Kawasaki Robotics

Standard Specifications

F25 Controller
F35 Controller
F45 Controller

1st Edition : February-5, 2024

Kawasaki Heavy Industries, Ltd.
Robot Business Division

Specification number : 90152-0104DEA

Materials and specifications are subject to change without notice.

Controller specifications

1. Model	F25		F35	F45	
(Main available robot)	K series				
2. Dimensions	W560 × D415 × H790 mm				
3. Structure	Enclosed structure	: Indirect cooling system, IP54 equivalent			
4. Controlled axes	Std. 7 (Max 9)				
5. Memory capacity	16MB				
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)			
7. Cable length	Robot cable	: Inside of booth 3m (Opt. 3/5/7/10/15m)			
	(Max. Total 40m)	: Outside of booth 3m (Opt. 1/3/5/7/10/15/20/25/30m)			
	Teach pendant cable	: 10m (Opt. 3/5/7/10/15/20/25/30m)			
	(Max. Total 30m)	(Opt. Connector box harness 1/3/5/7/10/15/20/25m)			
8. Mass	70kg		95kg	100kg	
9. Power requirement	F25	: AC200V - AC220V ±10%, 50/60Hz, 3 phases			
	F35	: AC440V - AC480V ±10%, 60Hz, 3 phases			
	F45	: AC380V - AC415V ±10%, 50/60Hz, 3 phases			
	Max. 10kVA			Max. 9.9kVA	
10. Ground	PE, Leakage current: max. 100mA				
	Less than 10Ω (Dedicated for barrier) (for F25)				
11. Installation environment	Ambient temperature	: 0 - 45 ℃			
	Relative humidity	: 35 - 85 % (non-condensation)			
12. Teach Pendant	Color LCD with touch panel Emergency Stop SW, Teach Lock SW and Enable SW English/Chinese/Japanese Selectable				
13. Operation panel	Emergency Stop SW, Teach/Repeat SW				
14. External interface	Ethernet (1000Baset-T/100BASE-TX/10Base-T) : 2ports (inside controller) USB2.0 : 3ports (1port on panel, 2ports inside controller) RS-232C : 2ports (inside controller)				
15. Type of control	Teach mode	: Joint, Base, Tool, Fixed Tool (option) operation mode			
	Repeat mode	: Joint, Linear, Circular (option) interpolation mode			
16. Teaching method	Easy operation teaching or AS language programming				
17. Color	Munsell: 10GY9/1 equivalent				
18. Safety Circuit	Category: 4, Performance Level: e (EN ISO13849-1)[*1]				
19. Options					
External axes control	Additional amplifier and External axes harnesses				
Additional general purpose I/O	GPIO board (Input 32/Output 32) Max. 128				
Additional analog I/O	Analog board[*2] (Input 4/Output 4) Max. 8				
I/O signal connector	D-SUB 37 pin (male, female) with cover				
Teach Pendant option	Connector for TP less				
Motor brake release	Manual brake release switch				
Extended safety functions	CoreCubic-S option	Motion area monitoring, Joint monitoring, Speed monitoring, etc.			
		Safety I/O signal (In-cabinet)	Safety I/O board [*3] (Input 8, Output 8)		
Safety standards[*4]	-		-	CE	
Others	Field BUS (Master[*3], Slave), Software PLC, Controller cooling unit Conveyor Synchronization[*2], Air filter (cooling fan air section), Opt. Operation panel Cabinet light, Paint Equipment Control				

Consult Kawasaki about maintenance parts and spare parts.

*1 Category and Performance level (PL) are determined by the whole system and conditions.
The safety circuit of this controller is available in the system of category: up to 4, PL: up to e.

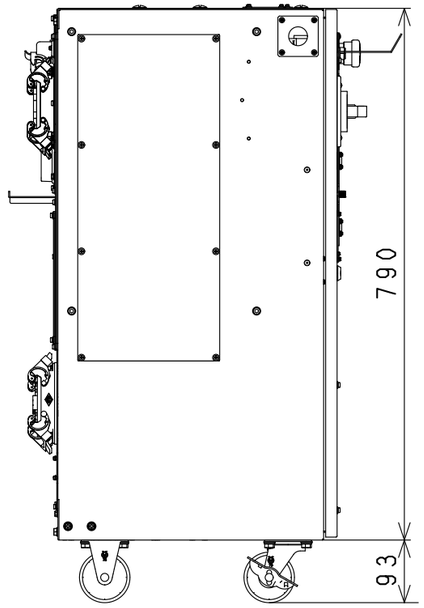
*2 The option slot for the part shown in *2 is 2 slots, be careful when choosing options.
Option slots are used as options below.
・Analog I/O
・Conveyor Synchronization (3ch, 4ch)

*3 The option slot for the part shown in *3 is 3 slots, including 2 slots that can be used for the PCIe board, be careful when choosing options. Option slots are used as options below.
・Field bus (Master) : PCIe board
・Safety I/O board (Max. 2 boards, Input/Output is compatible with Max. 16/16.)

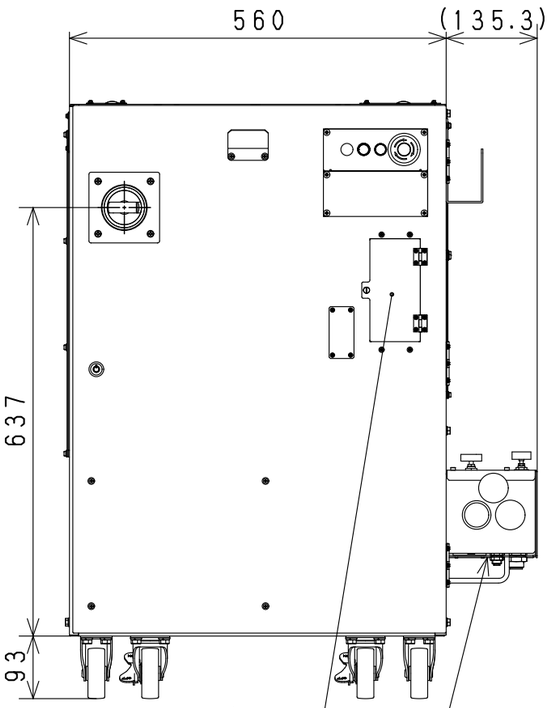
*4 The controller complies with safety standards, but some robot arms do not,
so please contact us for details.

F25/F35 CONTROLLER

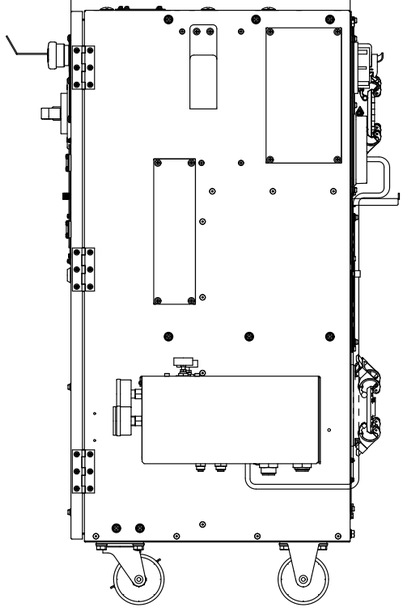
SIDE VIEW



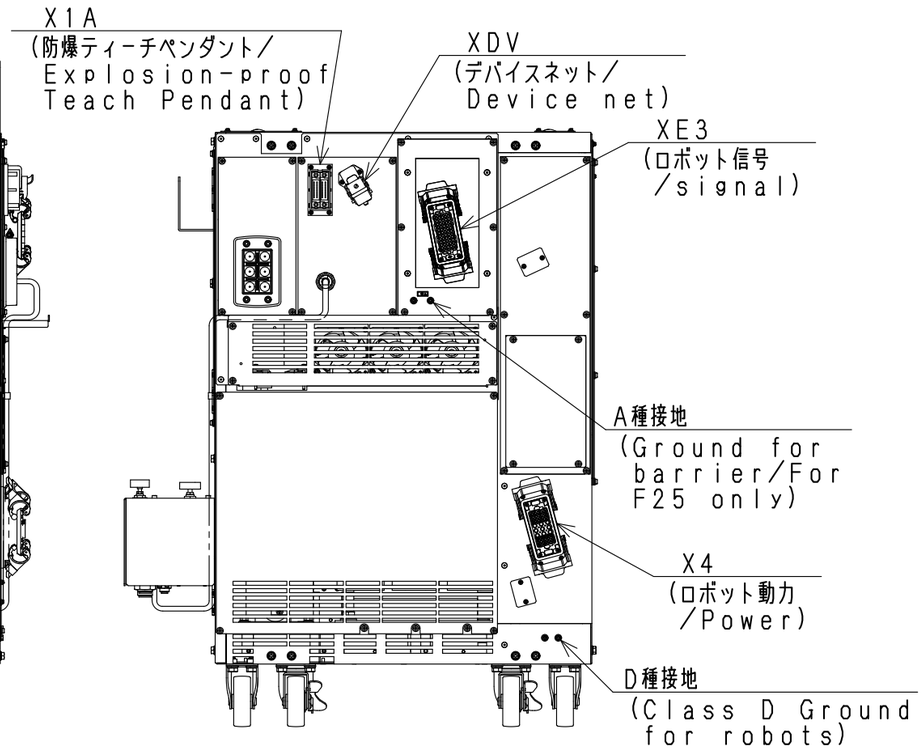
FRONT VIEW



SIDE VIEW

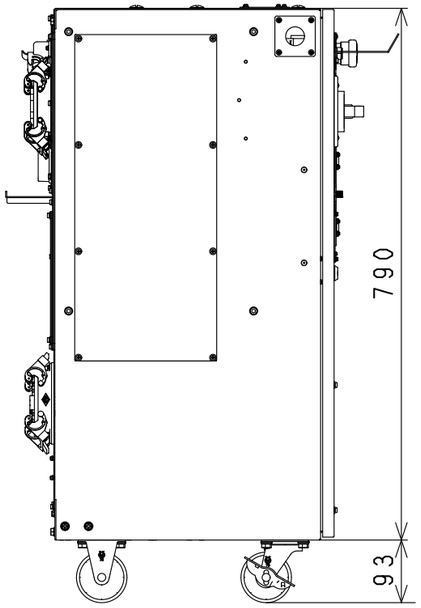


REAR VIEW

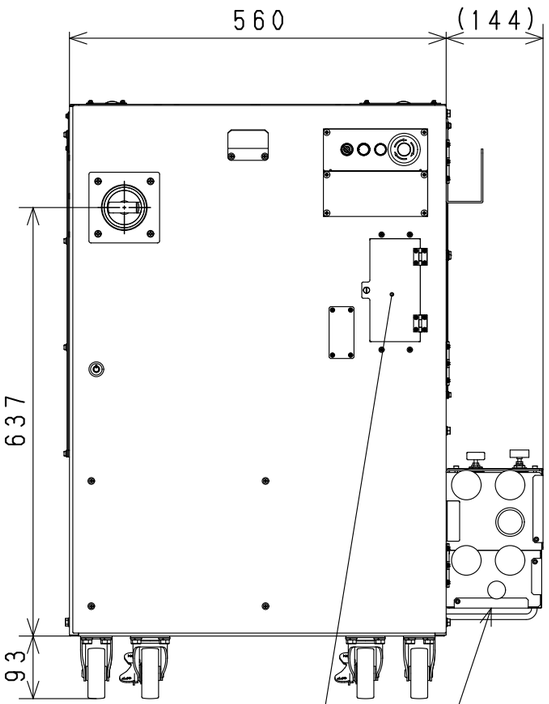


F45 CONTROLLER

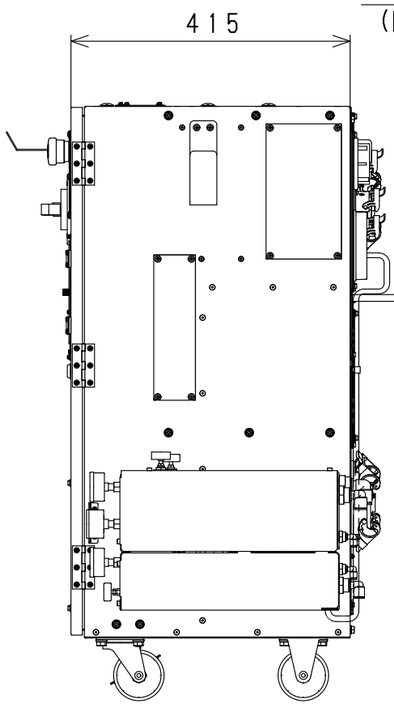
SIDE VIEW



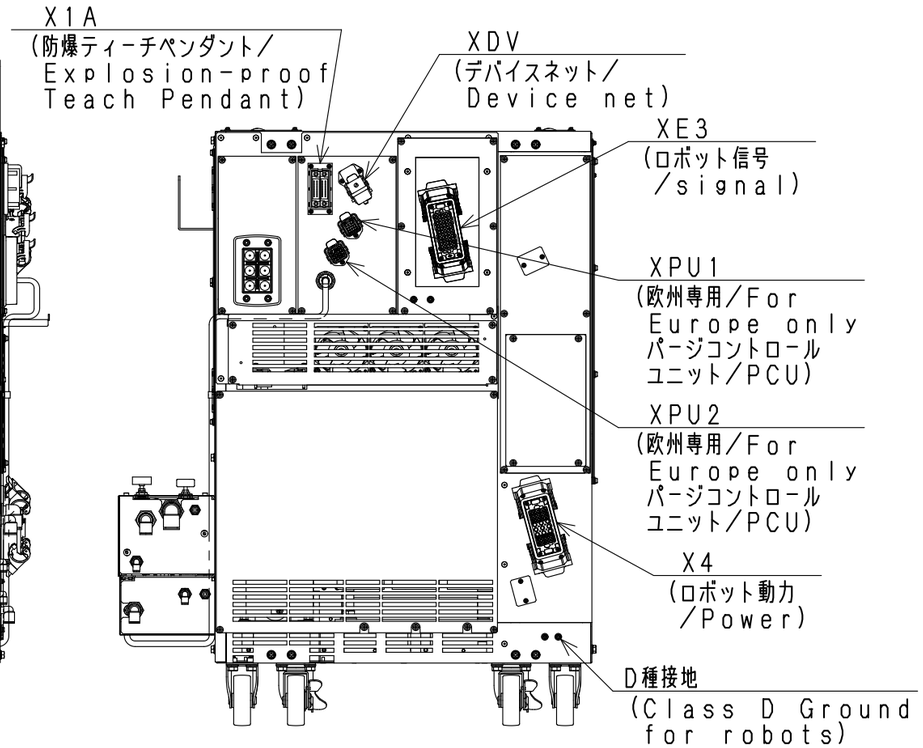
FRONT VIEW



SIDE VIEW



REAR VIEW



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