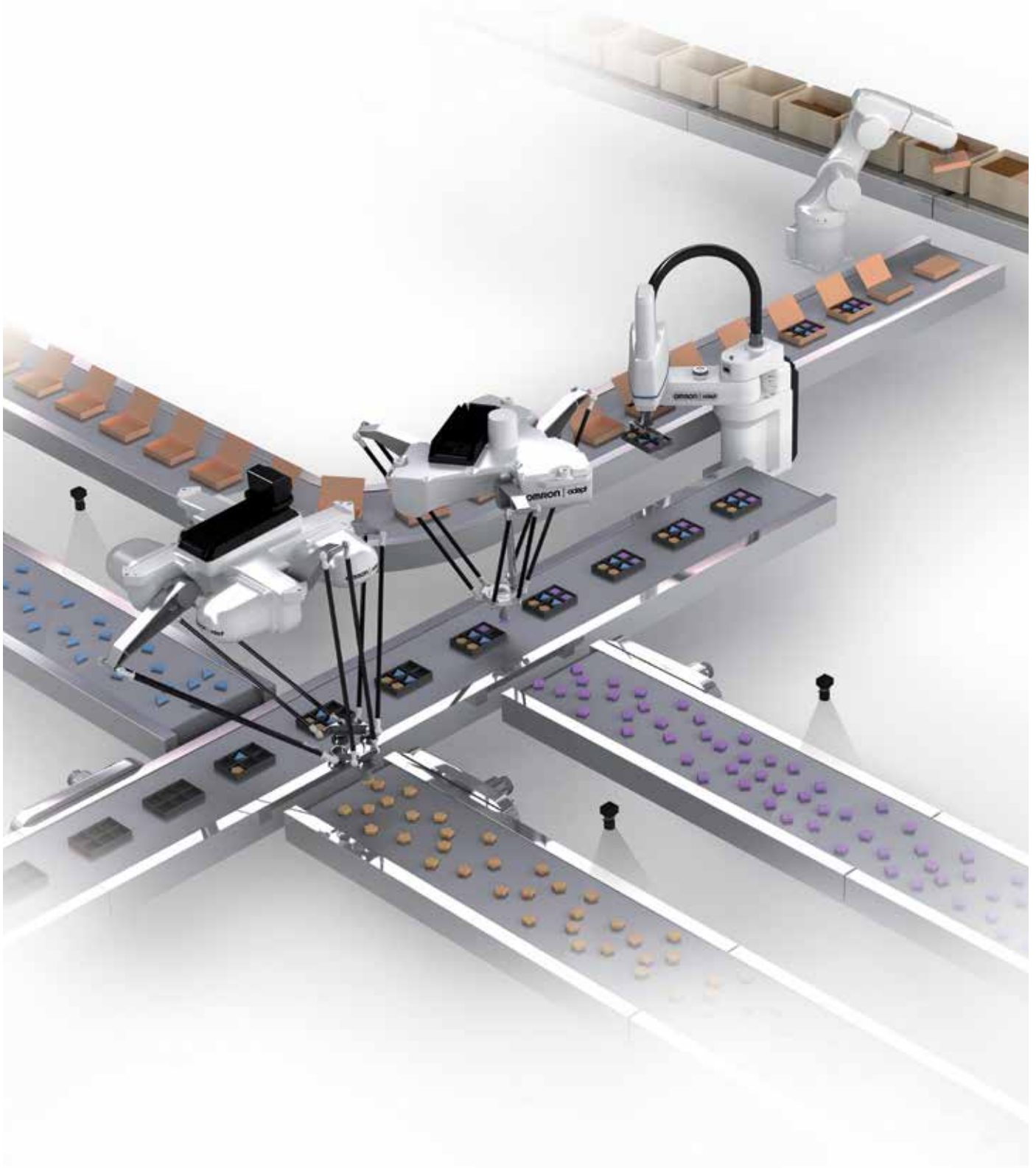


Industrial Robot Solutions

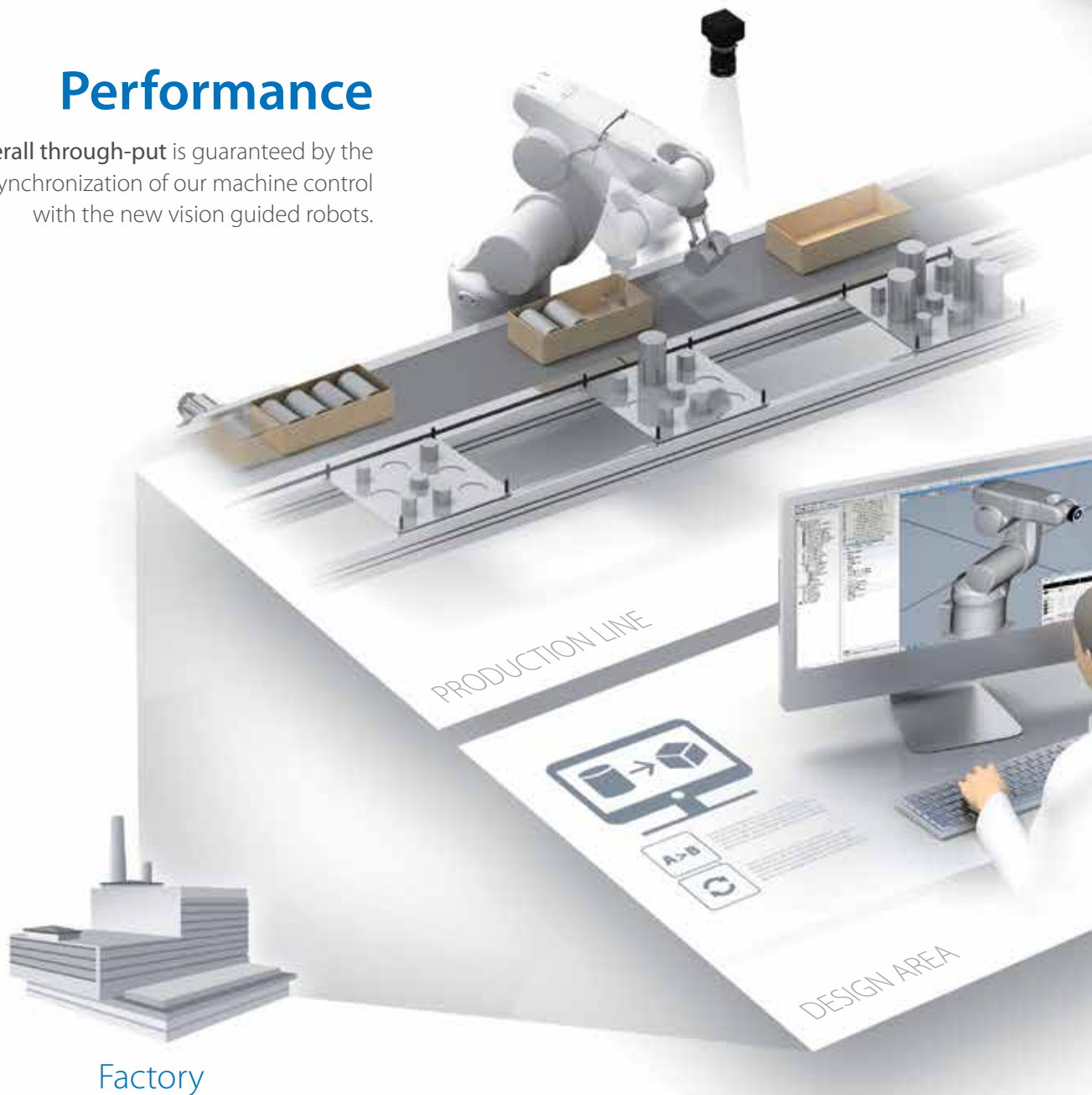


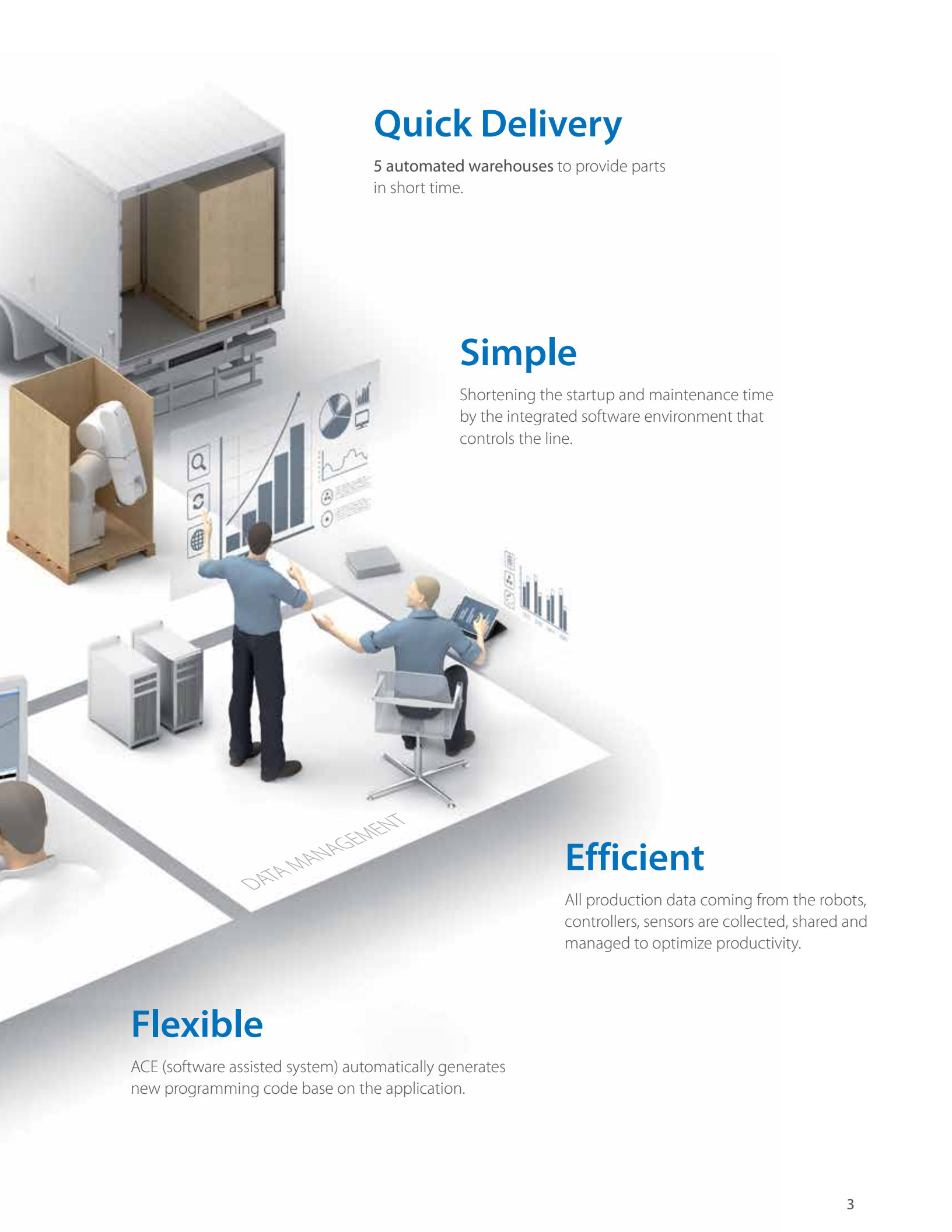
Omron's 5 benefits

The new Omron Robotic Automation solution enhances the most demanding manufacturing lines providing **5 main benefits**

Performance

Overall through-put is guaranteed by the synchronization of our machine control with the new vision guided robots.



An isometric illustration showing a white delivery truck with its back open, revealing a large cardboard box on a pallet. To the left, a robotic arm is visible inside a wooden crate. In the center, two men are interacting with a large, curved digital display showing various charts and graphs. One man is standing and pointing at the screen, while the other is sitting in a chair, also pointing. The floor is marked with the text 'DATA MANAGEMENT'.

Quick Delivery

5 automated warehouses to provide parts in short time.

Simple

Shortening the startup and maintenance time by the integrated software environment that controls the line.

Efficient

All production data coming from the robots, controllers, sensors are collected, shared and managed to optimize productivity.

Flexible

ACE (software assisted system) automatically generates new programming code base on the application.

Industrial robots - 49 models in 3 categories - provide unique solutions

Manufacturing site innovation by using robots for various applications

Omron offers robotic automation solutions for applications from cutting-edge production facilities to manual processes by using our wide variety of control devices and integrating robotics into automation.

Parallel robots

The Hornet and Quattro are parallel robots ideal for use in the food and beverage, pharmaceutical, and healthcare industries. The Quattro is a four-axis parallel robot with a high payload capacity that achieves high speed and high precision.

Feature

The servo amplifier and controller are fully embedded into the robot, reducing wiring and saving valuable floor space



Hornet 565
Quattro 650/800



Cobra 350
eCobra 600/800
eCobra 800 Inverted

SCARA robots

High-performance four-axis SCARA robots are ideal for mechanical assembly, material handling, packaging, machine tending, and screw driving. Floor or ceiling mounting models are available.



Viper 650/850

Articulated robots

Six-axis articulated robots are ideal for mechanical assembly, material handling, packaging, and palletizing.



Automation Control Environment (ACE)

All-in-one software features a simulation function, providing an effective way to deploy applications. ACE provides a host of innovative features that allow you to increase productivity while streamlining configuration setup.

Robot Lineup

Industry			Recommended process and application	Parallel robot	
Food & Beverage	Digital	Automotive			
				Hornet 565	Quattro 650/800
			Primary packing	•	•
			Secondary packing	•	•
			Aligning, packaging	•	•
			Palletizing		
			Screw Fastening		
			General assembling		
			Deburring and polishing		
			Dispensing		
			Measuring, inspection, testing		•
			Machine Tending		
			Dispensing		
			Measuring, inspection, testing		
			Material handling		
			Mounting	Ceiling	
			Payload capacity	3 kg (8kg *1)	6kg (15kg *2)
			Radius	565 mm	650 to 800 mm
			Reach	---	---
			Position repeatability	±0.10mm	±0.10mm

*1. without rotation axis

*2. Quattro650 using P30

SCARA robot			Articulated robot
			
Cobra 350	eCobra 600/800	eCobra 800 Inverted	Viper 650/850
•	•	•	
•	•	•	•
	•	•	•
•	•	•	•
•	•	•	•
•	•	•	•
•	•	•	•
•	•	•	•
•	•	•	•
•	•	•	•
•	•	•	•
Table / Floor		Ceiling	Table/Floor/Ceiling
5 kg	5.5 kg	5.5 kg	5 kg
---	---	---	---
350 mm	600 to 800 mm	800 mm	653 to 855 mm
±0.015mm	±0.017mm	±0.017mm	±0.02 to 0.03mm

Sysmac is a trademark or registered trademark of OMRON Corporation in Japan and other countries for OMRON factory automation products.

Intel is trademarks of Intel Corporation in the U.S. and/or other countries.

Windows is either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Other company names and product names in this document are the trademarks or registered trademarks of their respective companies.

The product photographs and figures that are used in this catalog may vary somewhat from the actual products.

Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation.

Hornet 565

Parallel robot ideal for use in the food and beverage, pharmaceutical, and healthcare industries

- ePLC connectivity to control the robot through the Standard IEC61131-3 programming language using Omron's NJ/NX Machine automation controller
- Amplifier & Controller are built into the robot, reducing footprint & Cabling
- High payload to support multiple tools
- Maximum working diameter 1,130 mm
- Working height 425 mm
- Maximum payload 8 kg
- Protection IP65^{*2}
- Available in 3 & 4 axis of motion



Specifications

Product name		Hornet	
		565	
		Size	Type
		3 axes	4 axes
Model		1720□-45600	1720□-45604
Number of axes		3	4
Mounting		Ceiling	
Working volume	X,Y axis (stroke)	1130 mm	
	Z axis (stroke)	425 mm	
	theta axis (rotation angle)	-	±360°
Maximum Payload		8 kg	3 kg
Repeatability		±0.10 mm	
Cycle times, sustained (at 20°C ambient)	Payload 0.1 kg	0.32 s ^{*1}	0.35 s ^{*1}
	Payload 1.0 kg	0.34 s ^{*1}	0.37 s ^{*1}
	Payload 3.0 kg	0.38 s ^{*1}	0.42 s ^{*1}
Power Requirements		24 VDC: 6 A 200 to 240 VAC: 10 A, single-phase	
Protection	Base	IP65 ^{*2}	
	Platform	IP67	
Environment Requirements	Ambient Temperature	1 to 40°C	
	Humidity Range	5 to 90% (non-condensing)	
Weight		52 kg	
Basic configuration	Controller	eAIB	
	On-board I/O (Input/Output)	12/12	
	Conveyor tracking input	2	
	RS-232C serial communications port	1	
	Programming environment	ACE, PackXpert, PLC	
	ePLC Connect	Yes	
Connectable controller	ePLC I/O	Yes	
		SmartController EX, NJ/NX Series ^{*3}	

^{*1} Adept cycle, in mm (25/305/25)

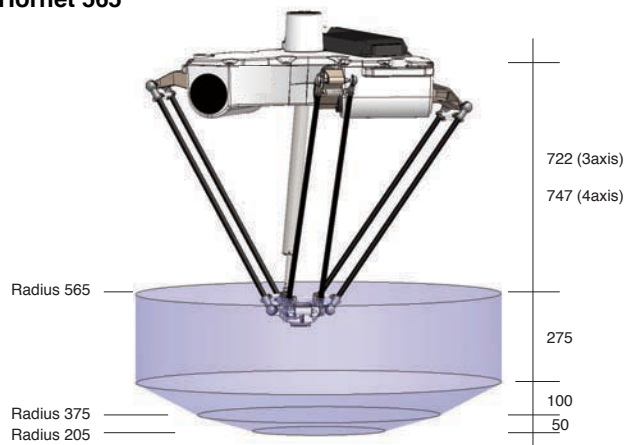
^{*2} IP67: arms and platform, IP65:underside of robot, IP20: topside of robot, IP65:topside of robot (with option cover)

^{*3} NJ/NX Series with ePLC Connect

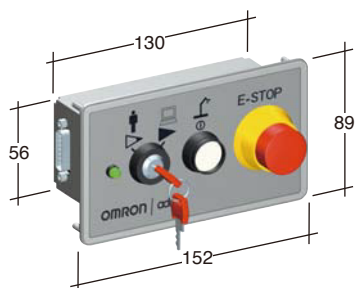
Dimensions

(Unit: mm)

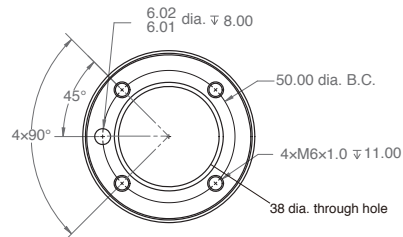
Hornet 565



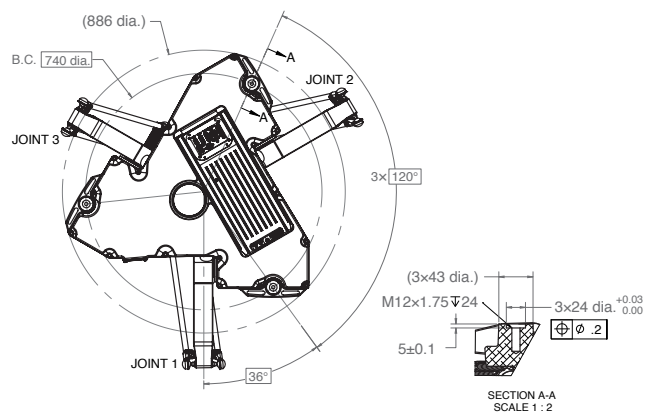
Front panel



Flange



Footprint



Robot Parts Code and Included Accessories

Type	Hornet	Hornet Add-On
Hornet 565 3Axis	17201-45600	17203-45600
Hornet 565 4Axis	17201-45604	17203-45604
Overview	Robot eAIB with fully integrated controller	Robot, eAIB & required connection cables to connect EX controller
Purpose	Used as a standalone robot	Includes cables & licenses to connect to an EX controller
Accessories Included with Bundle	• XSYS cable with jumpers, 2m/6ft (13323-000) • Front panel kit (90356-10358)	• XSYS cable with jumpers, 2m/6ft (13323-000) • XSYS cable, 5m/15 ft (11585-000) • DB9 splitter (00411-000) • 1394 latch cable, 5m/15 ft, 13632-045) • eV+ license to connect to controller (14529-103)

Quattro 650H/HS

High speed & Accuracy parallel robot

- ePLC connectivity to control the robot through the Standard IEC61131-3 programming language using Omron's NJ/NX Machine automation controller
- Four-axis arm evenly distributes the load on the robot
- High payload to support multiple tools
- Designed for high speed pick & place
- USDA Accepted for primary food handling (HS type)
- Maximum working diameter 1,300 mm
- Working height 500 mm
- Maximum payload 15 kg
- Protection IP66 (HS type)
- Available in 3 & 4 axis of motion



Specifications

Product name		Quattro	
		650	
Size			
Type		H	HS
Model		1720□-2600□	1720□-2601□
Number of axes		4	4
Mounting		Ceiling	
Working volume	X,Y axis (stroke)	1300 mm	
	Z axis (stroke)	500 mm	
	theta axis (rotation angle)	0° (fixed) (P30)	
		±46.25° (P31)	
		±92.5° (P32)	
±185° (P34)			
Maximum Payload		6 kg (P30: 15kg)	
Repeatability		±0.10mm	
Cycle times, sustained (at 20°C ambient)	Payload 0.1 kg	0.30s ⁻¹ , 0.46 s ⁻²	
	Payload 1.0 kg	0.36s ⁻¹ , 0.47 s ⁻²	
	Payload 2.0 kg	0.37s ⁻¹ , 0.52 s ⁻²	
	Payload 4.0 kg	0.41s ⁻¹ , 0.58 s ⁻²	
	Payload 6.0 kg	0.43s ⁻¹ , 0.61 s ⁻²	
Power Requirements		24 VDC: 11 A (eAIB, SmartController) 200 to 240 VAC: 10 A, single-phase	
Protection	Base	IP65 (with optional cable sealing kit)	IP66
	Tooling	IP67	IP67
Environment Requirements	Ambient Temperature	1 to 40°C	
	Humidity Range	5 to 90% (non-condensing)	
Weight		117 kg	
USDA-Accepted for meat and poultry processing		---	Yes
Basic configuration	Controller	SmartController EX	
	On-board I/O (Input/Output)	12/8	
	Conveyor tracking input	4	
	RS-232C serial communications port	1	
	Programming environment	ACE, PackXpert, PLC	
	ePLC Connect	Yes	
	ePLC I/O	Yes	
Connectable controller		SmartController EX, NJ/NX Series ³	

¹ Adept cycle, in mm (25/305/25)

² Extended cycle, in mm (25/700/25)

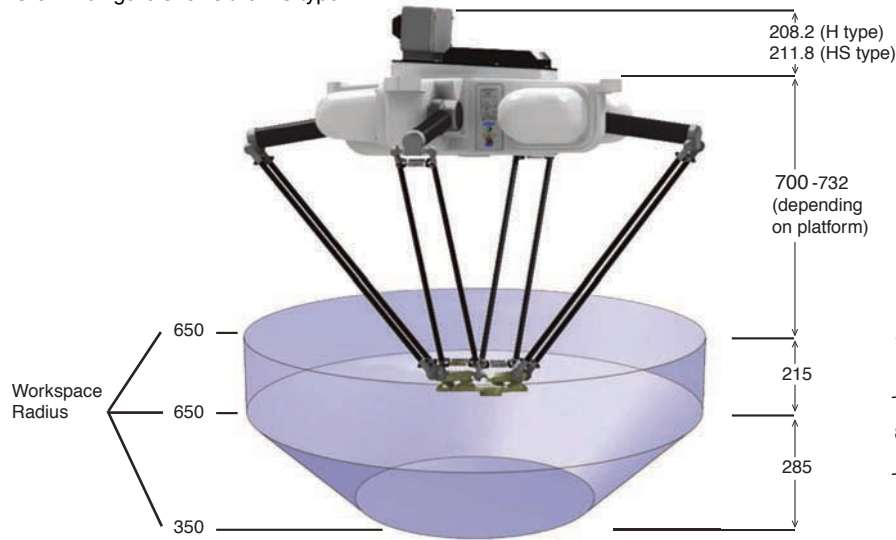
³ NJ/NX Series with ePLC Connect

Dimensions

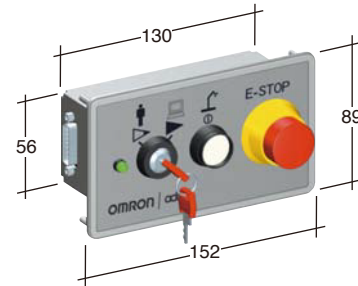
(Unit: mm)

Quattro 650H/HS

Note: The figure shows the HS type.



Front panel



SmartController EX



Four choices of platform offer different ranges of rotation.

Appearance				
Type	P30	P31	P32	P34
Rotation angle	No rotation	$\pm 46.25^\circ$	$\pm 92.5^\circ$	$\pm 185^\circ$
Maximum Payload	H: 15 Kg, HS: 12 Kg	H: 6 Kg, HS: 3 Kg	H: 6 Kg, HS: 3 Kg	H: 6 Kg, HS: 3 Kg

Note: The platform appearances of the H type are shown above. The platform of the HS type is made of stainless steel.

Robot Parts Code and Included Accessories

Type	Quattro with EX Controller	Quattro Add-On
Quattro 650H P30	17204-26000	17203-26000
Quattro 650H P31	17204-26001	17203-26001
Quattro 650H P32	17204-26002	17203-26002
Quattro 650H P34	17204-26004	17203-26004
Quattro 650HS P30	17204-26010	17203-26010
Quattro 650HS P31	17204-26011	17203-26011
Quattro 650HS P32	17204-26012	17203-26012
Quattro 650HS P34	17204-26014	17203-26014
Overview	Robot + eAIB+ SmartController EX + required connection cables	Robot eAIB, required connection cables for EX controller
Purpose	Used as a standalone robot	Includes cables & licenses to connect to an EX controller
Accessories Included with Bundle	• XSYS cable with jumpers, 2m/6ft (13323-000) • SmartController EX (09200-000) • XSYS cable, 5m/15 ft (11585-000) • 1394 latch cable, 5m/15 ft, 13632-045) • Front panel kit (90356-10358) • eV+ license to connect to controller (14529-103)	• XSYS cable with jumpers, 2m/6ft (13323-000) • XSYS cable, 5m/15 ft (11585-000) • DB9 splitter (00411-000) • 1394 latch cable, 5m/15 ft, 13632-045) • eV+ license to connect to controller (14529-103)

Parallel Robots

Quattro 800H

Parallel robot achieves high speed and high precision

- ePLC connectivity to control the robot through the Standard IEC61131-3 programming language using Omron's NJ/NX Machine automation controller
- Four-axis arm evenly distributes the load on the robot
- High payload to support multiple tools
- Maximum working diameter 1,600 mm
- Working height 500 mm
- Maximum payload 10 kg
- Protection IP65 (with optional cable sealing kit)
- Available in 3 & 4 axis of motion



Specifications

Product name		Quattro
	Size	800
	Type	H
Model		1720□-2630□
Number of axes		4
Mounting		Ceiling
Working volume	X,Y axis (stroke)	1600 mm
	Z axis (stroke)	500 mm
	theta axis (rotation angle)	0° (fixed) (P30)
		±46.25° (P31)
		±92.5° (P32)
		±185° (P34)
Maximum Payload		4 kg (P30:10 kg)
Repeatability		±0.10 mm
Cycle times, sustained (at 20°C ambient)	Payload 0.1 kg	0.33 s ^{*1} , 0.48 s ^{*2}
	Payload 1.0 kg	0.38 s ^{*1} , 0.50 s ^{*2}
	Payload 2.0 kg	0.40 s ^{*1} , 0.55 s ^{*2}
	Payload 4.0 kg	0.45 s ^{*1} , 0.62 s ^{*2}
Power Requirements		24 VDC: 11 A (eAIB, SmartController) 200 to 240 VAC: 10 A, single-phase
Protection	Base	IP65 (with optional cable sealing kit)
	Tooling	IP67
Environment Requirements	Ambient Temperature	1 to 40°C
	Humidity Range	5 to 90% (non-condensing)
Weight		117 kg
Basic configuration	Controller	SmartController EX
	On-board I/O (Input/Output)	12/8
	Conveyor tracking input	4
	RS-232C serial communications port	1
	Programming environment	ACE, PackXpert, PLC
	ePLC Connect	Yes
	ePLC I/O	Yes
Connectable controller		SmartController EX, NJ/NX Series * 3

^{*1} Adept cycle, in mm (25/305/25)

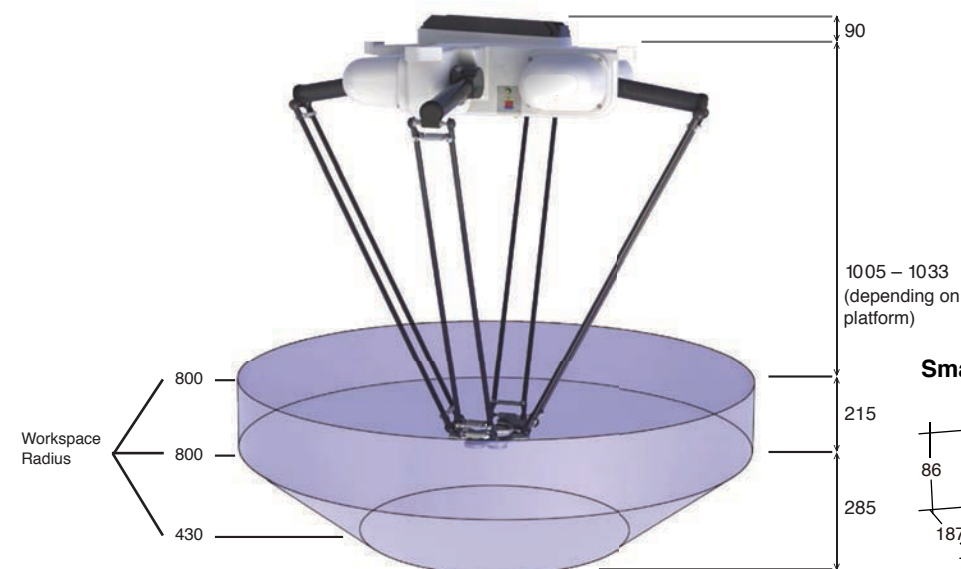
^{*2} Extended cycle, in mm (25/700/25)

^{*3} NJ/NX Series with ePLC Connect

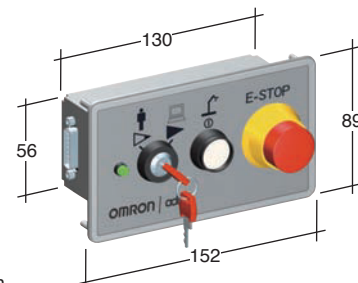
Dimensions

(Unit: mm)

Quattro 800H



Front panel



SmartController EX



Four choices of platform offer different ranges of rotation.

Appearance				
Type	P30	P31	P32	P34
Rotation angle	No rotation	$\pm 46.25^\circ$	$\pm 92.5^\circ$	$\pm 185^\circ$
Maximum Payload	10 Kg	4 Kg	4 Kg	4 Kg

Robot Parts Code and Included Accessories

Type	Quattro with EX Controller	Quattro Add-On
Quattro 800H P30	17204-26300	17203-26300
Quattro 800H P31	17204-26301	17203-26301
Quattro 800H P32	17204-26302	17203-26302
Quattro 800H P34	17204-26304	17203-26304
Overview	Robot eAIB, Smart controller EX	Robot eAIB & Required connection cables for EX Controller
Purpose	Used as a standalone robot	Includes cables & licenses to connect to an EX controller
Accessories Included with Bundle	• XSYS cable with jumpers, 2m/6ft (13323-000) • SmartController EX (09200-000) • XSYS cable, 5m/15 ft (11585-000) • 1394 latch cable, 5m/15 ft, 13632-045) • Front panel kit (90356-10358) • eV+ license to connect to controller (14529-103)	• XSYS cable with jumpers, 2m/6ft (13323-000) • XSYS cable, 5m/15 ft (11585-000) • DB9 splitter (00411-000) • 1394 latch cable, 5m/15 ft, 13632-045) • eV+ license to connect to controller (14529-103)

SCARA Robots

Cobra 350

Small SCARA robot for precision machining, assembly, and material handling

- ePLC connectivity to control the robot through the Standard IEC61131-3 programming language using Omron's NJ/NX Machine automation controller.
- High repeatability for precision assembly
- Compact footprint using the amplifier with a built in controller
- Reach 350 mm
- Maximum payload 5 kg
- Protection IP20
- Cleanroom class 10 option



Specifications

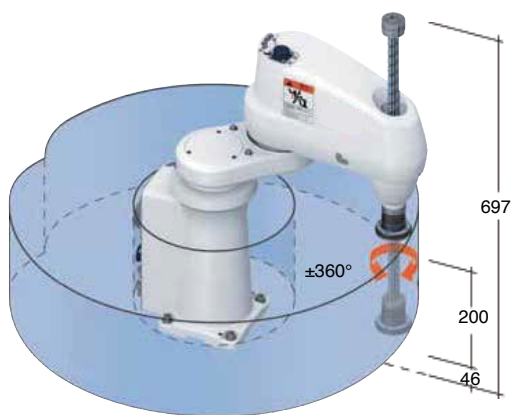
Product name		Cobra
	Size	350
Model		1720□-13000
Number of axes		4
Mounting		table/floor
Reach		350 mm
Maximum Payload		5 kg
Repeatability	XY	±0.015 mm
	Z	±0.01 mm
	Theta	±0.005°
Joint Range	Joint 1	±155°
	Joint 2	±145°
	Joint 3	200 mm
	Joint 4	±360°
Joint Speeds	Joint 1	720°/s
	Joint 2	720°/s
	Joint 3	2000 mm/s
	Joint 4	2400°/s
Power Requirements		24 VDC: 6 A 200 to 240 VAC: 10 A, single-phase
Protection		IP20
Environment Requirements	Ambient Temperature	5 to 40°C
	Humidity Range	5 to 90% (non-condensing)
Weight		20 kg
Basic configuration	Controller	eAIB
	On-board I/O (Input/Output)	12/12
	Conveyor tracking input	2
	RS-232C serial communications port	1
	Programming environment	ACE, PackXpert, PLC
	ePLC Connect	Yes
	ePLC I/O	Yes
Connectable controller		eMotionBlox-40R, SmartController EX, NJ/NX Series *

* NJ/NX Series with ePLC Connect

Dimensions

(Unit: mm)

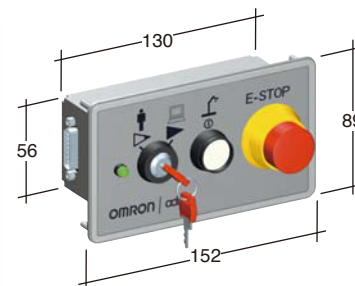
Cobra 350



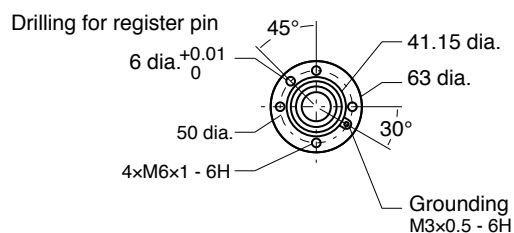
eMotion Blox-40R



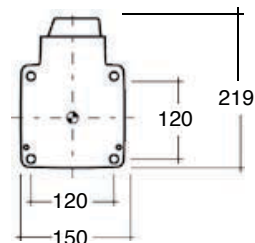
Front panel



Flange



Footprint



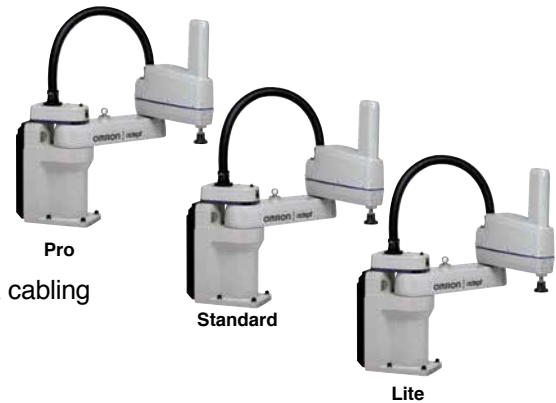
Robot Parts Code and Included Accessories

Type	Cobra 350	Cobra 350 Add-On
Cobra 350	17201-13000	17203-13000
Overview	Robot eMotionBlox amplifier with fully integrated controls	Robot eMotionBlox & required connection cables for EX controller
Purpose	Used as a standalone robot	Includes cables & licenses to connect to an EX controller
Accessories Included with Bundle	• XSYS cable with jumpers, 2m/6ft (13323-000) • Front panel kit (90356-10358)	• XSYS cable with jumpers, 2m/6ft (13323-000) • XSYS cable, 5m/15 ft (11585-000) • DB9 splitter (00411-000) • 1394 latch cable, 5m/15 ft, 13632-045) • eV+ license to connect to controller (14529-103)

eCobra 600 Lite/Standard/Pro

Mid-size SCARA robot for precision machining, assembly, and material handling

- ePLC connectivity to control the robot through the Standard IEC61131-3 programming language using Omron's NJ/NX Machine automation controller
- High repeatability for precision assembly and material handling
- Capable of heavy payloads to handle large tooling
- The amplifier and controller built into the robot the overall footprint & cabling
- Three different performance tiers to address different application complexity and throughput requirements.
- Reach 600 mm
- Maximum payload 5.5 kg
- Cleanroom class 10 option
- Protection IP65 option



Specifications

Product name		eCobra		
		600		
Size				
Type		600 Lite	600 Standard	600 Pro
Model		17000-16000	1710□-16000	1720□-16000
Number of axes		4	4	4
Mounting		table/floor		
Reach		600 mm		
Maximum Payload		5.5 kg		
Repeatability	XY	±0.017 mm		
	Z	±0.003 mm		
	Theta	±0.019°		
Joint Range	Joint 1	±105°		
	Joint 2	±157.5°		
	Joint 3	210 mm		
	Joint 4	±360°		
Inertia Moment (Max.)	Joint 4	450 kg-cm ²		
Joint Speeds	Joint 1	386°/s		
	Joint 2	720°/s		
	Joint 3	1100mm/s		
	Joint 4	1200°/s		
Cycle times (Payload 2.0 kg)	Burst	0.66 s ⁻¹	0.55 s ⁻¹	0.39 s ⁻¹
	Sustained	0.66 s ⁻¹	0.55 s ⁻¹	0.45 s ⁻¹
Power Requirements		24 VDC: 6 A 200 to 240 VAC: 10 A, single-phase		
Protection		IP20		
Environment Requirements	Ambient Temperature	5 to 40°C		
	Humidity Range	5 to 90% (non-condensing)		
Weight		41 kg		
Basic configuration	Controller	eAIB		
	On-board I/O (Input/Output)	12/12		
	Conveyor tracking input	No		
	RS-232C serial communications port	No	1	
	Programming environment	ACE	ACE, PackXpert, PLC	
	ACE Sight	No	Yes	
	ePLC Connect	No	Yes	
	ePLC I/O	No	Yes	
Connectable controller		No	SmartController EX, NJ/NX Series ²	

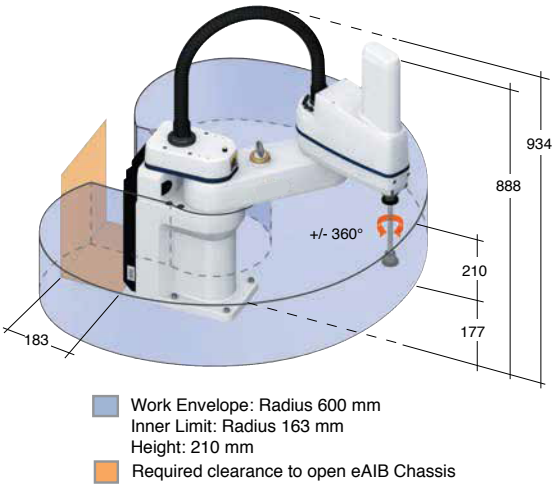
¹ Adept cycle, in mm 25/305/25 (seconds, at 20°C ambient)

² NJ/NX Series with ePLC Connect

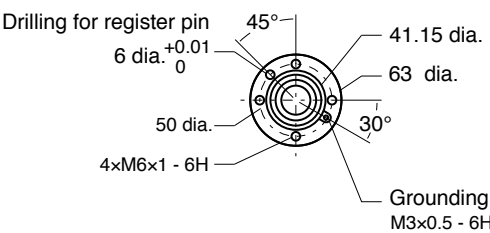
Dimensions

(Unit: mm)

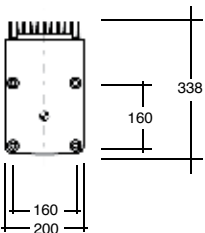
eCobra 600



Flange



Footprint



Front panel



Robot Parts Code and Included Accessories

Type	eCobra	eCobra Add-On
eCobra 600 Lite	17000-16000	---
eCobra 600 Standard	17101-16000	17103-16000
eCobra 600 Pro	17201-16000	17203-16000
Overview	Robot eAIB with fully integrated controls	Robot eAIB with required connections cables for EX controller
Purpose	Used as a standalone robot	Includes cables & licenses to connect to an EX controller
Accessories Included with Bundle	• XSYS cable with jumpers, 2m/6ft (13323-000) • Front panel kit (90356-10358)	• XSYS cable with jumpers, 2m/6ft (13323-000) • XSYS cable, 5m/15 ft (11585-000) • DB9 splitter (00411-000) • 1394 latch cable, 5m/15 ft, 13632-045) • eV+ license to connect to controller (14529-103)

Note: OMRON also provides other types of model. Ask your OMRON sales representative for details.

eCobra 800 Lite/Standard/Pro

Large SCARA robot for precision machining, assembly, and material handling

- ePLC connectivity to control the robot through the Standard IEC61131-3 programming language using Omron's NJ/NX Machine automation controller
- Capable of heavy payloads to handle large tooling
- The amplifier and controller built into the robot reduces the overall footprint & cabling
- Three different performance tiers to address different application complexity and throughput requirements
- Reach 800 mm
- Maximum payload 5.5 kg
- Cleanroom class 10 option
- Protection IP65 option



Specifications

Product name		eCobra		
		800		
Size		800 Lite	800 Standard	800 Pro
Type				
Model		17000-18000	1710□-18000	1720□-18000
Number of axes		4	4	4
Mounting		table/floor		
Reach		800 mm		
Maximum Payload		5.5 kg		
Repeatability	XY	±0.017 mm		
	Z	±0.003 mm		
	Theta	±0.019°		
Joint Range	Joint 1	±105°		
	Joint 2	±157.5°		
	Joint 3	210 mm		
	Joint 4	±360°		
Inertia Moment (Max.)	Joint 4	450 kg-cm ²		
Joint Speeds	Joint 1	386°/s		
	Joint 2	720°/s		
	Joint 3	1100 mm/s		
	Joint 4	1200°/s		
Cycle times (Payload 2.0 kg)	Burst	0.73 s ⁻¹	0.62 s ⁻¹	0.44 s ⁻¹
	Sustained	0.73 s ⁻¹	0.62 s ⁻¹	0.54 s ⁻¹
Power Requirements		24 VDC: 6 A 200 to 240 VAC: 10 A, single-phase		
Protection		IP20 (IP65 option)		
Environment Requirements	Ambient Temperature	5 to 40°C		
	Humidity Range	5 to 90% (non-condensing)		
Weight		43 kg		
Basic configuration	Controller	eAIB		
	On-board I/O (Input/Output)	12/12		
	Conveyor tracking input	No	2	
	RS-232C serial communications port	No	1	
	Programming environment	ACE	ACE, PackXpert, PLC	
	ACE Sight	No	Yes	
	ePLC Connect	No	Yes	
	ePLC I/O	No	Yes	
Connectable controller		No	SmartController EX, NJ/NX Series ²	

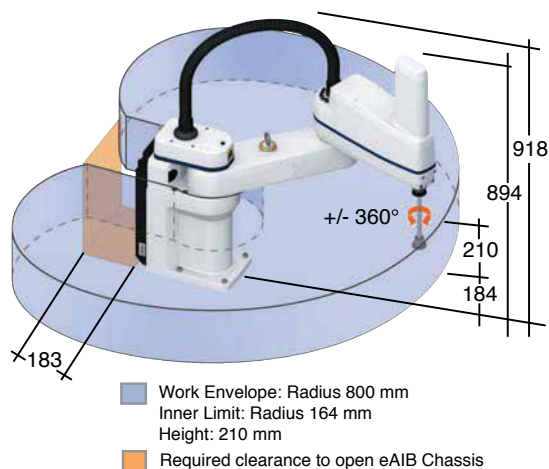
¹ Adept cycle, in mm 25/305/25 (seconds, at 20°C ambient)

² NJ/NX Series with ePLC Connect

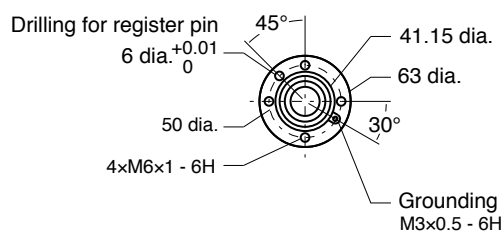
Dimensions

(Unit: mm)

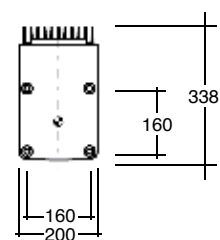
eCobra 800



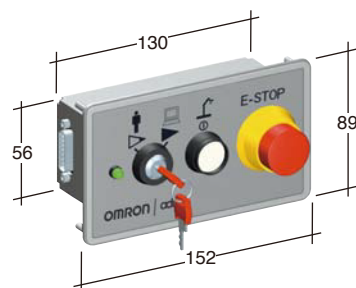
Flange



Footprint



Front panel



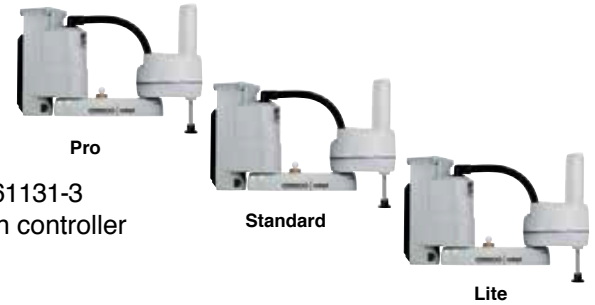
Robot Parts Code and Included Accessories

Type	eCobra	eCobra Add-On
eCobra 800 Lite	17000-18000	---
eCobra 800 Standard	17101-18000	17103-18000
eCobra 800 Pro	17201-18000	17203-18000
Overview	Robot eAIB with fully integrated controls	Robot eAIB, with required connections for EX controller
Purpose	Used as a standalone robot	Includes cables & licenses to connect to an EX controller
Accessories Included with Bundle	• XSYS cable with jumpers, 2m/6ft (13323-000) • Front panel kit (90356-10358)	• XSYS cable with jumpers, 2m/6ft (13323-000) • XSYS cable, 5m/15 ft (11585-000) • DB9 splitter (00411-000) • 1394 latch cable, 5m/15 ft, 13632-045) • eV+ license to connect to controller (14529-103)

Note: OMRON also provides other types of model. Ask your OMRON sales representative for details.

eCobra 800 Inverted Lite/Standard/Pro

Overhead mount SCARA robot system for mechanical assembly, material handling, packaging, and machine tending



- ePLC connectivity to control the robot through the Standard IEC61131-3 programming language using Omron's NJ/NX Machine automation controller
- Overhead mounting
- Capable of heavy payloads to handle large tooling
- The amplifier and controller built into the robot reduces the overall footprint & cabling
- Three different performance tiers to address different application complexity and throughput requirements
- Reach 800 mm
- Maximum payload 5.5 kg
- Cleanroom class 10 option
- Protection IP65 option

Specifications

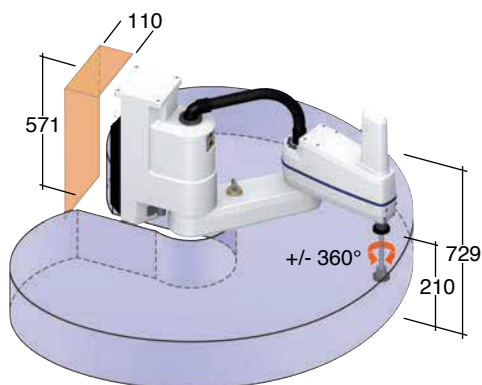
Product name		eCobra Inverted		
		800		
Size				
Type		800 Lite	800 Standard	800 Pro
Model		17000-18400	1710□-18400	1720□-18400
Number of axes		4	4	4
Mounting		Ceiling		
Reach		800 mm		
Maximum Payload		5.5 kg		
Repeatability	XY	±0.017 mm		
	Z	±0.003 mm		
	Theta	±0.019°		
Joint Range	Joint 1	±23.5°		
	Joint 2	±156.5°		
	Joint 3	210 mm		
	Joint 4	±360°		
Inetia Moment (Max.)	Joint 4	450 kg-cm ²		
Joint Speeds	Joint 1	386°/s		
	Joint 2	720°/s		
	Joint 3	1100 mm/s		
	Joint 4	1200°/s		
Power Requirements		24 VDC: 6 A 230 VAC: 10 A		
Protection		IP20 (IP65 option)		
Environment Requirements	Ambient Temperature	5 to 40°C		
	Humidity Range	5 to 90% (non-condensing)		
Weight		51 kg		
Basic configuration	Controller	eAIB		
	On-board I/O (Input/Output)	12/12		
	Conveyor tracking input	No		2
	RS-232C serial communications port	No	1	
	Programming environment	ACE	ACE, PackXpert, PLC	
	ACE Sight	No	Yes	
	ePLC Connect	No	Yes	
Connectable controller		No	SmartController EX, NJ/NX Series *	

* NJ/NX Series with ePLC Connect

Dimensions

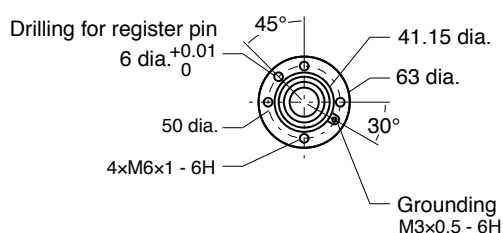
(Unit: mm)

eCobra Inverted 800

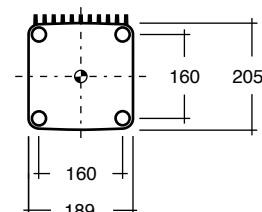


- Work Envelope: Radius 800 mm
Inner Limit: Radius 167 mm
Height: 210 mm
- Required clearance to open eAIB Chassis

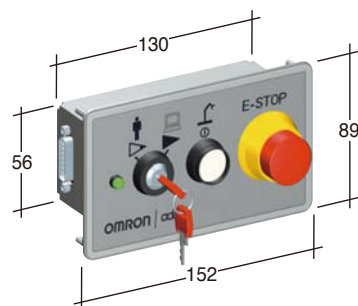
Flange



Footprint



Front panel



Robot Parts Code and Included Accessories

Type	eCobra	eCobra Add-On
eCobra 800 Inverted Lite	17000-18400	---
eCobra 800 Inverted Standard	17101-18400	17103-18400
eCobra 800 Inverted Pro	17201-18400	17203-18400
Overview	Robot, eAIB with fully integrated controls	Robot, eAIB with required connection cables for EX Controller
Purpose	Used as a standalone robot	Includes cables & licenses to connect to an EX controller
Accessories Included with Bundle	- XSYS cable with jumpers, 2m/6ft (13323-000) - Front panel kit (90356-10358)	- XSYS cable with jumpers, 2m/6ft (13323-000) - XSYS cable, 5m/15 ft (11585-000) - DB9 splitter (00411-000) 1394 latch cable, 5m/15 ft, 13632-045) - eV+ license to connect to controller (14529-103)

Articulated Robots

Viper 650

Articulated robot for machining, assembly, and material handling

- ePLC connectivity to control the robot through the Standard IEC61131-3 programming language using Omron's NJ/NX Machine automation controller
- Compact footprint using the amplifier with a built in controller
- Diagnostics display enables faster trouble shooting
- High-resolution, absolute encoders to provide high accuracy, superior slow-speed following, and easy calibration
- High-efficiency, low-inertia Harmonic Drives and a lightweight arm to deliver maximum acceleration
- Reach 653 mm
- Maximum payload 5 kg
- Protection IP40¹
- Cleanroom class 10 option



Specifications

Product name		Viper
	Size	650
Model		1720□-36000
Mounting		Table/Floor/Ceiling
Number of axes		6
Reach		653 mm
Maximum Payload		5 kg
Repeatability	XYZ	±0.02 mm
Joint Range	Joint 1	±170°
	Joint 2	-190°, +45°
	Joint 3	-29°, +256°
	Joint 4	±190°
	Joint 5	±120°
Inertia Moment (Max.)	Joint 4	0.295 kgm ²
	Joint 5	0.295 kgm ²
	Joint 6	0.045 kgm ²
Joint Speeds	Joint 1	328°/s
	Joint 2	300°/s
	Joint 3	375°/s
	Joint 4	375°/s
	Joint 5	375°/s
	Joint 6	600°/s

Product name		Viper
	Size	650
Power Requirements		24VDC: 6A 200 to 240VAC: 10A, single-phase
Protection		IP40 ¹
Environment Requirements	Ambient Temperature	5 to 40°C
	Humidity Range	5 to 90% (non-condensing)
Weight		28 kg
cULus Compliant		-----
Basic configuration	Controller	eMotionBlox-60R
	On-board I/O (Input/Output)	12/12
	Conveyor tracking input	2
	RS-232C serial communications port	1
	Programming environment	ACE, PackXpert, PLC
	ePLC Connect	Yes
Connectable controller		eMotionBlox-60R, SmartController EX, NJ/NX Series ²

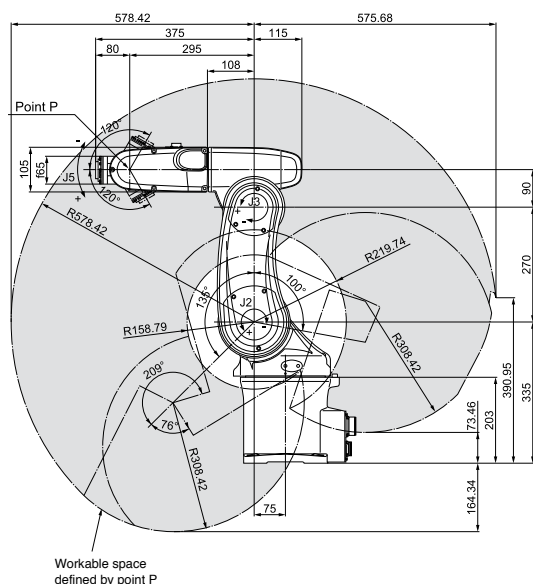
¹ IP54: main body, IP65: robot joints (J4, J5, J6)

² NJ/NX Series with ePLC Connect

Dimensions

(Unit: mm)

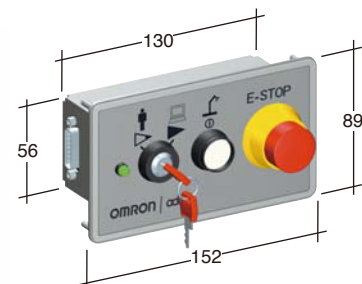
Viper 650



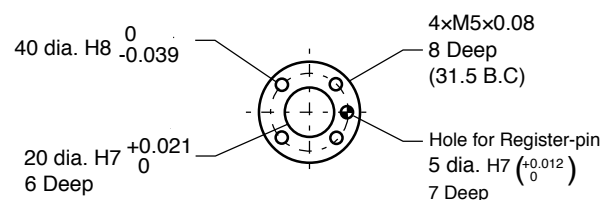
eMotion Blox -60R



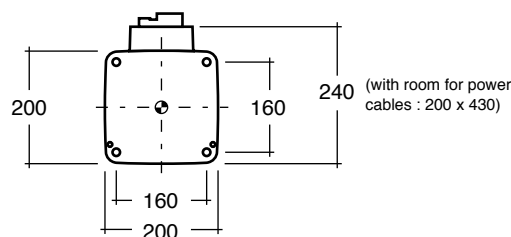
Front panel



Flange



Footprint



Robot Parts Code and Included Accessories

Type	Viper	Viper Add-On
Viper 650	17201-36000	17203-36000
Overview	Robot eMotionBlox60R amplifier with fully integrated controls	Robot eMotionBlox60R & required connection cables to connect to EX controller
Purpose	Used as a standalone robot	Includes cables & licenses to connect to an EX controller
Accessories Included with Bundle	- XSYS cable with jumpers, 2m/6ft (13323-000) - Front panel kit (90356-10358)	- XSYS cable with jumpers, 2m/6ft (13323-000) - XSYS cable, 5m/15 ft (11585-000) - DB9 splitter (00411-000) 1394 latch cable, 5m/15 ft, 13632-045) - eV+ license to connect to controller (14529-103)

Articulated Robots

Viper 850

Articulated robot for machining, assembly, and material handling

- ePLC connectivity to control the robot through the Standard IEC61131-3 programming language using Omron's NJ/NX Machine automation controller
- A compact footprint using the amplifier with a built-in controller
- Diagnostics display enables faster trouble shooting
- High-resolution, absolute encoders to provide high accuracy, superior slow-speed following, and easy calibration
- High-efficiency, low-inertia Harmonic Drives and a lightweight arm to deliver maximum acceleration
- Reach 854 mm
- Maximum payload 5 kg
- Weight 29 kg¹
- Protection IP40
- Cleanroom class 10 option



Specifications

Product name		Viper
	Size	850
Model		1720□-38000
Mounting		Table/Floor/Ceiling
Number of axes		6
Reach		854 mm
Maximum Payload		5 kg
Repeatability	XYZ	±0.03 mm
Joint Range	Joint 1	±170°
	Joint 2	-190°, +45°
	Joint 3	-29°, +256°
	Joint 4	±190°
	Joint 5	±120°
	Joint 6	±360°
Inertia Moment (Max.)	Joint 4	0.295 kgm ²
	Joint 5	0.295 kgm ²
	Joint 6	0.045 kgm ²
Joint Speeds	Joint 1	250°/s
	Joint 2	250°/s
	Joint 3	250°/s
	Joint 4	375°/s
	Joint 5	375°/s
	Joint 6	600°/s

Product name		Viper
	Size	850
Power Requirements		24VDC: 6A 200 to 240VAC: 10A, single-phase
Protection		IP40 ¹
Environment Requirements	Ambient Temperature	5 to 40°C
	Humidity Range	5 to 90% (non-condensing)
Weight		29 kg
cULus Compliant		---
Basic configuration	Controller	eMotionBlox-60R
	On-board I/O (Input/Output)	12/12
	Conveyor tracking input	2
	RS-232C serial communications port	1
	Programming environment	ACE, PackXpert, PLC
	ePLC Connect	Yes
Connectable controller	ePLC I/O	Yes
		eMotionBlox-60R, SmartController EX, NJ/NX Series ²

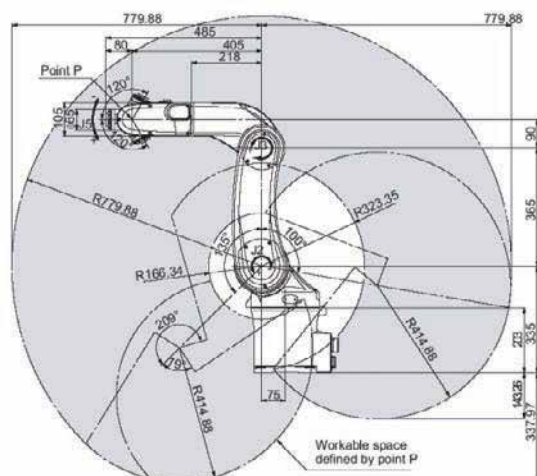
¹ IP54: main body, IP65: robot joints (J4, J5, J6)

² NJ/NX Series with ePLC Connect

Dimensions

(Unit: mm)

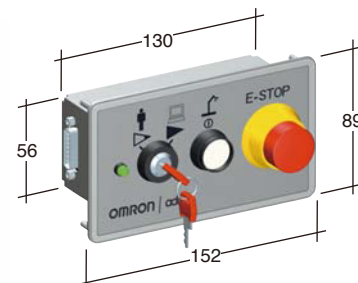
Viper 850



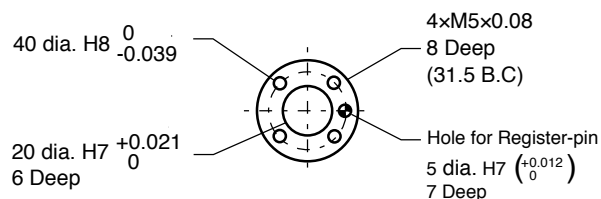
eMotion Blox -60R



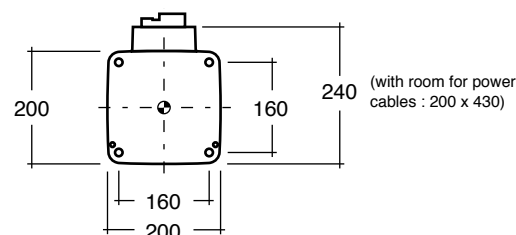
Front panel



Flange



Footprint



Robot Parts Code and Included Accessories

Type	Viper	Viper Add-On
Viper 850	17201-38000	17203-38000
Overview	Robot eMotionBlox60R amplifier with fully integrated controls	Robot eMotionBlox60R & Required connection cables for EX
Purpose	Used as a standalone robot	Includes cables & licenses to connect to an EX controller
Accessories Included with Bundle	• XSYS cable with jumpers, 2m/6ft (13323-000) • Front panel kit (90356-10358)	• XSYS cable with jumpers, 2m/6ft (13323-000) • XSYS cable, 5m/15 ft (11585-000) • DB9 splitter (00411-000) • 1394 latch cable, 5m/15 ft, 13632-045) • eV+ license to connect to controller (14529-103)

Automation Control Environment (ACE)

ACE software provides a host of innovative features that allow you to increase productivity while streamlining configuration setup

ACE is a PC-based software package that helps you quickly and easily set up your robot system. The software makes it easy to configure single and multi-robot systems.



- ACE PackXpert is the intelligent software choice designed to manage packaging systems from integration to deployment
- ACE PackXpert provides the underlying robot programming based on the system configuration
- Built-in customization allows for any line configuration and advanced load balancing
- Wizard-based user-friendly interface to calibrate and teach the robots
- Tightly-integrated vision option (ACE Sight) enables vision-guided conveyor-tracking
- Display and share process statistics
- Built-in UI Builder to create a custom operator interface



ACE PackXpert

The ACE PackXpert is intelligent software designed to manage a packaging line from integration and deployment through operation. The software walks you through the configuration of packaging applications by setting up process-specific items, such as controllers, robots, and conveyor belts.

Scalable

Manage robots on packaging lines

Fast

Deploy your application faster through a user-friendly GUI

Reusable

Use across a variety of applications

Complete

Adjust control settings through V+ and C#



Versatile

No lengthy programming required

Adaptable

Create your own operator interface with the built-in UI Builder

Visual

Get a 3D view of your packaging line

ACE License Configuration

Software License	Description	Model
	eV+ license for the robot to connect to EX	14529-103
	ACE PackXpert License	09187-000
	ACE Sight 3.0 Vision Software	01056-030
	ACE PackXpert & ACE Sight Vision software	09187-010
	Upgrade license eSeries Robot Lite to Standard	14529-101
	Upgrade license eSeries Robot Standard to Pro	14529-102

System Requirements

Item	Requirement
Operating system (OS)	Windows Vista (32-bit version) / Windows 7 (32-bit/64-bit version) / Windows 8 (32-bit/64-bit version) / Windows 8.1 (32-bit/64-bit version) / Windows 10 (32-bit/64-bit version)
CPU	Intel® Core™ i7 or equivalent or faster recommended.
Main memory	2 GB min. (8 GB min. recommended.)
Video memory	512 MB min.
Hard disk	At least 1 GB of available space
Display	XGA 1,024 × 768, 16 million colors. WXGA 1,280 × 800 min. recommended
Communications ports	USB port (for hardware key), Ethernet port
Supported languages	Japanese, English, German, simplified Chinese



Automation Control Environment (ACE)

The ACE is a PC-based software package that helps you quickly and easily set up your robot system. Contact your Omron representative for ACE

SmartController EX

High-performance robot motion controller capable of high-speed processing

- Controls up to four robots
- Gigabit Ethernet
- 12 inputs/8 outputs
- Ultra-compact form factor for high footprint efficiency
- Integration with ACE software



Specifications

Item		Specifications
Model		19300-000
Grounding Method		Ground to less than 100 Ω
Dimensions (Height × Depth × Width)		86 × 187 × 329 mm
Weight		2.6 kg
Power Supply		24 VDC±10%
Current Consumption		5 A
Power Consumption		120 W
Operation Environment	Ambient Temperature	5 to 40°C
	Humidity Range	5 to 90% (non-condensing)
Mounting		Panel mount, rack mount, stack mount, desktop
Communications Port		RS-232 (115 kbps), RS422/485, Gigabit Ethernet, DeviceNet
I/O		12 inputs, 8 outputs
Encoder Input		4 inputs

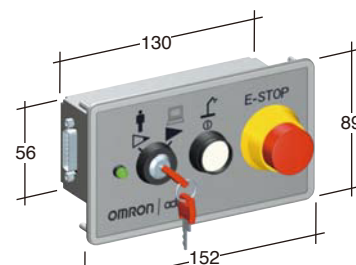
Dimensions

(Unit: mm)

SmartController EX



Front panel



Note: Front Panel is provided with the SmartController EX.

Dependable vision system optimized for robot applications

- Fanless construction
- Supports up to eight cameras simultaneously
- Capable of processing high resolution and high frame rate images
- Dedicated software ACE Sight provides easy-to-use object location and inspection tools
- GigE PoE and USB 3.0 ports for a wide variety of cameras
- A wide operating temperature range and SSD ensure high reliability



Specifications

Item		Specifications
Model		14189-901
Grounding Method		Ground to less than 100 Ω
Dimensions (Height × Depth × Width)		68 × 150 × 260 mm
Weight		2.16 kg
CPU		Intel® Core™ i7
Main Memory		8 GB DDR3 RAM
Power Supply		10 to 32 VDC
Current Consumption		4.2 A (24 VDC), 7.0 A max. (when using 4 cameras)
Power Consumption		9 to 36 VDC
Operation Environment	Ambient Temperature	0 to 50°C
	Humidity Range	5 to 90% (non-condensing)
Communications Port	Ethernet	Gigabit Ethernet × 2, Gigabit Ethernet with PoE × 4 15.7 W per channel
	USB	USB 3.0 × 4, USB 2.0 × 2
	Display	DVI-D × 1 (up to 1,920 × 1,200 @60 Hz), DVI-I × 1 (up to 2,048 × 1,536 @75 Hz)
I/O		8 inputs, 8 outputs

Dimensions

(Unit: mm)

SmartVision MX



Camera Variations



It does not matter if priority is on speed or resolution, there is a Camera that is ideal for your application.

Commu- nication	Color/ Monochrome	Details	Model
GigE	Monochrome	640 x 480 dots, 120 fps, CCD (1/4-inch equivalent)	24114-100
	Color	640 x 480 dots, 120 fps, CCD (1/4-inch equivalent)	24114-101
	Monochrome	1296 x 996 dots, 30 fps, CCD (1/3-inch equivalent)	24114-200
	Color	1296 x 996 dots, 30 fps, CCD (1/3-inch equivalent)	24114-201
	Monochrome	1600 x 1200 dots, 60 fps, CMOS (1/1.8-inch equivalent)	24114-250
	Monochrome	2048 x 2048 dots, 25 fps, CMOS (1-inch equivalent)	24114-300
USB3	Monochrome	640 x 480 dots, 120 fps, CCD (1/4-inch equivalent)	24164-100
	Monochrome	1296 x 966 dots, 30 fps, CCD (1/3-inch equivalent)	24164-200
	Monochrome	2048 x 2048 dots, 25 fps, CMOS (1-inch equivalent)	24164-300

Pendant T20 Pendant

Rugged teach pendant with ergonomic design

- Tested for a 1.5 meter drop onto industrial flooring
- Displays custom messages
- Emergency stop switch (dual channel circuit)
- Enable switch on back
- Lightweight for fatigue-free operation
- Bright display with backlight and contrast adjustment



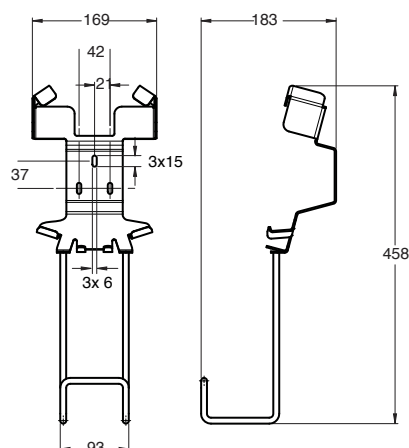
Dimensions

(Unit: mm)

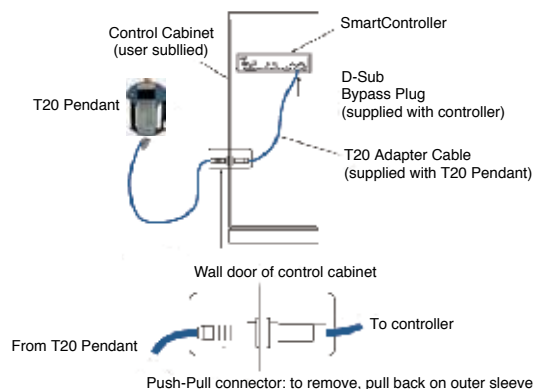
T20 Pendant



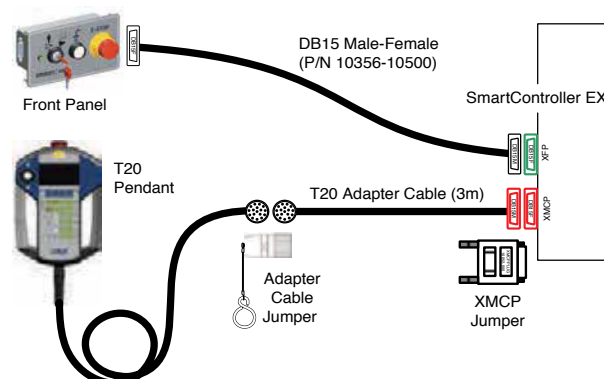
Wall Bracket Dimensions - Optional



Connection to SmartController



Panel and Front panel Installation

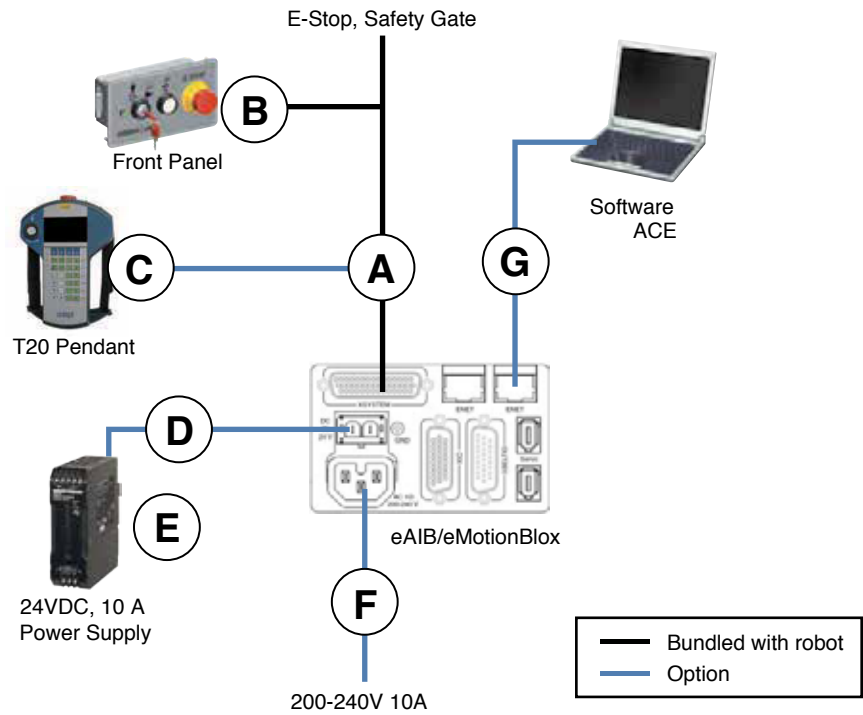


Name	Details	Model
Pendant	T20 Pendant, 10m Cable ¹	10046-010
	T20 Pendant-Jumper Plug	10048-000
	T20 Pendant Wall Bracket	10079-000

¹ T20 jumper plug (10048-000) is included with the T20 Pendant (10046-010)

System Configuration

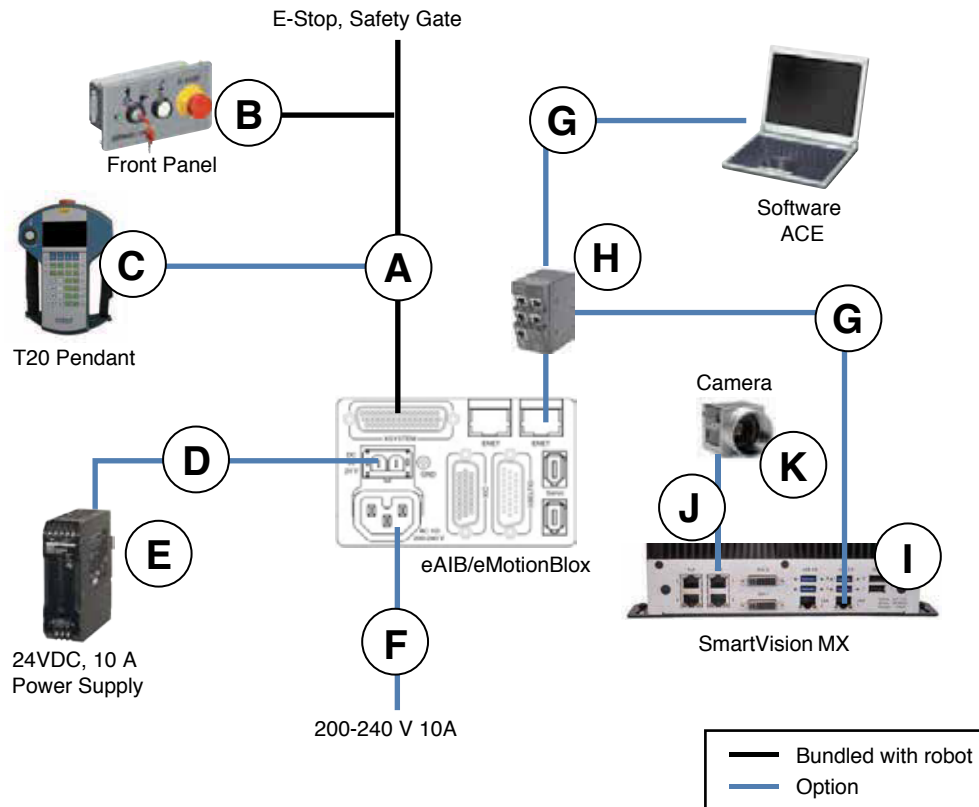
Control by eAIB/eMotionBlox
Stand alone robot



Part	Name	Model	Note
---	Robot	17□□1-□□□□□	Except for Quattro
A	eAIB XSYSTEM Cable Assembly	13323-000	Bundled with robot
B	Front Panel	90356-10358	Bundled with robot
C	T20 Pendant	10046-010	Option
D	24 VDC Power Cable	04120-000	Option
E	24 VDC, 10 A Power Supply	S8VK-G24024	Option
F	AC Power Cable	04118-000	Option
G	Ethernet Cable	XS6W-6LSZH8SS□□□CM-Y	Option

Vision tracking robot system

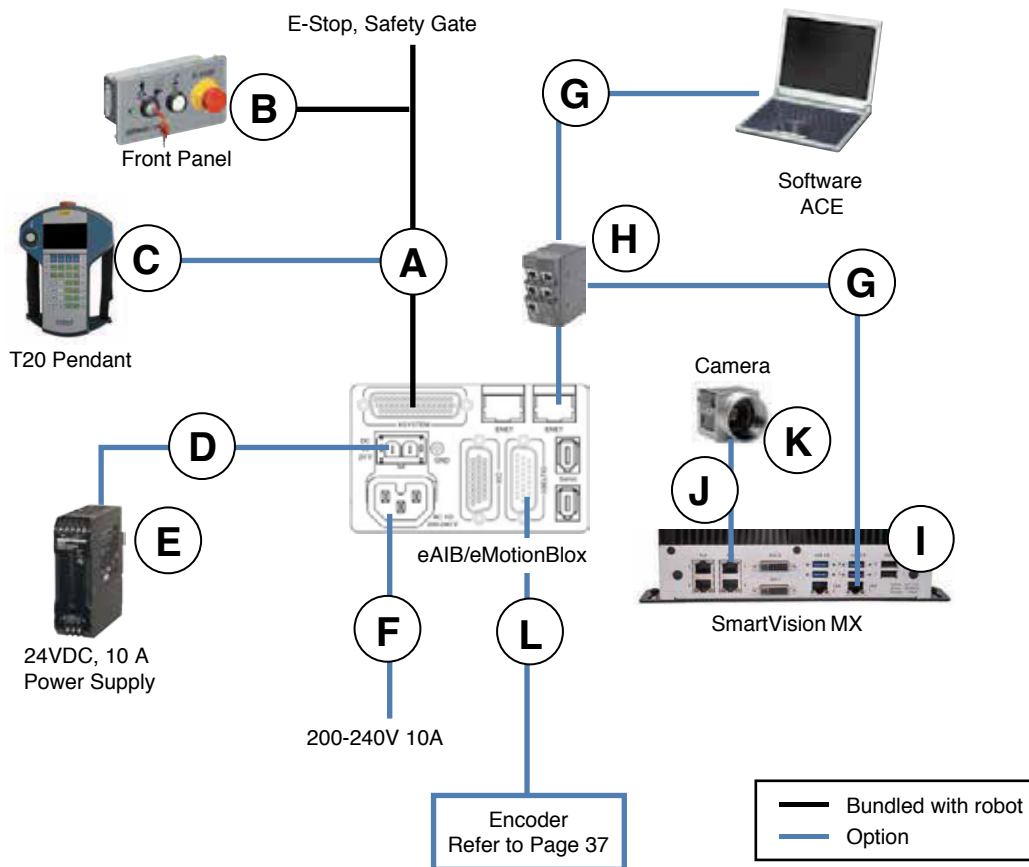
Single robot eAIB/eMotionBlox with Smart vision MX



Part	Name	Model	Note
---	Robot	17□□1-□□□□□	Except for Quattro
A	eAIB XSYSTEM Cable Assembly	13323-000	Bundled with robot
B	Front Panel	90356-10358	Bundled with robot
C	T20 Pendant	10046-010	Option
D	24 VDC Power Cable	04120-000	Option
E	24 VDC, 10 A Power Supply	S8VK-G24024	Option
F	AC Power Cable	04118-000	Option
G	Ethernet Cable	XS6W-6LSZH8SS□□□CM-Y	Option
H	Industrial Switching Hubs	W4S1-05B	Option
I	SmartVision MX	14189-901	Option
J	Camera cable	Refer to the <i>Ordering Information</i> .	Option
K	Camera	Refer to the <i>Ordering Information</i> .	Option

Conveyor tracking robot system

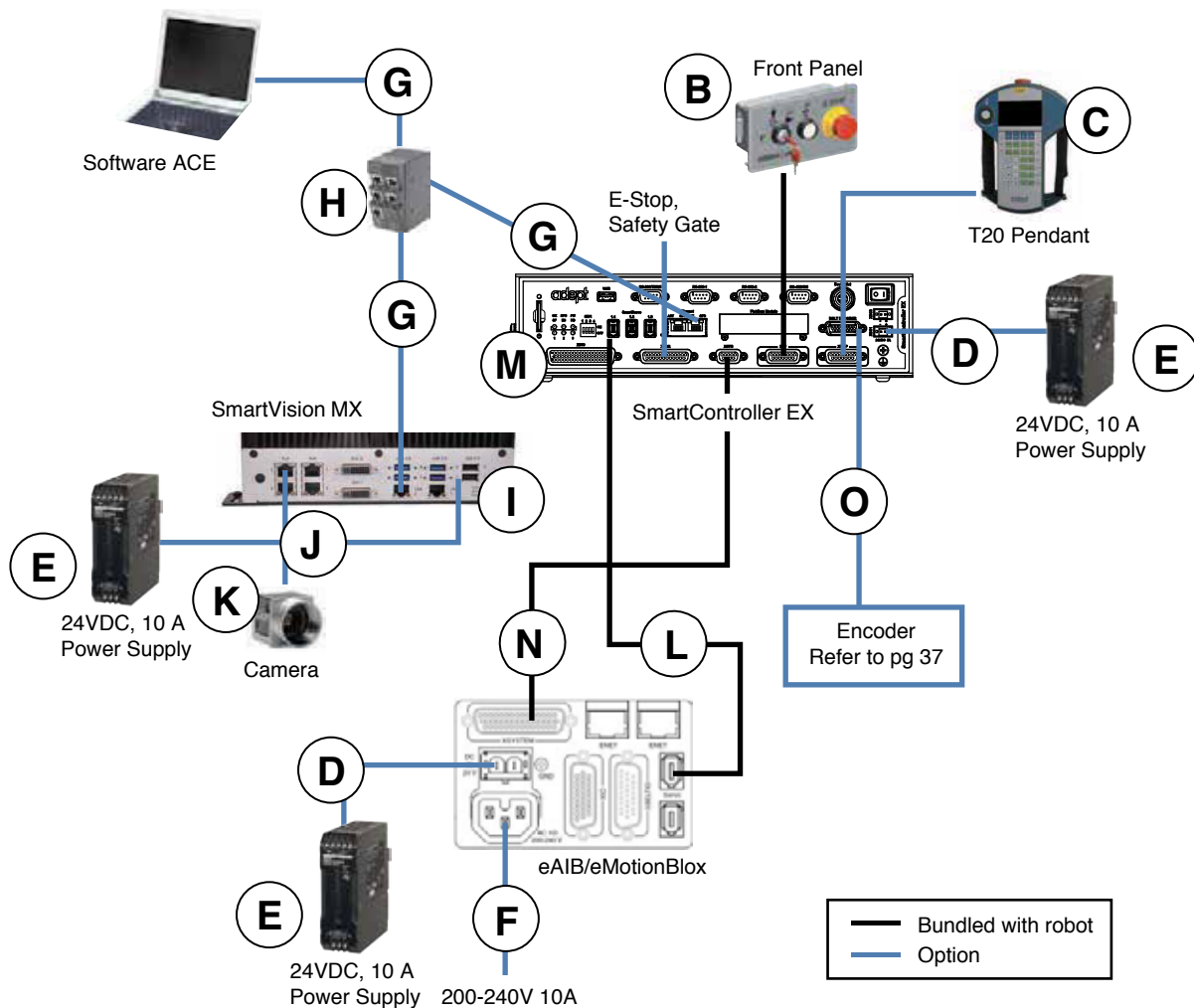
Single robot with conveyor tracking & Smart vision MX



Part	Name	Model	Note
---	Robot	17□00-□□□□□	Except for Quattro
A	eAIB XSYSTEM Cable Assembly	13323-000	Bundled with robot
B	Front Panel	90356-10358	Bundled with robot
C	T20 Pendant	10046-010	Option
D	24 VDC Power Cable	04120-000	Option
E	24 VDC, 10 A Power Supply	S8VK-G24024	Option
F	AC Power Cable	04118-000	Option
G	Ethernet Cable	XS6W-6LSZH8SS□□□CM-Y	Option
H	Industrial Switching Hubs	W4S1-05B	Option
I	SmartVision MX	14189-901	Option
J	Camera cable	Refer to the <i>Ordering Information</i> .	Option
K	Camera	Refer to the <i>Ordering Information</i> .	Option
L	XBELTIO Cable	13463-000	Option

Conveyor tracking robot system by SCEX

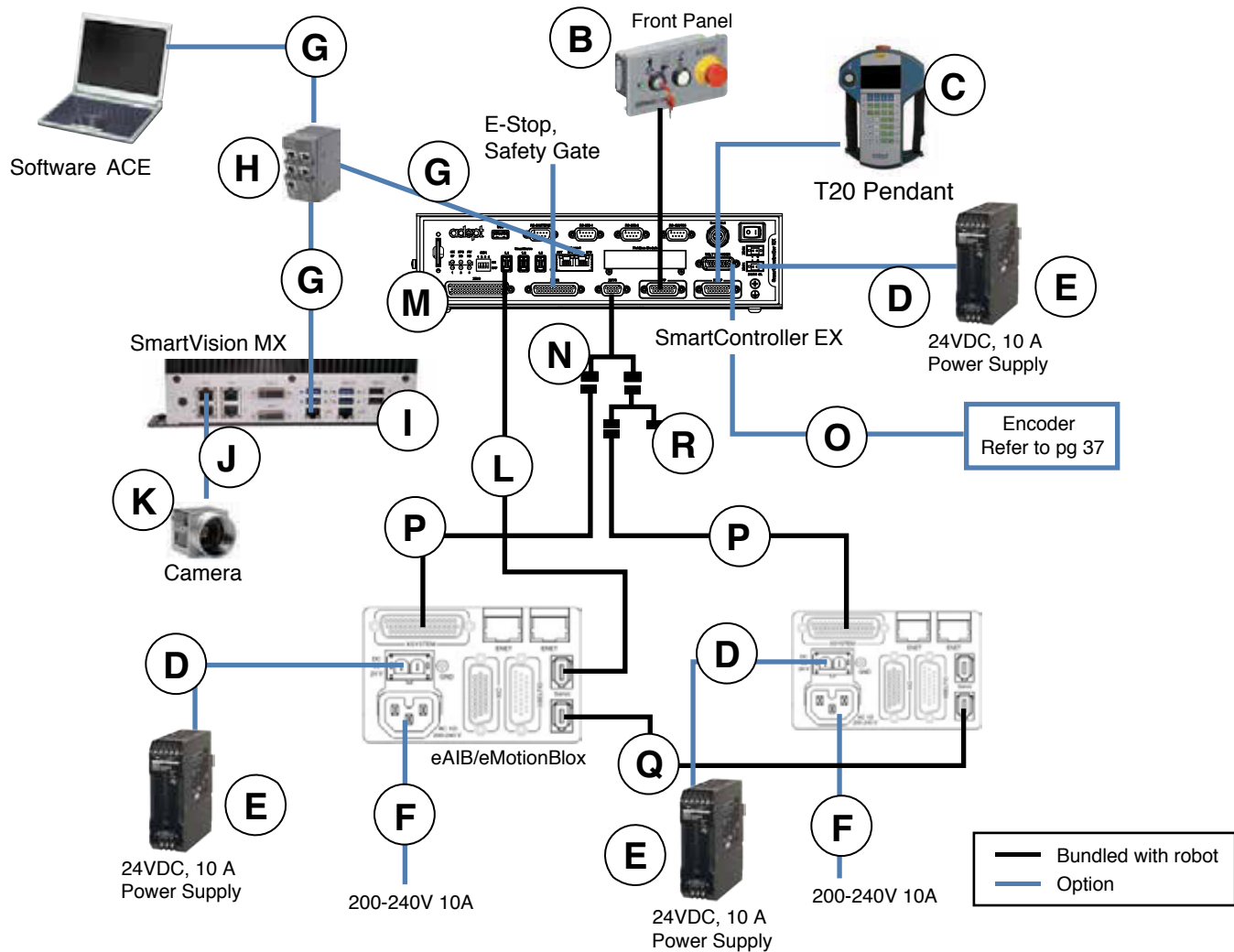
Single robot with EX Controller, Conveyor tracking & Smart vision MX



Part	Name	Model	Note
---	Robot	17□□3-□□□□□	---
A	eAIB XSYSTEM Cable Assembly	13323-000	Bundled with add on robot
B	Front Panel	90356-10358	Bundled with EX controller
C	T20 Pendant	10046-010	Option
D	24 VDC Power Cable	04120-000	Option
E	24 VDC, 10 A Power Supply	S8VK-G24024	Option
F	AC Power Cable	04118-000	Option
G	Ethernet Cable	XS6W-6LSZH8SS□□□CM-Y	Option
H	Industrial Switching Hubs	W4S1-05B	Option
I	SmartVision MX	14189-901	Option
J	Camera cable	Refer to the <i>Ordering Information</i> .	Option
K	Camera	Refer to the <i>Ordering Information</i> .	Option
L	IEEE 1394 cable	13632-045	Bundled with robot
M	SmartController EX	09200-000	Option
N	eAIB XSYS Cable	11585-000	Bundled with robot
O	SCEX-BELT, Y-Adapter Cable	09550-000	Option

Conveyor tracking dual-robotics system

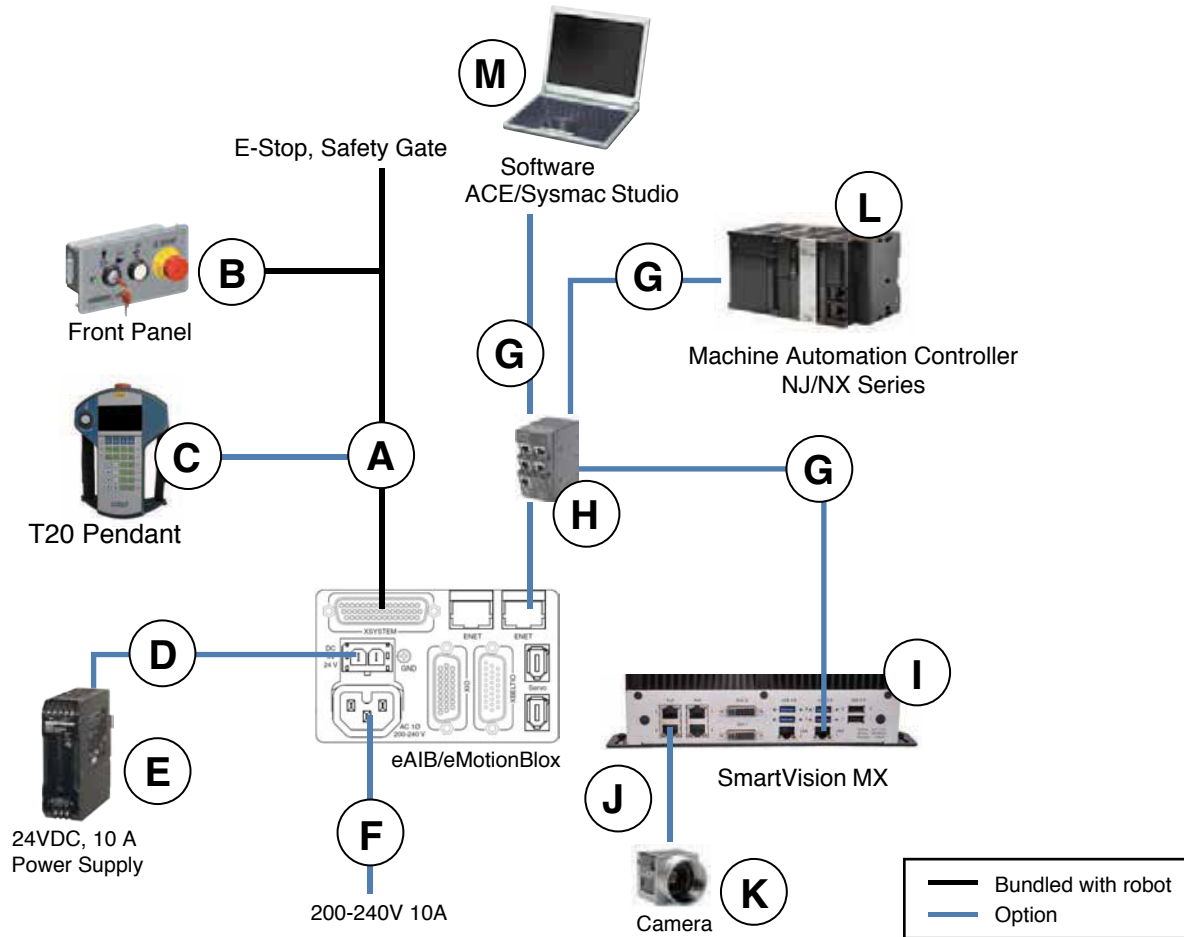
Multiple robots with Smart Controller EX, Conveyor tracking, & Smart Vision MX



Part	Name	Model	Note
---	Robot Add-on	17□□3-□□□□□	---
A	eAIB XSYSTEM Cable Assembly	13323-000	Bundled with robot (Use when moving the robot without the SmartController EX)
B	Front Panel	90356-10358	Bundled with EX controller
C	T20 Pendant	10046-010	Option
D	24 VDC Power Cable	04120-000	Option
E	24 VDC, 10 A Power Supply	S8VK-G24024	Option
F	AC Power Cable	04118-000	Option
G	Ethernet Cable	XS6W-6LSZH8SS□□□CM-Y	Option
H	Industrial Switching Hubs	W4S1-05B	Option
I	SmartVision MX	14189-901	Option
J	Camera cable	Refer to the <i>Ordering Information</i> .	Option
K	Camera	Refer to the <i>Ordering Information</i> .	Option
L	IEEE 1394 cable	13632-045	Option
M	SmartController EX	09200-000	Option
N	DB9 splitter	00411-000	Bundled with robot
O	SCEX-BELT,Y-Adapter Cable	09550-000	Option
P	eAIB XSYS Cable	11585-000	Bundled with robot
Q	IEEE 1394 cable	13632-045	Bundled with robot
R	DB9 splitter	00411-000	Bundled with robot
---	Robot Add-on	17□□3-□□□□□	---

Vision tracking robot system

Single robot with Smart vision MX, Conveyor tracking, & ePLC I/O



Part	Name	Model	Note
---	Robot	17□□1-□□□□	Except for Quattro
A	eAIB XSYSTEM Cable Assembly	13323-000	Bundled with robot
B	Front Panel	90356-10358	Bundled with robot
C	T20 Pendant	10046-010	Option
D	24 VDC Power Cable	04120-000	Option
E	24 VDC, 10 A Power Supply	S8VK-G24024	Option
F	AC Power Cable	04118-000	Option
G	Ethernet Cable	XS6W-6LSZH8SS□□□CM-Y	Option
H	Industrial Switching Hubs	W4S1-05B	Option
I	SmartVision MX	14189-901	Option
J	Camera cable	Refer to the <i>Ordering Information</i> .	Option
K	Camera	Refer to the <i>Ordering Information</i> .	Option
L	Machine Automation Controller NJ/NX-Series	NJ/NX	Option
M	Automation software Sysmac Studio	SYSMAC-SE2□□□	Option

SmartController EX with Encoder Kit



Protection and Cleanroom Classes

Type	Name	Specifications	Option	Remarks
Parallel Robots	Hornet 565	IP67: arms and platform IP65: underside of robot IP20: topside of robot Class 1000	IP65: topside of robot	The addition of the cable sealing kit raises the IP rating of the topside of the robot to IP65.
	Quattro 650H Quattro 800H	IP67: arms and platform Class 1000	IP65: robot base	The addition of the cable sealing kit raises the IP rating of the topside of the robot to IP65.
	Quattro 650HS	IP67: arms and platform IP66: robot base Class 1000	---	Mount the Cable Inlet Box (09564-000) on the topside of the robot.
SCARA Robots	Cobra 350	IP20	Class10 Cleanroom model	The version with the options have different model number.
	eCobra 600	IP20	Class10 Cleanroom model	The version with the options have different model number.
	eCobra 800 eCobra 800 Inverted	IP20	IP65, Class10 Cleanroom model	The version with the options have different model number.
Articulated Robots	Viper 650 Viper 850	IP40	IP54: robot main body IP65: robot joints (J4, J5, J6) Class10 Cleanroom model	The version with the option have different model number.

Ordering Information

Industrial Robots

Type	Name	Model
Parallel Robotos	Hornet 565 4AXIS	17201-45604
	Hornet 565 3AXIS	17201-45600
	Hornet 565 4AXIS (Add on)	17203-45604
	Hornet 565 3AXIS (Add on)	17203-45600
	Quattro 650H P30	17204-26000
	Quattro 650H P31	17204-26001
	Quattro 650H P32	17204-26002
	Quattro 650H P34	17204-26004
	Quattro 650HS P30	17204-26010
	Quattro 650HS P31	17204-26011
	Quattro 650HS P32	17204-26012
	Quattro 650HS P34	17204-26014
	Quattro 800H P30	17204-26300
	Quattro 800H P31	17204-26301
	Quattro 800H P32	17204-26302
	Quattro 800H P34	17204-26304
	Quattro 650H P30 (Add on)	17203-26000
	Quattro 650H P31 (Add on)	17203-26001
	Quattro 650H P32 (Add on)	17203-26002
	Quattro 650H P34 (Add on)	17203-26004
	Quattro 650HS P30 (Add on)	17203-26010
	Quattro 650HS P31 (Add on)	17203-26011
	Quattro 650HS P32 (Add on)	17203-26012
	Quattro 650HS P34 (Add on)	17203-26014
	Quattro 800H P30 (Add on)	17203-26300
	Quattro 800H P31 (Add on)	17203-26301
	Quattro 800H P32 (Add on)	17203-26302
	Quattro 800H P34 (Add on)	17203-26304
SCARA Robots	Cobra 350	17201-13000
	eCobra 600 Lite	17000-16000
	eCobra 600 Standard	17101-16000
	eCobra 600 Pro	17201-16000
	eCobra 800 Lite	17000-18000
	eCobra 800 Standard	17101-18000
	eCobra 800 Pro	17201-18000
	eCobra 800 Inverted Lite	17000-18400
	eCobra 800 Inverted Standard	17101-18400
	eCobra 800 Inverted Pro	17201-18400
	Cobra 350 (Add on)	17203-13000
	eCobra 600 Standard (Add on)	17103-16000
	eCobra 600 Pro (Add on)	17203-16000
	eCobra 800 Standard (Add on)	17103-18000
	eCobra 800 Pro (Add on)	17203-18000
	eCobra 800 Inverted Standard (Add on)	17103-18400
	eCobra 800 Inverted Pro (Add on)	17203-18400
Articulated Robots	Viper 650	17201-36000
	Viper 850	17201-38000
	Viper 650 (Add on)	17203-36000
	Viper 850 (Add on)	17203-38000

Options

Type	Name/Specifications	Model
Robot Controller	SmartController EX	19300-000
Pendant	T20 Pendant, 10m Cable	10046-010
	T20 Pendant-Jumper Plug	10048-000
	T20 Pendant Wall Bracket	10079-000
Sensor Controllers	SmartVision MX	14189-901
Camera	GigE PoE, 640 x 480 dots, 120 fps, Monochrome, CCD (1/4-inch equivalent)	24114-100
	GigE PoE, 640 x 480 dots, 120 fps, Color, CCD (1/4-inch equivalent)	24114-101
	GigE PoE, 1296 x 996 dots, 30 fps, Monochrome, CCD (1/3-inch equivalent)	24114-200
	GigE PoE, 1296 x 996 dots, 30 fps, Color, CCD (1/3-inch equivalent)	24114-201
	GigE PoE, 1600 x 1200 dots, 60 fps, Monochrome, CMOS (1/1.8-inch equivalent)	24114-250
	GigE PoE, 2048 x 2048 dots, 25 fps, Monochrome, CMOS (1-inch equivalent)	24114-300
	USB3, 640 x 480 dots, 120 fps, Monochrome, CCD (1/4-inch equivalent)	24164-100
	USB3, 1296 x 966 dots, 30 fps, Monochrome, CCD (1/3-inch equivalent)	24164-200
	USB3, 2048 x 2048 dots, 25 fps, Monochrome, CMOS (1-inch equivalent)	24164-300
Belt Encoder (Conveyor-Tracking)	Encoder Kit IP65	09742-001
	Encoder IP65	09439-001
	Encoder Bracket	09439-100
	Y-Adapter Cable, 3 m	09443-000
	Encoder Extension Cable, 5 m	09446-050
	SCEX-BELT,Y-Adapter Cable	09550-000
	XBELTIO Cable	13463-000
Additional I/O Options	IO Blox 8 inputs/8 outputs (IO Blox - connects to robot)	90356-30200
	IO Blox 8 inputs/8 outputs (expansion - connects to previous IO Blox)	90356-30100
	IO Blox Extension Cable, 0.30m (connects IO Blox to IO Blox)	04679-003
	IO Blox Extension Cable, 3.0m (connects IO Blox to IO Blox)	04679-030
	IO Blox Extension Cable, 3.0m (connects IO Blox to robot)	04677-030
	Termination Block, 12inputs/8 outputs	90356-40100
Front panel	Front Panel	90356-10358
	Front Panel Cable	10356-10500
Power Supply/Cable	AC Power Cable	04118-000
	24 VDC Power Cable	04120-000
	24 VDC, 6.5 A, Power Supply	S8VK-G01524 ¹
	1394 Cable, 4.5m	13632-045
	eAIB XSYSTEM Cable Assembly	13323-000
	DB9 Splitter	00411-000
	eAIB XSYS Cable	11585-000
	Ethernet Cable	XS6W-6LSZH8SS□□□CM-Y ²
	Industrial Switching Hubs	W4S1-05B ³
Software License	eV+ license for the robot to connect to EX	14529-103
	ACE PackXpert License	09187-000
	ACE Sight 3.0 Vision Software	01056-030
	ACE PackXpert & ACE Sight Vision software	09187-010
	Upgrade license eSeries Robot Lite to Standard	14529-101
	Upgrade license eSeries Robot Standard to Pro	14529-102
	ACE License Additional Camera Option	09287-000
	ACE License Color Camera option	09287-040
	ACE License for multiple Controller	09287-010
	ACE License OPC Server	09287-020
	ACE License, OPC Client	09287-030
	ACE Advanced UI Builder LCNS	09287-070

Type	Name/Specifications	Model
Related Products	Machine Automation Controller NJ/NX Series	NJ/NX ^{*4}
	Automation Software Sysmac Studio	SYSMAC-SE2□□□ ^{*4}
	Collection of software functional components	
	Sysmac Library Adept Robot Control Library	SYSMAC-XR009 ^{*5}

Note: Contact your Omron representative for lenses, lights, and licenses.

^{*1} Refer to the Switch Mode Power Supply Catalog (Cat. No. T041 & Cat. No. T37I) for details.

^{*2} Refer to the Industrial Ethernet Cables Catalog (Cat. No. G019) for details.

^{*3} Refer to the Industrial Switching Hubs Catalog (Cat. No. V227) for details.

^{*4} Refer to the Sysmac Catalog (Cat. No. P072) for details.

^{*5} Refer to the Sysmac Library Catalog (Cat. No. P106) for details.



Sysmac Library

The Sysmac Library is a collection of software functional components that can be used in programs for the NJ/NX Machine Automation Controllers.

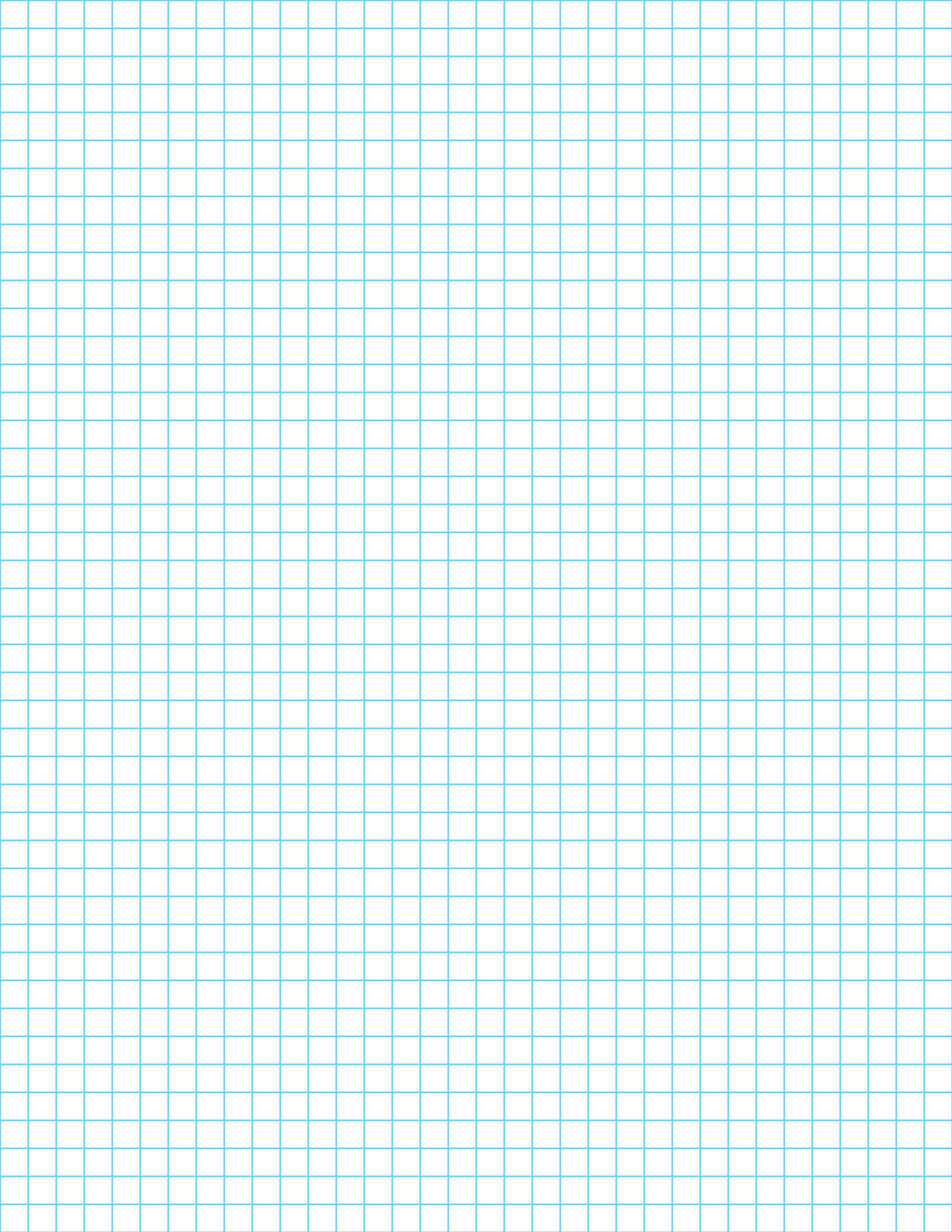
Please download it from following URL and install to Sysmac Studio Automation Software.

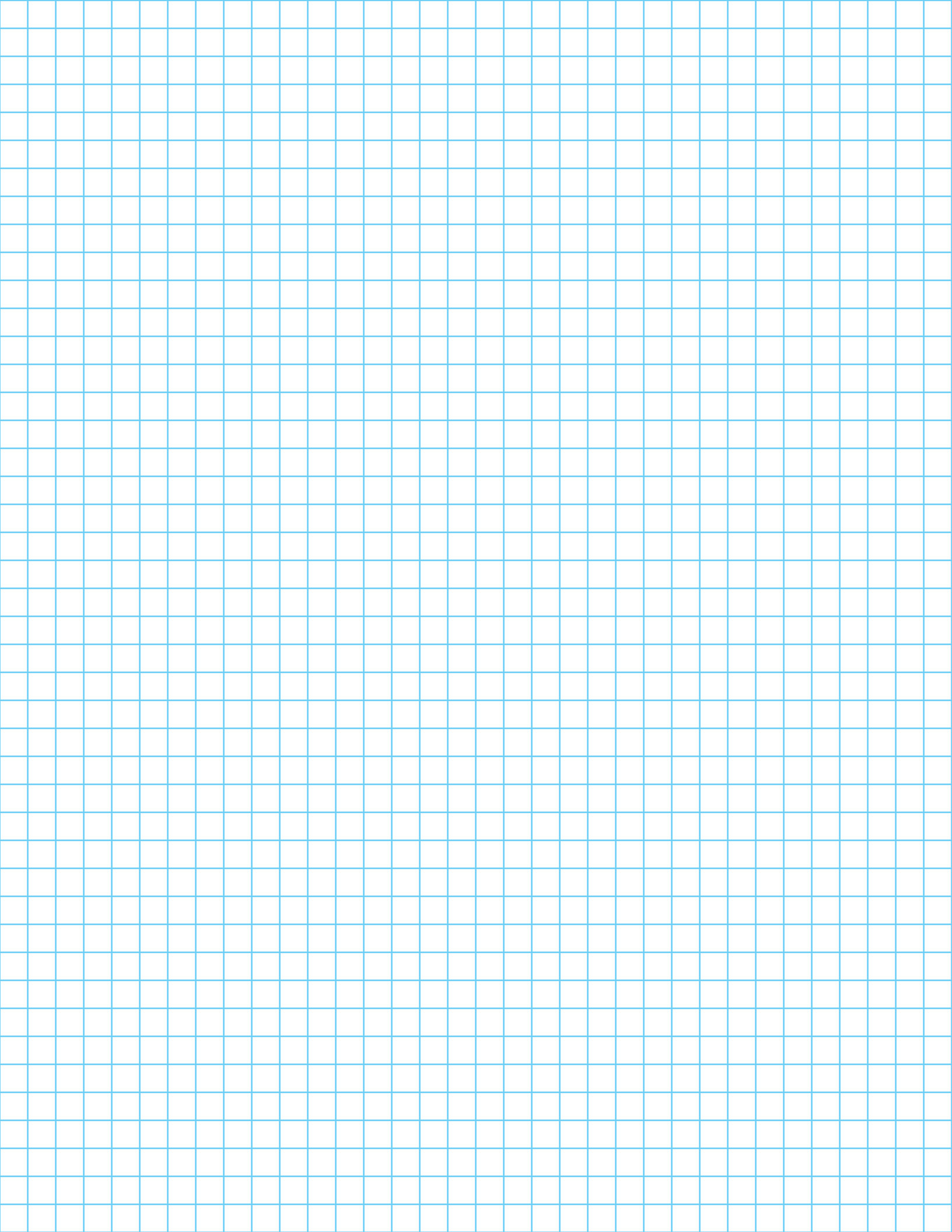
http://www.ia.omron.com/sysmac_library/

The Adept Robot Control Library allows you to control parallel, SCARA, and articulated robots manufactured by Omron Adept Technologies Inc. from the NJ/NX Machine Automation Controller by using the same instructions and programming methods.

Related Documentation

Manual
Robot Safety Guide
Cobra 350 Robot User's Guide
Cobra 350 Robot ePLC Quick Setup Guide
eCobra 600, 800, and 800 Inverted Robots User's Guide
eCobra 600, 800, and 800 Inverted Robots ePLC Quick Setup Guide
Hornet 565 Robot Quick Setup Guide
Hornet 565 Robot User's Guide
Quattro 650H/650HS/800H/800HS User's Guide
Quattro 650H/650HS/800H/800HS ePLC Quick Setup Guide
Viper 650/850 Robot with eMB-60R User's Guide
Viper 650/850 ePLC Quick Setup Guide
T20 Pendant User's Guide
SmartController EX user's guide
ACE User's Guide
eV+ Language User's Guide
eV+ Language Reference Guide
eV+ Operating System User's Guide
eV+ Operating System Reference Guide
SmartVision MX User's Guide
ACE Sight Reference Guide





OMRON AUTOMATION AMERICAS HEADQUARTERS • Chicago, IL USA • 847.843.7900 • 800.556.6766 • www.omron247.com

OMRON CANADA, INC. • HEAD OFFICE

Toronto, ON, Canada • 416.286.6465 • 866.986.6766 • www.omron247.com

OMRON ELECTRONICS DE MEXICO • HEAD OFFICE

México DF • 52.55.59.01.43.00 • 01-800-226-6766 • mela@omron.com

OMRON ELECTRONICS DE MEXICO • SALES OFFICE

Apodaca, N.L. • 52.81.11.56.99.20 • 01-800-226-6766 • mela@omron.com

OMRON ELETRÔNICA DO BRASIL LTDA • HEAD OFFICE

São Paulo, SP, Brasil • 55.11.2101.6300 • www.omron.com.br

OMRON ARGENTINA • SALES OFFICE

Cono Sur • 54.11.4783.5300

OMRON CHILE • SALES OFFICE

Santiago • 56.9.9917.3920

OTHER OMRON LATIN AMERICA SALES

54.11.4783.5300

OMRON EUROPE B.V. • Wegalaan 67-69, NL-2132 JD, Hoofddorp, The Netherlands. • +31 (0) 23 568 13 00 • www.industrial.omron.eu

Authorized Distributor:

Controllers & I/O

- Machine Automation Controllers (MAC) • Motion Controllers
- Programmable Logic Controllers (PLC) • Temperature Controllers • Remote I/O

Robotics

- Industrial Robots • Mobile Robots

Operator Interfaces

- Human Machine Interface (HMI)

Motion & Drives

- Machine Automation Controllers (MAC) • Motion Controllers • Servo Systems
- Frequency Inverters

Vision, Measurement & Identification

- Vision Sensors & Systems • Measurement Sensors • Auto Identification Systems

Sensing

- Photoelectric Sensors • Fiber-Optic Sensors • Proximity Sensors
- Rotary Encoders • Ultrasonic Sensors

Safety

- Safety Light Curtains • Safety Laser Scanners • Programmable Safety Systems
- Safety Mats and Edges • Safety Door Switches • Emergency Stop Devices
- Safety Switches & Operator Controls • Safety Monitoring/Force-guided Relays

Control Components

- Power Supplies • Timers • Counters • Programmable Relays
- Digital Panel Meters • Monitoring Products

Switches & Relays

- Limit Switches • Pushbutton Switches • Electromechanical Relays
- Solid State Relays

Software

- Programming & Configuration • Runtime