

Standard Specifications

E94 Controller

June 10, 2020

Kawasaki Heavy Industries, Ltd.
Robot Business Division

Specification number : 90152-0086DEA

Controller specifications

1. Model (Robot type)	E94	
	YF (E94D)	RS010L/RS020N (E94F)
2. Dimensions	W500×D580×H268mm	
3. Construction ^{*1}	Open structure:	Direct cooling system, IP20 equivalent
	Enclosed structure (Opt.):	Indirect cooling system, IP54 equivalent
4. Controlled axes	4 axes	6 axes
5. Memory capacity	8MB	
6. I/O signals	External operation sig.:	Ext. Emergency Stop, Ext. HOLD signal etc.
	General-purpose I/O sig.:	GPIO board (Input 32/Output 32) ^{*3} NPN(Sink) type or PNP(Source) type
7. Cable length	Robot-controller:	5m (Opt.10m/15m)
	Teach pendant:	5m (Opt.10m/15m)
8. Mass	40kg	
9. Power requirements	AC200-AC230V±10%, 50/60Hz, 1 phase Max. 4kVA	
10. Ground	Less than 100Ω (robot dedicated ground), Leakage current: max. 100mA	
11. Installation environment	Ambient temperature:	Open structure: 0 - 45°C
		Enclosed structure Opt.): 0 - 40°C
	Relative humidity:	35 - 85% (non-condensation)
12. Teach Pendant	Color LCD with touch panel Emergency Stop SW, Teach Lock SW and Enable SW	
13. Operation panel	Emergency Stop SW, Teach/Repeat SW	
14. External interface	Ethernet(100BASE-TX/10BASE-T), USB, RS-232C : each 2port (1port on panel, 1port inside controller)	
15. Type of control	Teach mode:	Joint, Base, Tool operation mode (option) Fixed Tool operation mode
	Repeat mode:	Joint, Linear interpolation mode (option) Circular interpolation mode
16. Teaching method	Easy operation teaching or AS language programming	
17. Color	Munsell: 10GY9/1 equivalent	
18. Safety Circuit	Category: 3, Performance Level: PL d (EN ISO13849-1) ^{*2}	
19. Options		
Enclosed structure	Additional parts set for enclosed structure	
Additional GPIO	GPIO board (Input 32/Output 32) ^{*3} NPN(sink) type or PNP(source) type	
I/O signal connector	D-SUB 37 pin (male/female) with cover	
Teach Pendant option	Connector for TP less	
Operation panel option	Fast check mode Switch	
External memory	USB memory	
PC cable (RS-232C)	1.5m, 3m	
Motor brake release	Manual brake release switch	
Others	GP Field BUS ^{*3} , Software PLC, Analog input/output ^{*3} , Conveyor Synchronization, Vision application and so on	

Consult Kawasaki about maintenance parts and spare parts.

*1 The open structure (IP20 or equivalent) is protected against human contact to the dangerous parts inside the controller, but there is no protection against infiltration of water or small foreign matters. It can be used in an environment of up to pollution degree 2 as stipulated by IEC 60664-1. (Pollution degree 2 is an environment where conductive foreign matter, conductive dust, or water-containing dust does not occur, for example in an office or a clean factory.)

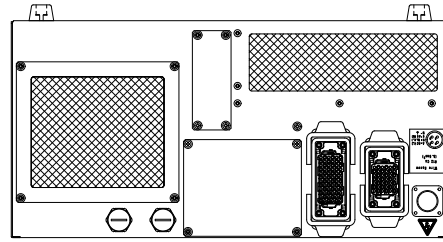
In an environment of pollution degree 3 such as the following, use an optional enclosed structure (IP54 or equivalent).

- An environment where dust exists in the surrounding, or where fine dust is abundant.
- An environment where conductive pollution or conductive pollution due to condensation may occur.
- An environment where water or water-containing foreign matters, etc., may infiltrate.

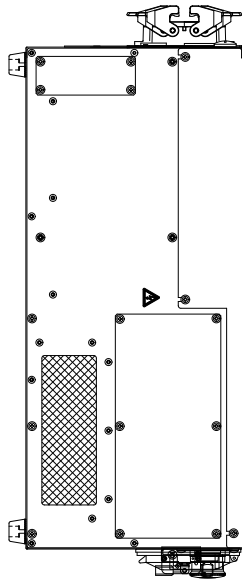
*2 Category and Performance level (PL) are determined by the whole system and conditions.

*3 Up to 3 option slots, be careful when choosing options.

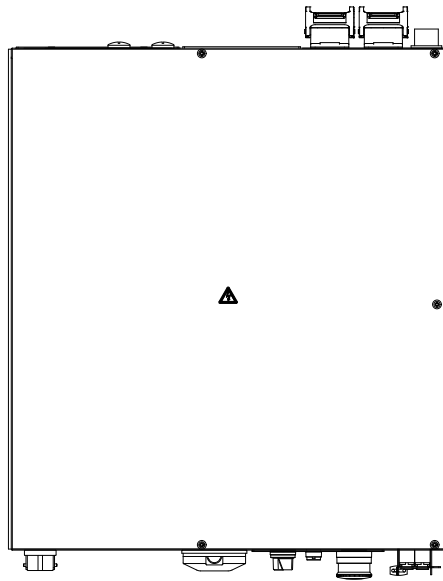
E94 CONTROLLER



REAR VIEW

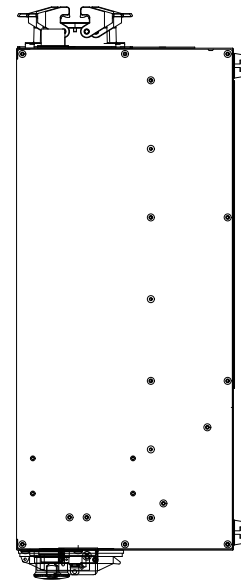


SIDE VIEW

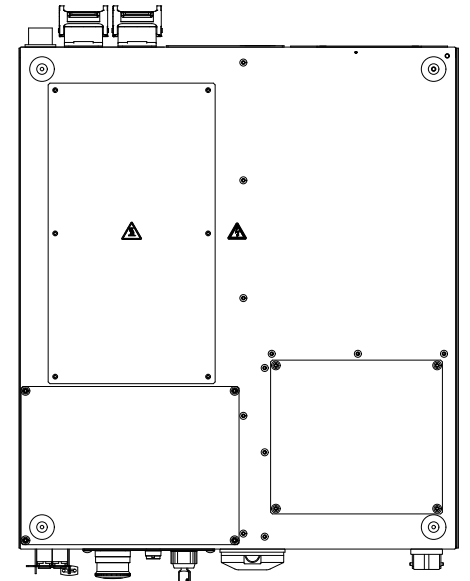


TOP VIEW

(50)
580
(34)

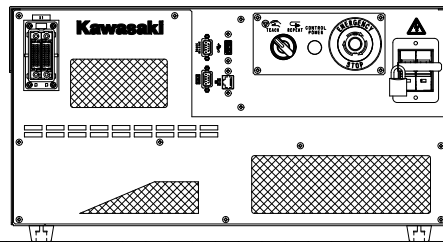
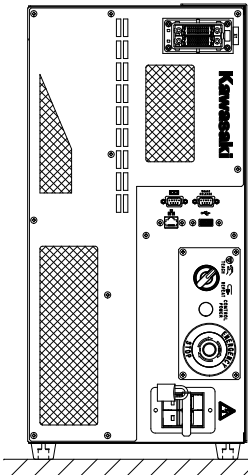


SIDE VIEW



BOTTOM VIEW

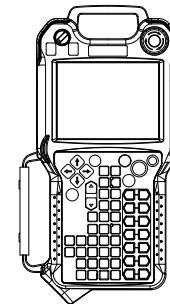
Vertical Mount



FRONT VIEW

250
18

500



Teach Pendant