



Space Saving Relay Terminal Block Interface

PX7FR

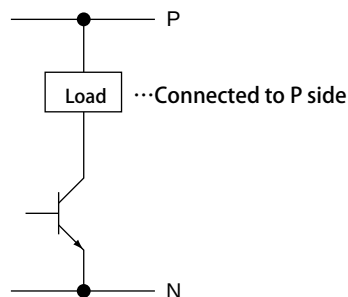
series

PX7FR series

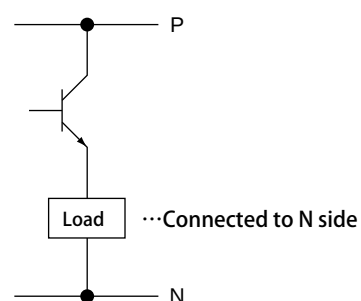
Features

- 25% smaller than other relay terminals.
- Select from 16 and 32 I/O points.
- Connect to both NPN and PNP devices

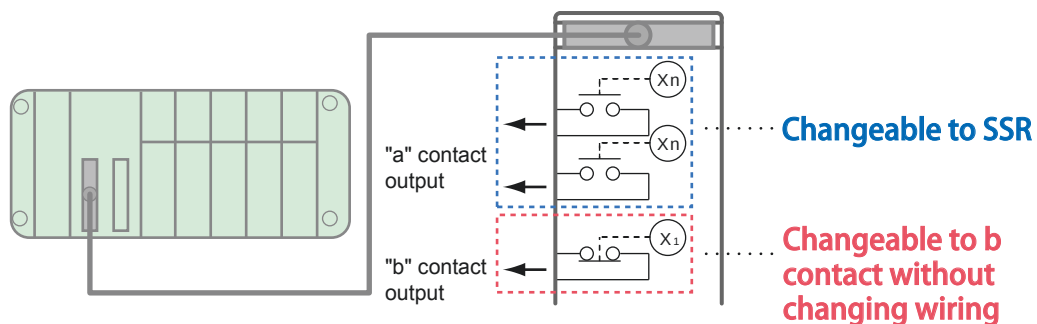
● PNP for input and output



● NPN for output



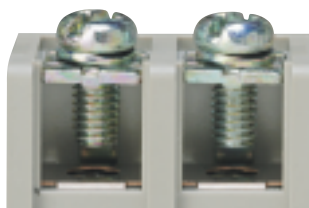
- Select B contact SSR* specifications by changing SSRs.
*Solid State Relay



- Mounting on 35mm DIN rail is available.
- 3 types of terminal blocks are available.



Standard Terminal



Spring Lifted Terminal

How to order

PX 7FR 32 -V 6 - D02OP - CM F 2

Terminal Block

PS: Standard terminals
PX: Spring lifted terminals

I/O Qty.

16 : 16 Points
32 : 32 Points

Coating Specification

Blank: Paint once
2: Paint twice

F: Only parts side
R: Back (Soldered side)
W: Both side

Blank: No PCB Coating
CM : PCB Coating

Connector

Connector P / N	Manufacturer	Connector P / N	
		For 16 points	For 32 points
2	Omron	XG4A-2031	XG4A-4031
3	JAE	PS-20PE-D4T1-LP1	PS-40PE-D4T1-LP1
4	Hirose Connectors	HIF3BA-20PA-2.54DSA	HIF3BA-40PA-2.54DSA
6	Fujitsu	FCN364P024-AU (24P) *1	FCN-364P040-AU
10	Yamaichi Electronics	FAP-2001-1204-OBS	FAP-4001-1204-OBS
11	KEL	6201-020-256	6201-040-256
12	Daiichi Denshi Kogyo	FRC5-C20S53T-OL	FRC5-C40S53T-OL

*1) 24 pin connector

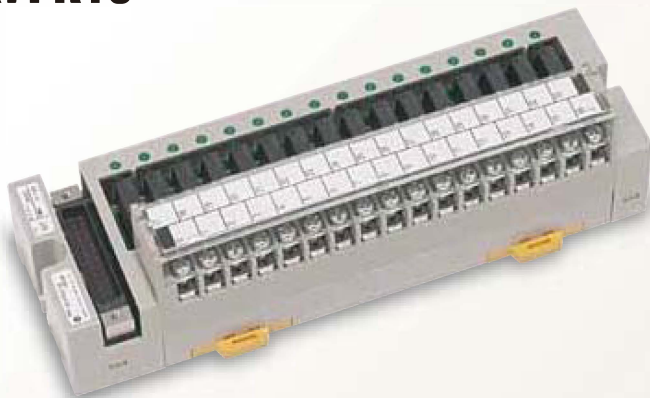
*Please see page 4 "Relay / SSR" list if you prepare SSR yourself.

Specifications

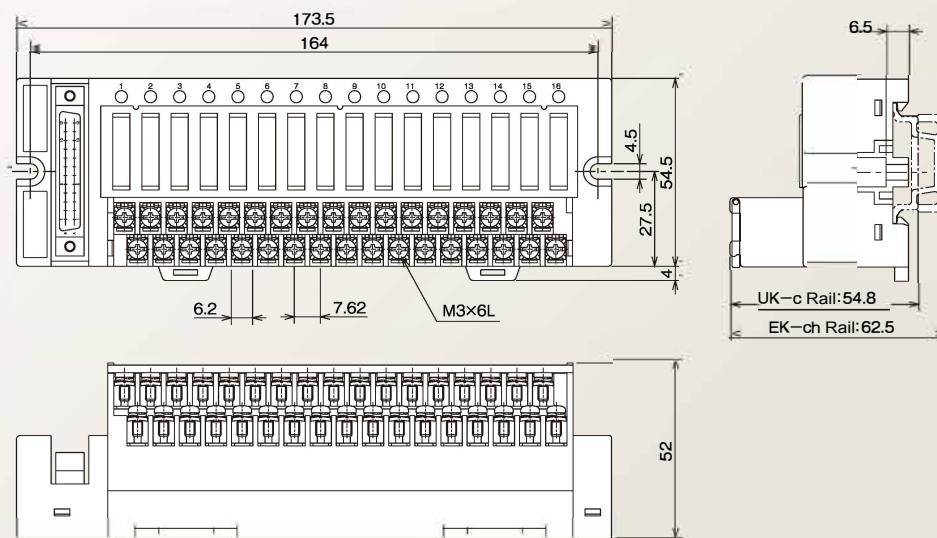
Rating*1)	Relay coil side (connector side)	DC24V
	Contact side (terminal blockside)	Resistance load : AC220V-2A/DC24V-2A Inductive load : AC220V-2A/DC24V-2A
Insulation Resistance		DC500V Mega more than 1000MΩ (* Between terminals and ground)
Withstand Voltage		AC2000V (50/60Hz) 1min (*Between terminals and ground)
Lightening Impulse		1.2/50μs, 4000V (* Between terminals and ground)
Vibration Resistant		Frequency :10~55Hz, Double amplitude :1.5mm
Shock Resistant		491m/s ² More than 50G (*Exept relay)
Recommended Wire		Maximum 1.25mm ² (Terminal Block side)
Recommended Crimp terminal		R1.25-3
Tightening Torque		0.5~0.8N · m (When using crimp terminal)
Relay failure rate "P standard"		DC0.1V-0.1mA
Ambient Temperature *Storage		-20~+55℃
Ambient Temperature *Operating		-25~+70℃
Relative Humidity		45~85%R.H.
Installed Relay		RB105-DE/DC24V (Fuji Electric)
Weight		PX7FR16 : 300g PX7FR32 : 600g

*1) Rating is not same as relay specifications.

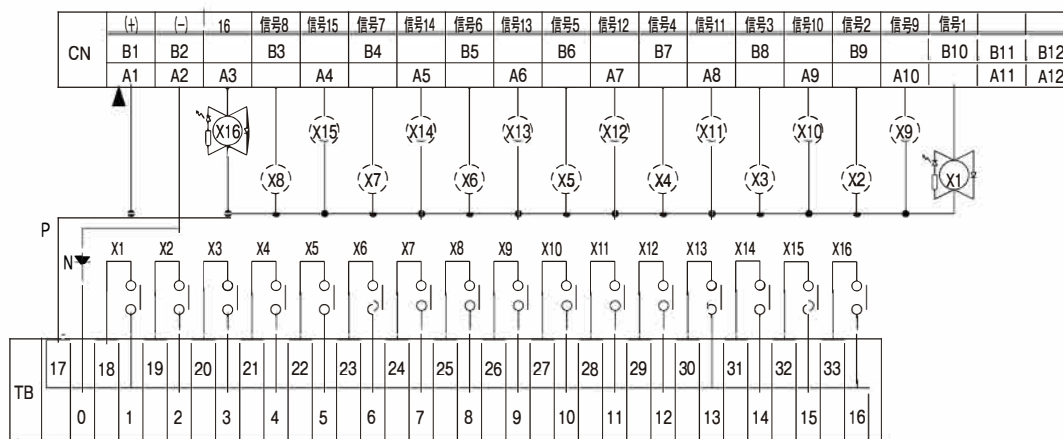
PX7FR16



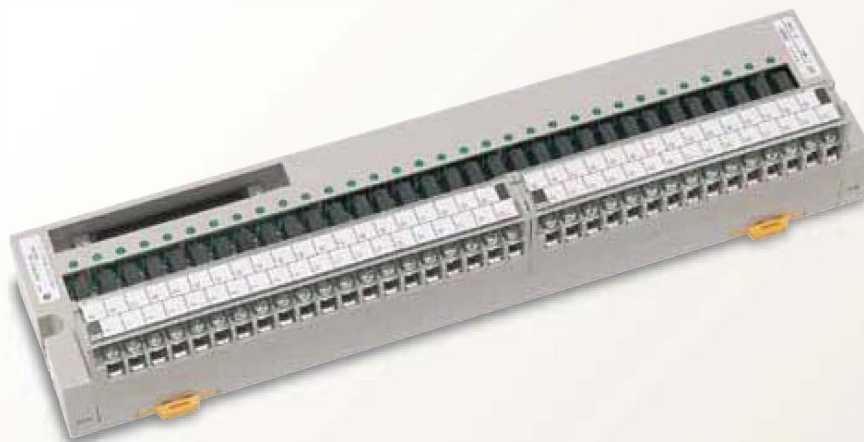
Dimensions



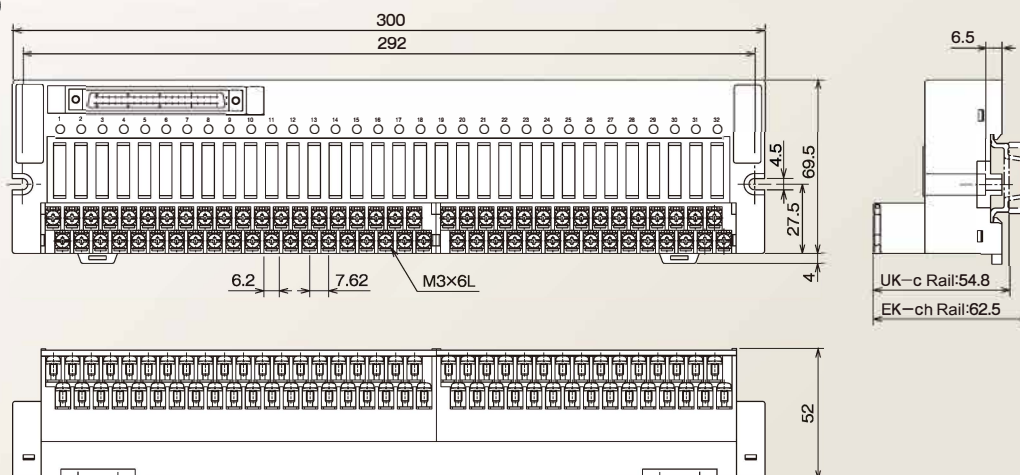
Circuit



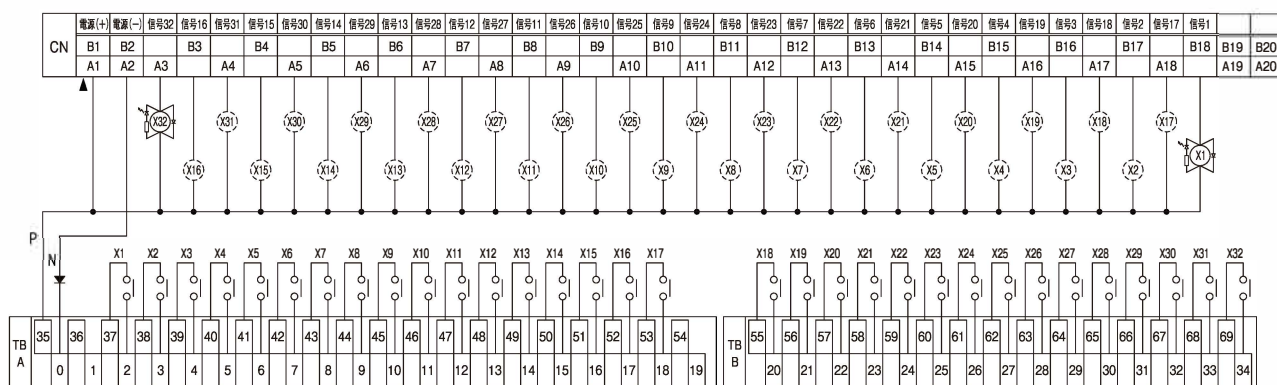
PX7FR32



Dimensions



Circuit



Caution

Replacing Relay

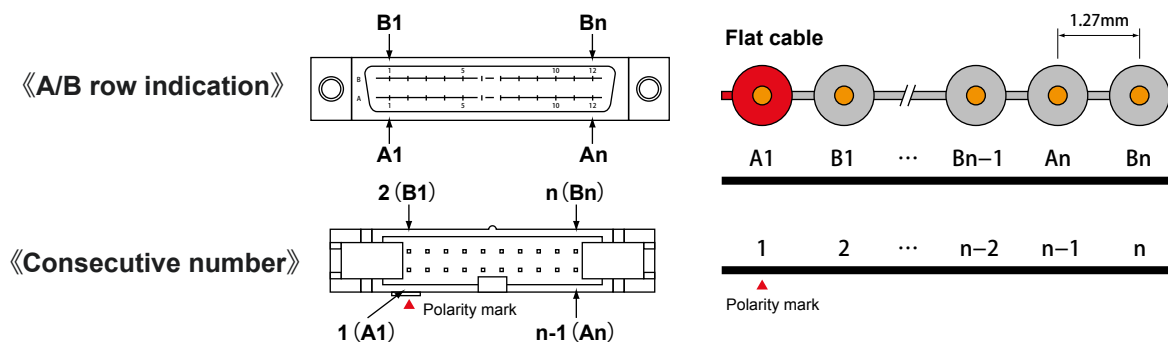
- Do not remove or insert relay while power is on. It may cause a failure and electric shock.

Wiring

- Be careful of wiring voltage and polarity of power or signal wires. A wrong wiring may cause failure.
- Do not remove or insert connector while power is on. It may cause a failure and electric shock.
- Verify the connector is properly installed.

Connector Pin Assignment

- Ensure connector pins are assigned properly.



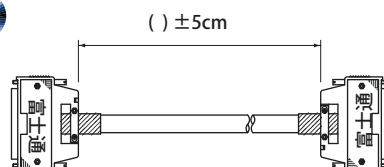
Recommended Tightening Torque

- 0.8~1.2N/m *When wiring without crimp terminal, Recommended tightening torque is 0.5 N /m)

Cable Assembling

● PLC Pre-wired Cable

Cable for 32 points I/O



() : Each additional cable order will be 10 cm

ex): 1 = 10 cm

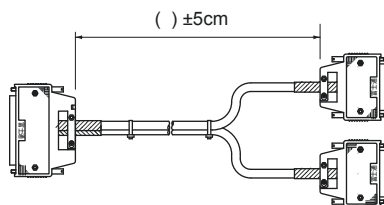
2 = 20 cm

10 = 100 cm

Interface Unit	I/O	Cable P / N	PLC maker	PLC P / N					
PX7FR32-V6 PS7FR32-V6	Input	32MI-AI-H0001-()	Mitsubishi	QX41	QX42	QX71	QX72		
				A1SX41	A1SX42	AX42			
	PNP Output	32MI-AOP-H0002-()		QY41P	QY42P				
				A1SY41	A1SY42	A1SY42P	AY42		
	NPN Output	32MI-AON-H0003-()		QY81P	A1SY81				
				DI235	DI335	DI335H			
	Input	32TO-AI-H0036-()	Toshiba	DI634	DI635				
				DO235	DO335	DO634	DO635		
	PNP Output	32TO-AOP-H0037-()	Omron	CJ1W-ID231/ ID261	CS1W-ID231/ID261				
				C200H-ID216/ID218	C200H-ID217/ID219				
	Yokogawa	F3XD32-3F/4F/5F		F3XD32-3N/4N/5N					
		F3X XD64-3F/4F		F3XD64-3N/4N					
	PNP Output	32YO-AOP-H0018-()	Omron	CJ1W-OD231/OD261	CS1W-OD231/OD261				
				C200H-OD218/OD219					
			Yokogawa	F3YD32-1A	F3YD64-1A				
				F3YD64-1F					
			NPN Output	32OM-AON-H0006-()	Omron	CJ1W-OD232 / OD262			
						CS1W-OD232 / OD262	C200H-OD21B		
	32YO-AON-H0019-()	Yokogawa		F3YD32-1B					
	Input	32KQ-C-H0027-()	Keyence	KV-C32XA/C64XA/C64XB					
	PNP Output			KV-C32TA/C64TA					
	NPN Outout			KV-C32TAP/C64TAP					

We offer customized cable assembling.

● Cable for 16 points I/O



() : Each additional cable order will be 10 cm

ex): 1 = 10 cm

2 = 20 cm

10 = 100 cm

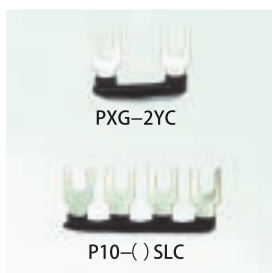
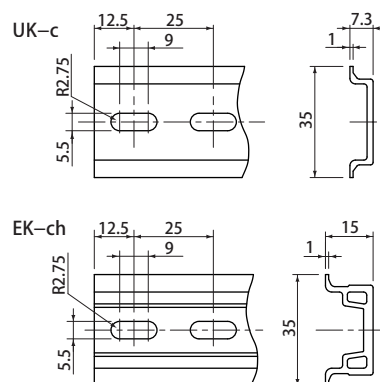
Interface Unit	I/O	Cable P / N	PLC Maker	PLC P/ N				
PX7FR16-V6 PS7FR16-V6	Input	16MI-AI-H0007-()	Mitsubishi	QX41	QX42	QX71	QX72	
				A1SX41	A1SX42	AX42		
	PNP Output	16MI-AOP-H0008-()		QY41P	QY42P			
				A1SY41	A1SY42	A1SY42P	AY42	
	NPN Output	16MI-AON-H0009-()		QY81P	A1SY81			
	Input	16TO-AI-H0015-()		Toshiba	DI235	DI335	DI335 H	
			DI634		DI635			
	PNP Output	16TO-AOP-H0016-()	DO235		DO335	DO634	DO635	
	Input	16YO-AI-H0020-()	Omron	CJ1W-ID231/ ID261	CS1W-ID231/ID261			
				C200H-ID216/ID218	C200H-ID217/ID219			
			Yokogawa	F3XD32-3F/4F/5F	F3XD32-3N/4N/5N			
				F3X XD64-3F/4F	F3XD64-3N/4N			
	PNP Output	16YO-AOP-H0021-	Omron	CJ1W-OD231/OD261	CS1W-OD231/OD261			
				C200H-OD218/OD219				
			Yokogawa	F3YD32-1A	F3YD64-1A			
				F3YD64-1F				
	NPN Output	16OM-AON-H0012-()	Omron	CJ1W-OD232 / OD262				
		16OM-AON-H0053-()		CS1W-OD232 / OD262	C200H-OD21B			
			16YO-AON-H0022-()	Yokogawa	F3YD32-1B			
	Input	16KQ-C-H0038-()	Keyence	KV-C32XA/C64XA/C64XB				
	PNP Output			KV-C32TA/C64TA				
	NPN Output			KV-C32TAP/C64TAP				

A large variety of conversion cables are available. Example: Breakout cable (The other side are crimp terminals or 4 connectors for 8 point common). We also offer connector branching units. *PSC Series is used for PLC connection.

Accessories

	P / N	Rail	Length (mm)	Packaging
Rail	UK-c	—	1000,1500,2000	10
	EK-ch	—	1000,1500,2000	10
End bracket	EK-b	UK-c,EK-ch	—	100
	UK-b	UK-c,EK-ch	—	100
Rail end cap	UK-ec	UK-c	—	50
	EK-ec	EK-ch	—	50

	P / N	Note
Short bar	PXG-2YC	For terminal block between A • B (For 32 points unit)
	P10-() SLC	() Terminal pole numbers



Safety Precautions



- Please use appropriate current and voltage according to the manual.
- Please do not apply abnormal shock or vibration. It may cause a malfunction or failure.
- Please do not touch terminal block and close the terminal cover while the power is on.
- Never use a relay for a load that exceeds the contact ratings of the relay, such as the switching capacity. Doing so may result in reducing relay performance for insulation failure, contact welding, and contact faults, and might even result in burning or other damage to the relay itself.
- Relay durability is greatly affected by the switching conditions. Always test the relay under actual application conditions to confirm applicability and use the relay only for the number of switching operations that will not affect performance.
- Our products were not designed or manufactured for use in devices or systems directly related to human life. Users who intend to use the product described in this manual for special purposes must contact Toho Technology Inc beforehand.
- If this product is to be involved a life and death situation or in a facility where failure may cause a serious accident, safety devices must be installed to minimize the likelihood of any accident.

★The products and specifications described in this manual or the content and presentation of the manual may be changed without notice to improve the product and/or the manual.



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