



Standard Specifications

F25 Controller

F35 Controller

F45 Controller

1st Edition : February-5, 2024

2nd Edition : October-2, 2025

Kawasaki Heavy Industries, Ltd.

Robot Business Division

Specification number : 90152-0104DEB

Controller specifications

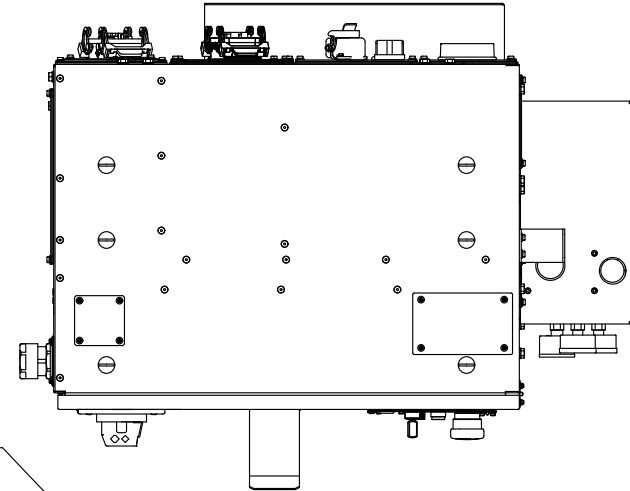
1. Model	F25	F35	F45
(Main available robot)	K series		
2. Dimensions	W560 × D415 × H790 mm		
3. Structure	Enclosed structure : Indirect cooling system, IP54 equivalent		
4. Controlled axes	Std. 7 (Max 9)		
5. Memory capacity	16MB		
6. I/O signals	External operation sig. : Ext. Emergency Stop, Ext. HOLD 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 °C		
	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 (1000Base-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 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.

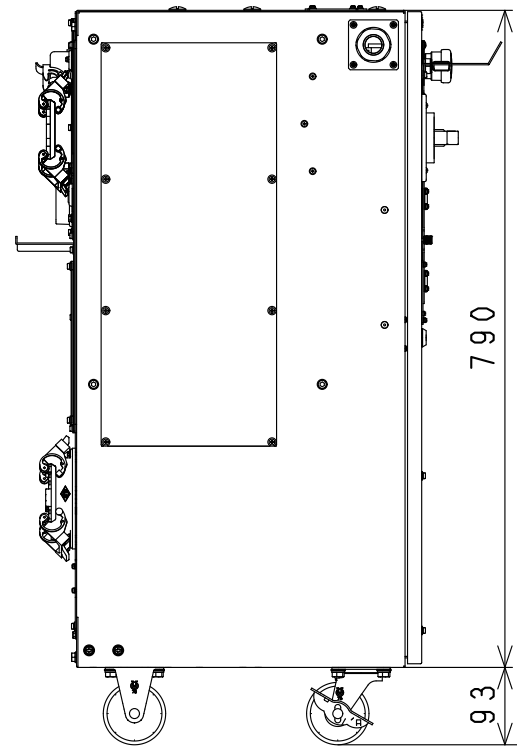
F25/F35 CONTROLLER

TOP VIEW

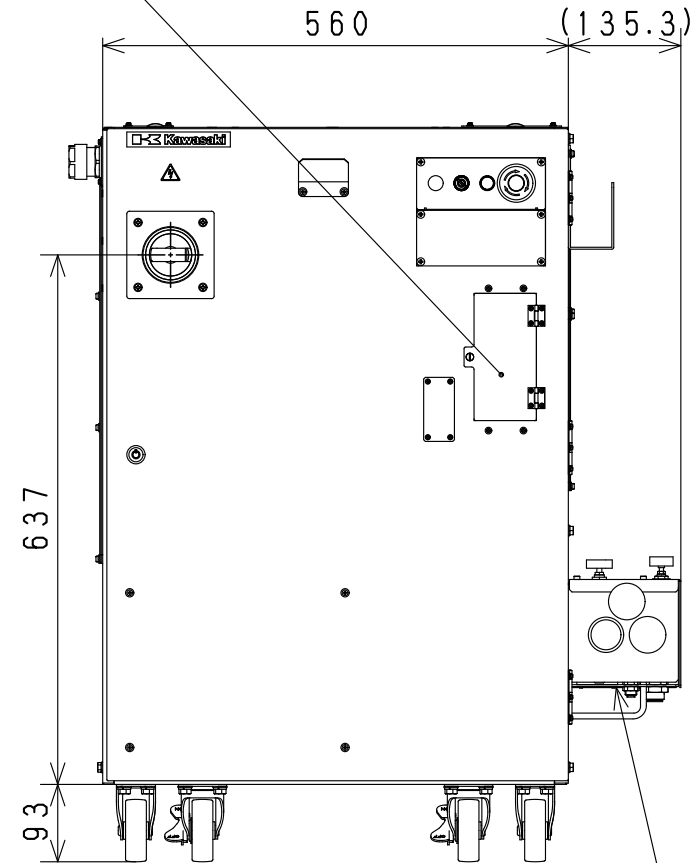


USB memory I/F
Brake Release I/F

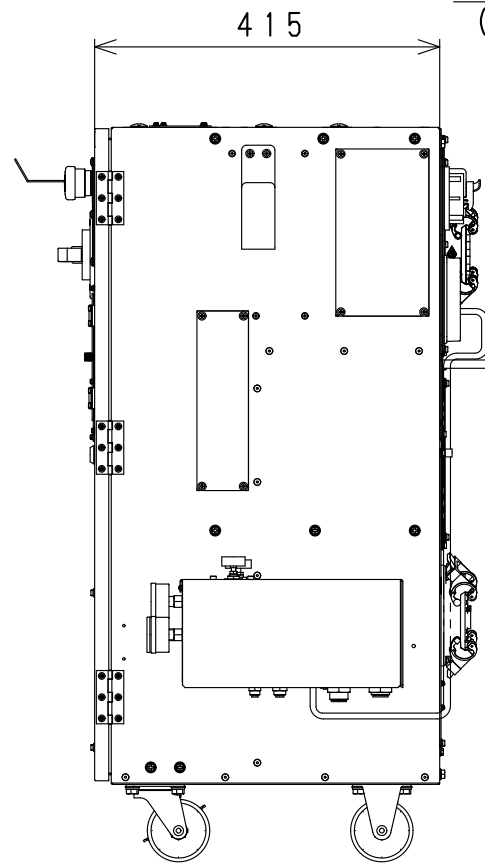
SIDE VIEW



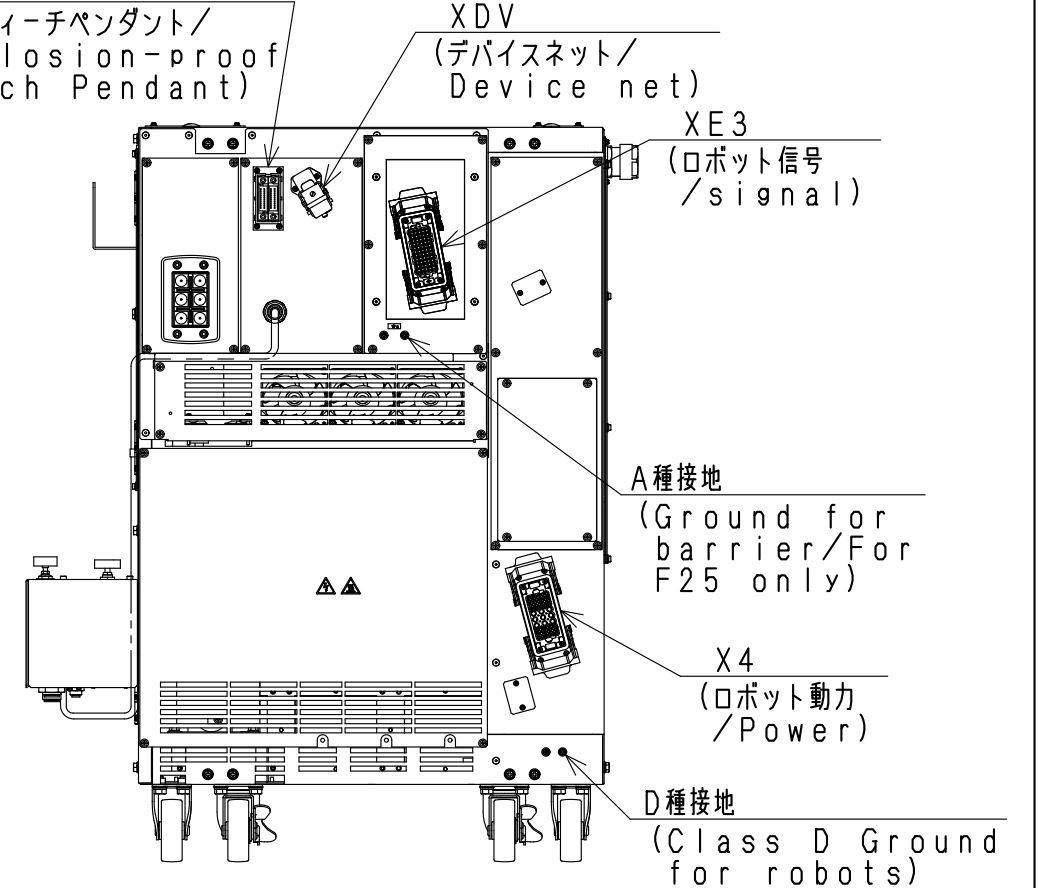
FRONT VIEW



SIDE VIEW



REAR VIEW



X1A
(防爆ティーチペンダント/
Explosion-proof
Teach Pendant)

XDV
(デバイスネット/
Device net)

XE3
(ロボット信号
/signal)

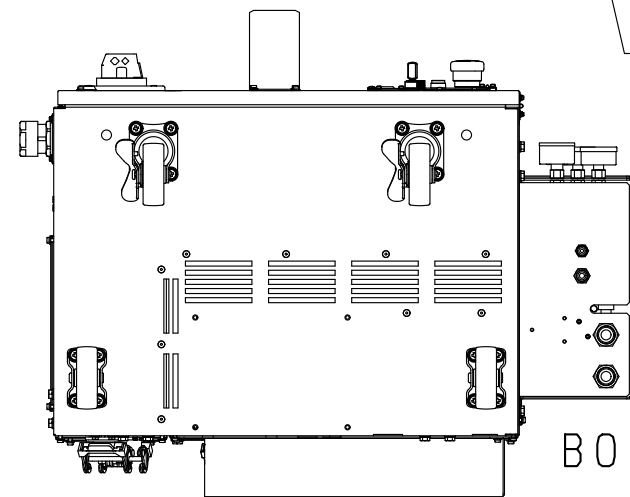
A種接地
(Ground for
barrier/For
F25 only)

X4
(ロボット動力
/Power)

D種接地
(Class D Ground
for robots)

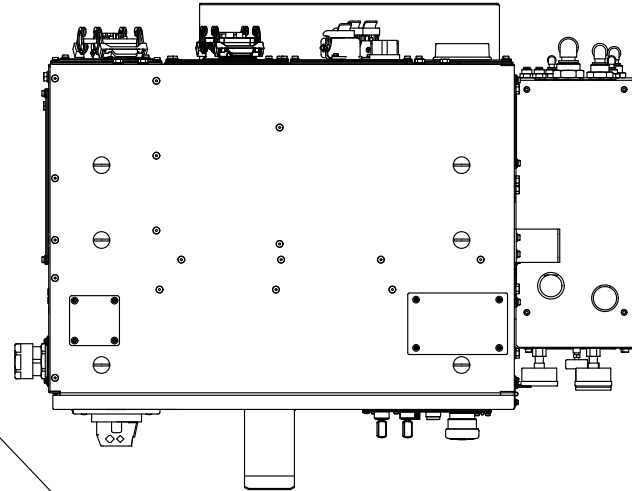
エア供給ユニット (KJ12/15仕様のみ)
Air supply unit
(For KJ12/15 spec only)

BOTTOM VIEW



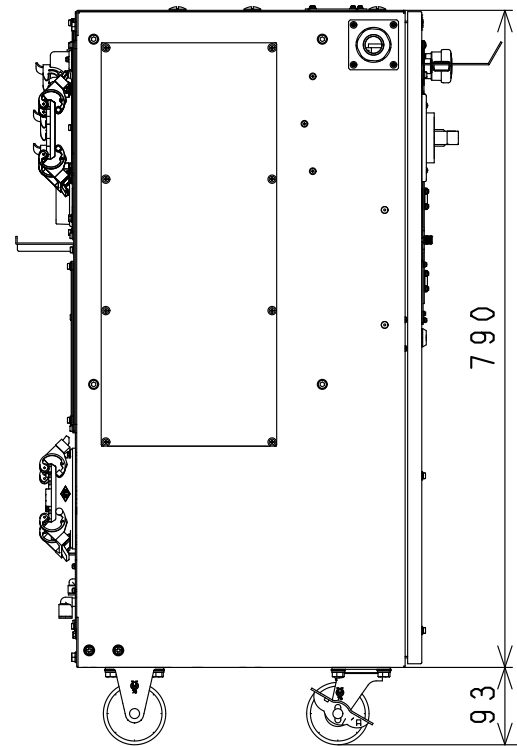
F45 CONTROLLER

TOP VIEW

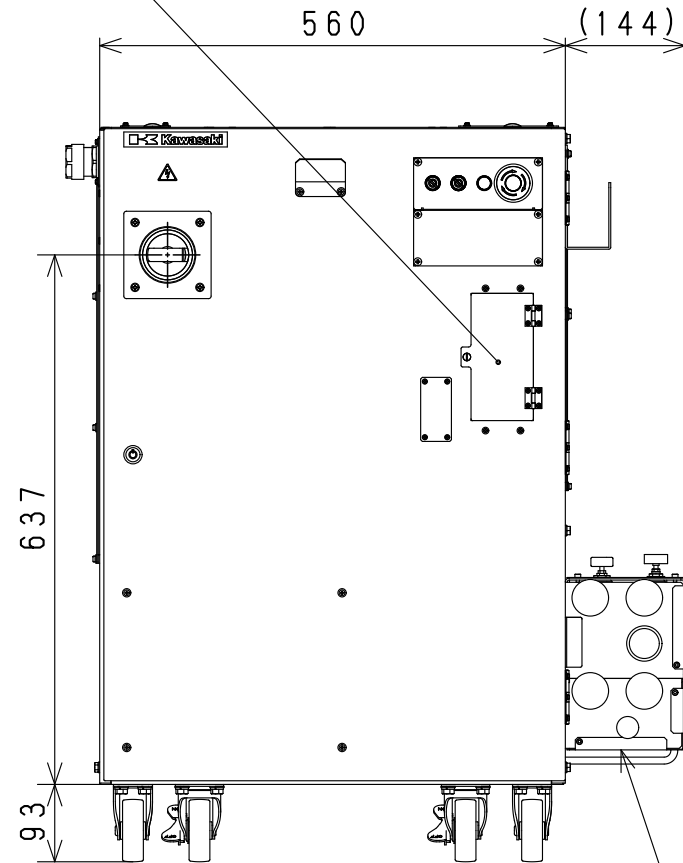


USB memory I/F
Brake Release I/F

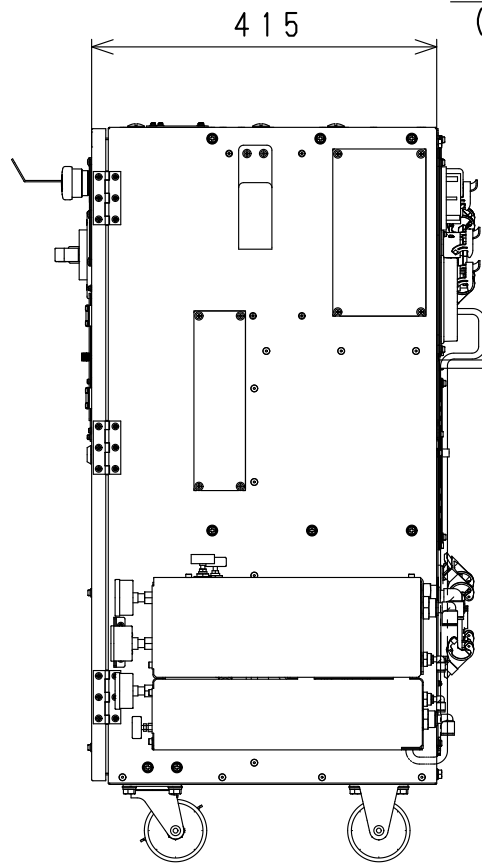
SIDE VIEW



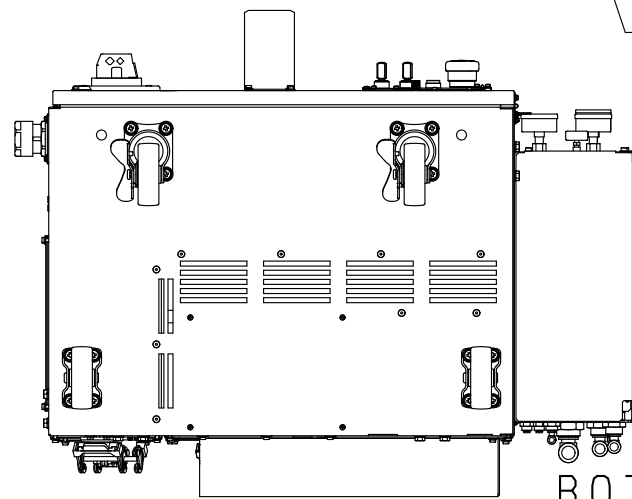
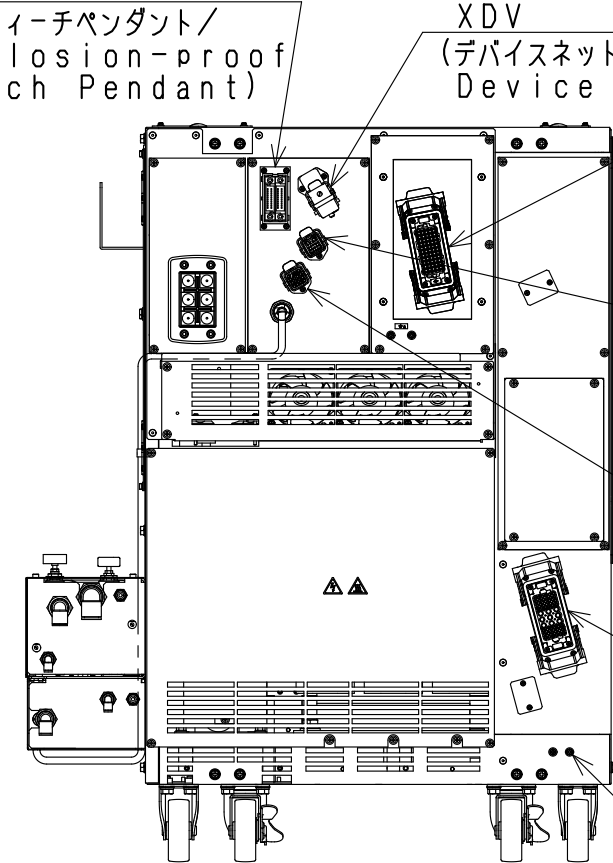
FRONT VIEW



SIDE VIEW



REAR VIEW



BOTTOM VIEW

エア供給ユニット (KHI PCU仕様)
Air supply unit
(KHI PCU spec.)

X1A
(防爆ティーチペンダント/
Explosion-proof
Teach Pendant)

XDV
(デバイスネット/
Device net)

XE3
(ロボット信号
/signal)

XPU1
(欧州専用/For
Europe only
パージコントロール
ユニット/PCU)

XPU2
(欧州専用/For
Europe only
パージコントロール
ユニット/PCU)

X4
(ロボット動力
/Power)

D種接地
(Class D Ground
for robots)