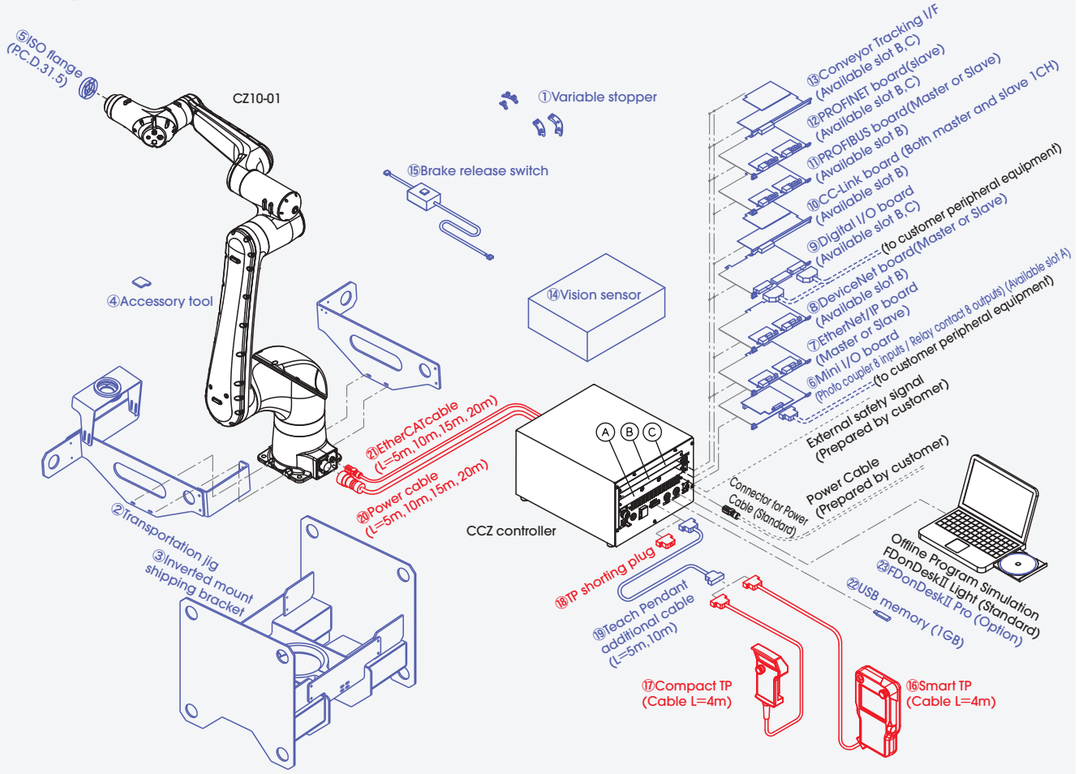
Option List



●Red Mark: Selectable Essential Option ●Blue Mark: Option

Please install options according to option installation instructions. TP=Teach Pendant

No.	Item	Specification	Parts NO.
①	Variable stopper	For axis 1	OP-S5-040
		For axis 2	OP-A5-038
		For axis 3	OP-A6-035
②	Transportation jig	Crane transport jig	OP-S2-053
③	Inverted installation jig	Jig for inverted installation	OP-S7-013
④	Accessory tool	Zero point positioning block	OP-T2-104
⑤	ISO Flange	P.C.D.31.5	OP-W2-016
⑥	Small I / O board	I / O optocoupler input 8 / NPN transistor output 8	CFD-OP150-A
		I / O optocoupler input 8 / Relay output 8 points	CFD-OP150-B
⑦	EthernetIP board	Master 1 CH	CFD-OP130-A
		Slave 1 CH	CFD-OP130-B
		Master 1CH + Slave 1 CH	CFD-OP130-C
		Slave 2 CH	CFD-OP130-D
		Master 2 CH	CFD-OP130-E
⑧	Device net board	Master 1 CH	CFD-OP131-A
		Slave 1 CH	CFD-OP131-B
		Master 1CH + Slave 1 CH	CFD-OP131-C
		Slave 2 CH	CFD-OP131-D
		Master 2 CH	CFD-OP131-E
⑨	Digital I / O board	I/O optocoupler input 32/NPN transistor output 32	CFD-OP125-A
		I/O optocoupler input 64/NPN transistor output 64	CFD-OP125-B
		I/O optocoupler input 32/PNP transistor output 32	CFD-OP151-A
		I/O optocoupler input 64/PNP transistor output 64	CFD-OP151-B
⑩	CC-Link board	Both master and slave 1CH	CFD-OP98-B

No.	Item	Specification	Parts NO.
⑪	Profibus board	Master 1 CH	CFD-OP132-A
		Slave 1 CH	CFD-OP132-B
		Master 1CH + Slave 1 CH	CFD-OP132-C
		Slave 2 CH	CFD-OP132-D
		Master 2 CH	CFD-OP132-E
⑫	Profinet board	Slave 1CH	CFD-OP136-B
		Slave 2CH	CFD-OP136-D
⑬	Conveyer synchronous interface	RS 422 differential input encoder counter	CFD-OP47-A
⑭	Visual device	Visual Sensor Unit for Controller (Separate Type)	CFD-OP139-A
⑮	Brake release switch	Manual brake release option(External unit)	CCZ-OP90-A-L
⑯	High performance Teach Pendant	Cable length 4m	CFDTP-10-04M
⑰	Mini Teach Pendant	Cable length 4m	MINITP-10-04M
⑱	Teach Pendant short circuit plug	Use when TP is not used	CFD-OP153-A
⑲	Teach Pendant extension cable	5m	CFDTP-RC05M
		10m	CFDTP-RC10M
⑳	Power cable	5m	CZ101Z-J1P-05-A
		10m	CZ101Z-J1P-10-A
		15m	CZ101Z-J1P-15-A
		20m	CZ101Z-J1P-20-A
㉑	EtherCAT Cable	5m	CZ101Z-J1C-05-A
		10m	CZ101Z-J1C-10-A
		15m	CZ101Z-J1C-15-A
		20m	CZ101Z-J1C-20-A
㉒	USB memory(1GB)	1GByte	FD11-OP93-A
㉓	FD on DESK Ⅱ Pro	Robot program simulator	FDONDESK2-Pro

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CATALOG NO. R7770E
2018.05.Y-ABE-ABE

NACHI

Slim Collaborative-Robot

CZ10

Slim Collaborative Robot

Collaborative people-friendly design

Nachi's new robot, CZ10, has several people-friendly functions and structures
Makes it easier to install a robot with various applications.

Stops safely when contact is made with person.

Stops when collision is detected.

Easy Programming

Pinch Points Eliminated

User-friendly Design

Pinch points and sharp edges eliminated for safer human interaction.

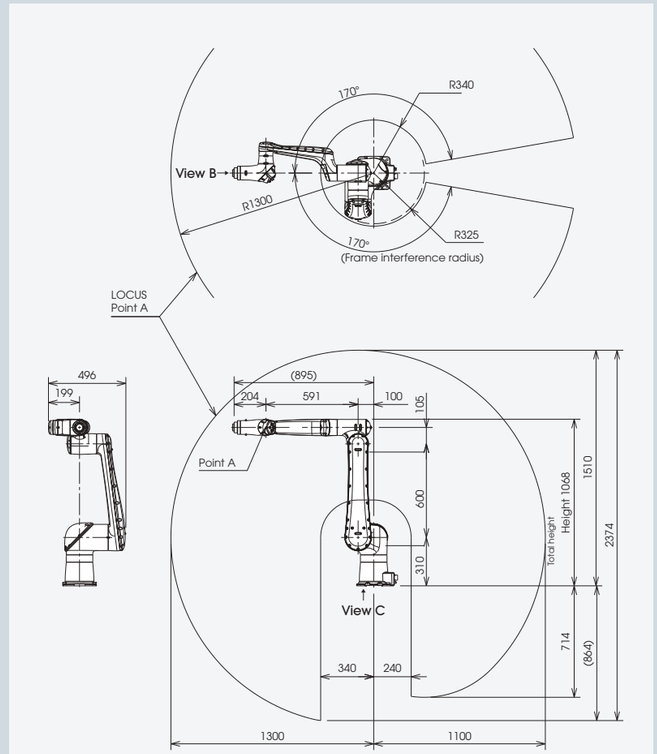
Basic Specification of Robot

Item		Specification
Robot type		CZ10
Number of axis		6
Drive system		AC servo motor
Max. working envelope *1	Axis 1	±2.96rad(±170°)
	Axis 2	-1.30 ~+ 3.92rad(-75 ~+ 225°)
	Axis 3	-1.34 ~+ 3.96rad(-77 ~+ 227°)
	Axis 4	±3.14rad(±180°)
	Axis 5	±2.96rad(±170°)
	Axis 6	±6.28rad(±360°)
Max. speed *1	Axis 1	2.09rad/s(120°/s)
	Axis 2	2.09rad/s(120°/s)
	Axis 3	3.14rad/s(180°/s)
	Axis 4	3.14rad/s(180°/s)
	Axis 5	3.14rad/s(180°/s)
	Axis 6	3.14rad/s(180°/s)
Max. payload*1	Wrist	10kg
Allowable static load torque*1	Axis 4	25.9N·m
	Axis 5	25.9N·m
	Axis 6	5.9N·m
Allowable moment of inertia *2	Axis 4	0.75kg·m^2
	Axis 5	0.75kg·m^2
	Axis 6	0.08kg·m^2
Position repeatability *3		±0.1mm
Max. reach		1300mm
Air piping		ϕ4×1
Application signal line		DI×4,DO×3
Installation *4		Floor/Inverted
Ambient conditions		Temperature: 0～45°C*5 Humidity: 20～85%RH (No dew condensation) Vibration to the installation face: 0.5G(4.9m/s2)or less
Dust-proof Drip-proof performance *6		IP54 equivalent (dust and drain proof-type)
Robot mass		61kg
Safety certification		ISO 10218-1(Equivalent) TS 15066(Equivalent)

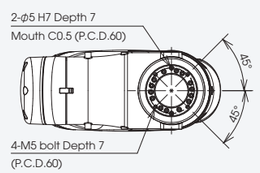
1(rad) = 180/π(°), 1(N·m) = 1/9.8(kgf·m)
*1: The "Max. speed" in this table is the available maximum value and will change depending on the work-program and the wrist load condition.
*2: The allowable moment of inertia of wrist changes with load conditions.
*3: Based on JIS B8432
*4: Range of motion limited when robot is invert mounted.
*5: Permitted installation is less than 1,000m above sea level.
Allowable operating temperature dependent on installation height.
*6: Limit use in applications where liquids, such as, organic compound, acidity, alkalinity, chlorine, gasoline and/or cutting fluids. These could deteriorate seal material.
Wire harness is IP54 equivalent, controller is IP20 equivalent.

Contents written in this document do not ensure safety of system. Risk analysis of entire system is required to reduce the associated risk of the system.

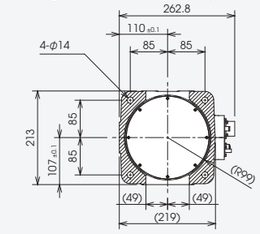
Robot Dimensions and Working Envelope



Wrist Dimensions (View B)



Installing Dimensions (View C)



Application examples

Mutual harmony with people

Assembly support

Sorting