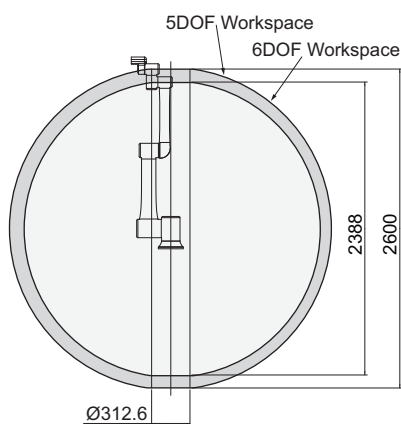
# Dimensions

(Unit: mm)

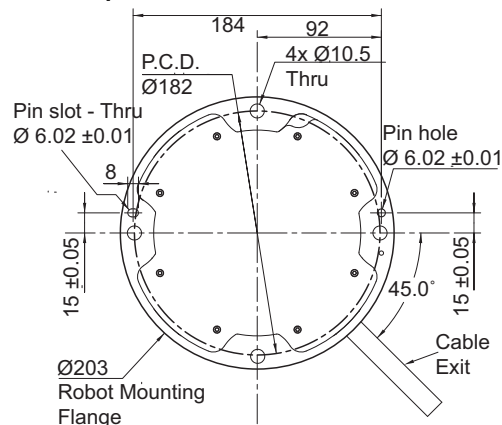
## TM12



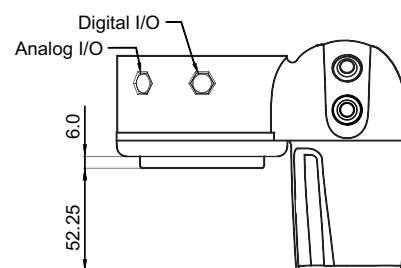
## Workspace Side View



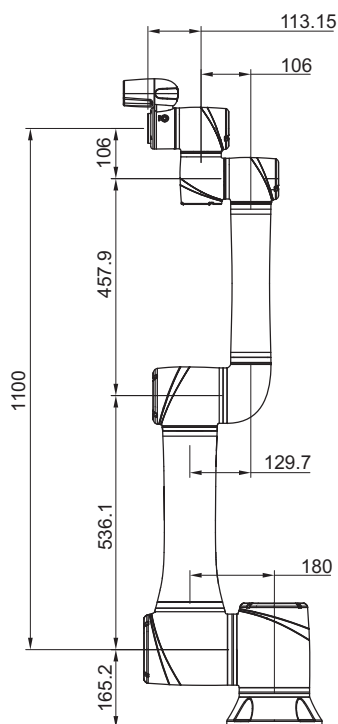
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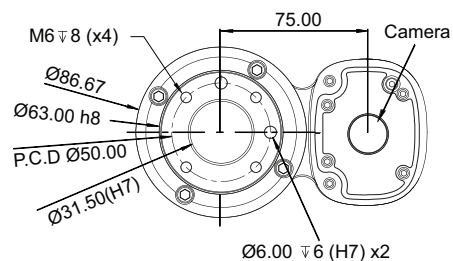
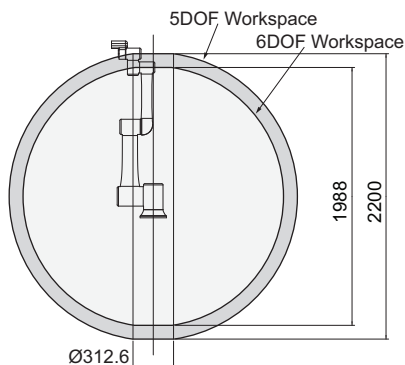
## Flange



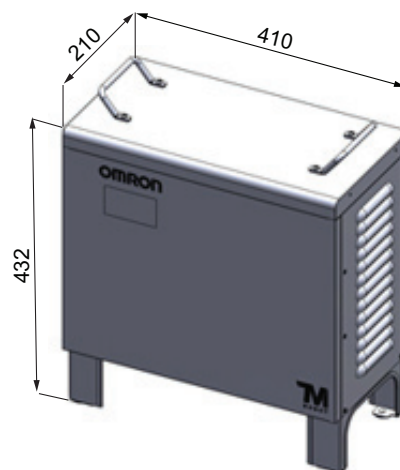
## TM14



## Workspace Side View



## Control Box



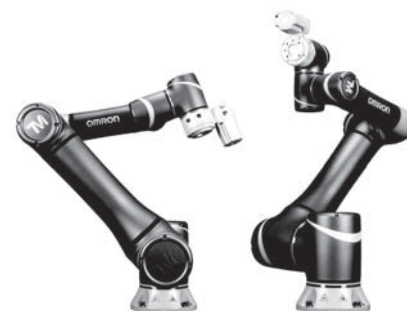


# Collaborative Robots

# 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					RT6-3019001
		Yes			Yes		RT6-3009021
		No					RT6-3019021
	DC	Yes			No	1.5 m	RT6-3109001
		No					RT6-3119001
		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.

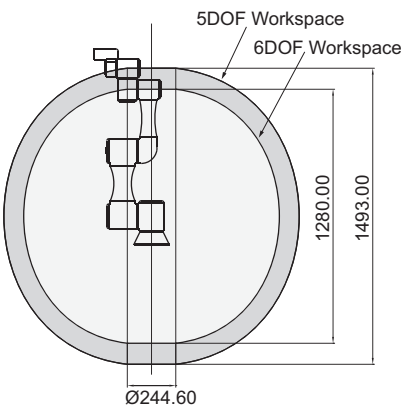
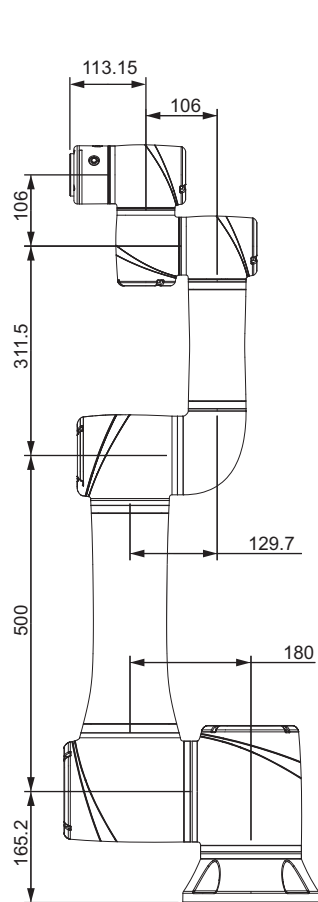
\*2. SEMI (Semiconductor Equipment and Materials International) is the central global network of manufacturers of micro and nano electronics that issues safety guidelines. SEMI S2 is the most well-known standard in semiconductor manufacturing equipment for Environmental, Health, and Safety (EHS).

# Dimensions

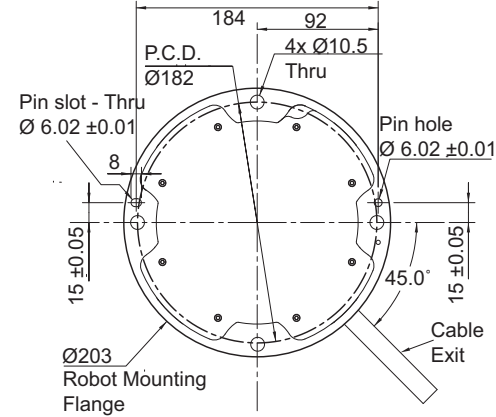
(Unit: mm)

## TM16

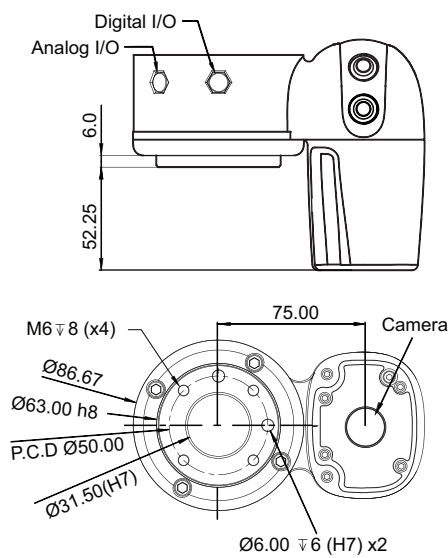
### Workspace Side View



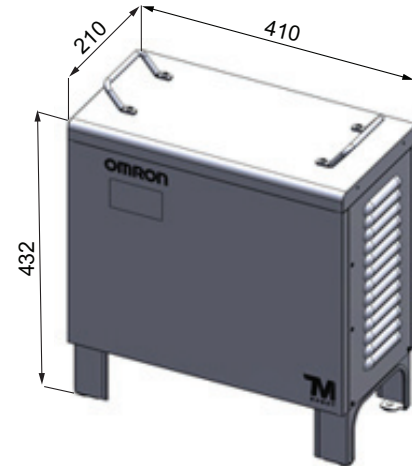
### Footprint



### 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	Yes	1.5 m	RT6-4101301
				Yes			RT6-4101321
				No			RT6-4101311
				Yes			RT6-4101351
		No		No	No		RT6-4111301
				Yes			RT6-4111321
				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).

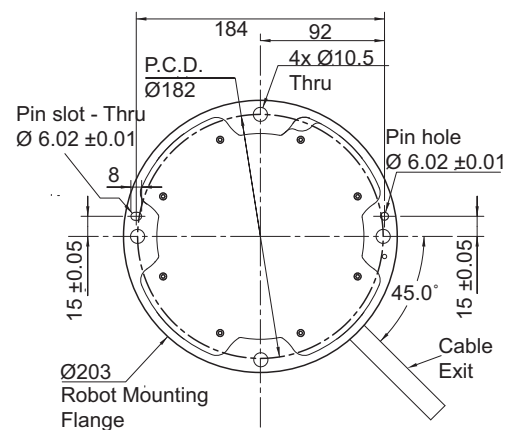
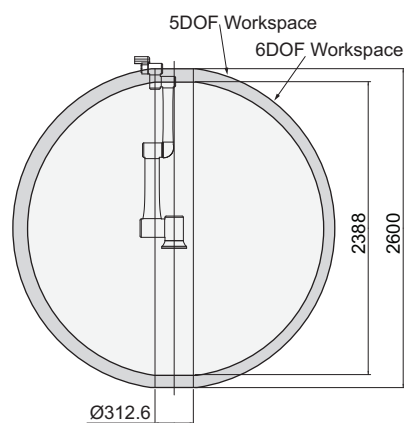
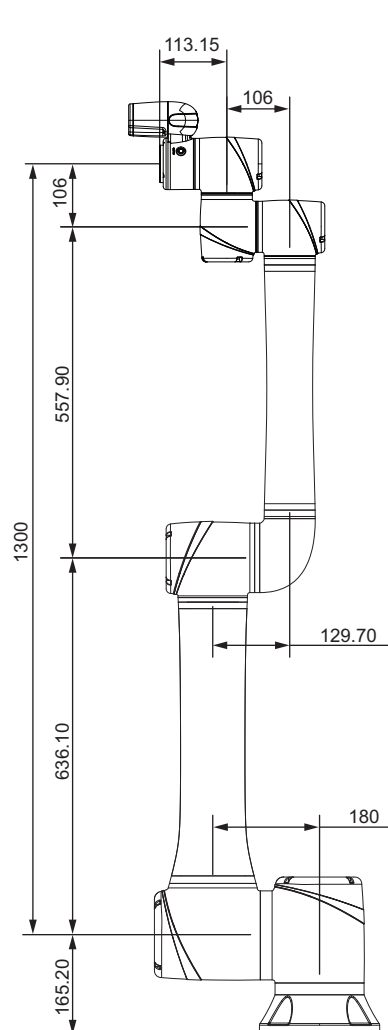
# Dimensions

(Unit: mm)

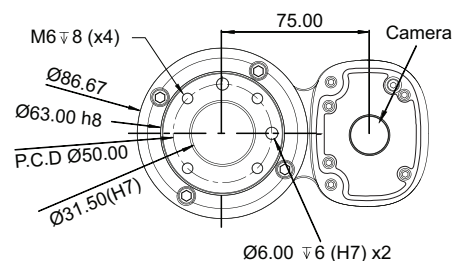
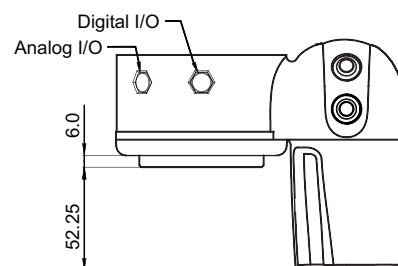
TM20/20X

Workspace Side View

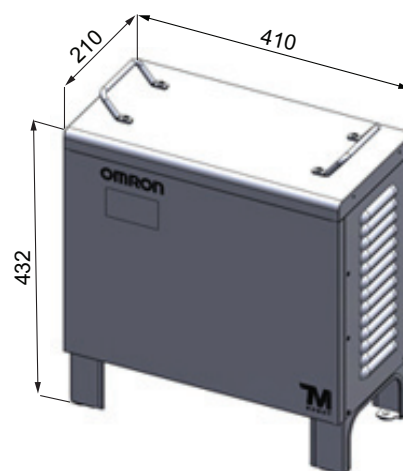
Footprint



Flange












Control Box



# Accessories & Software

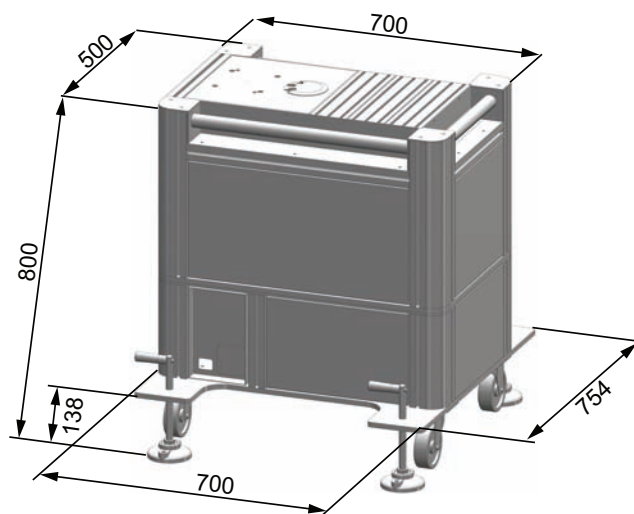
## Accessories

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

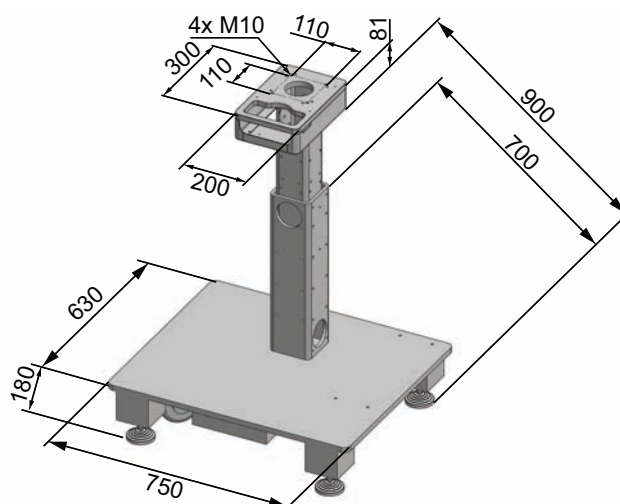
## Software

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

[illegible]

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