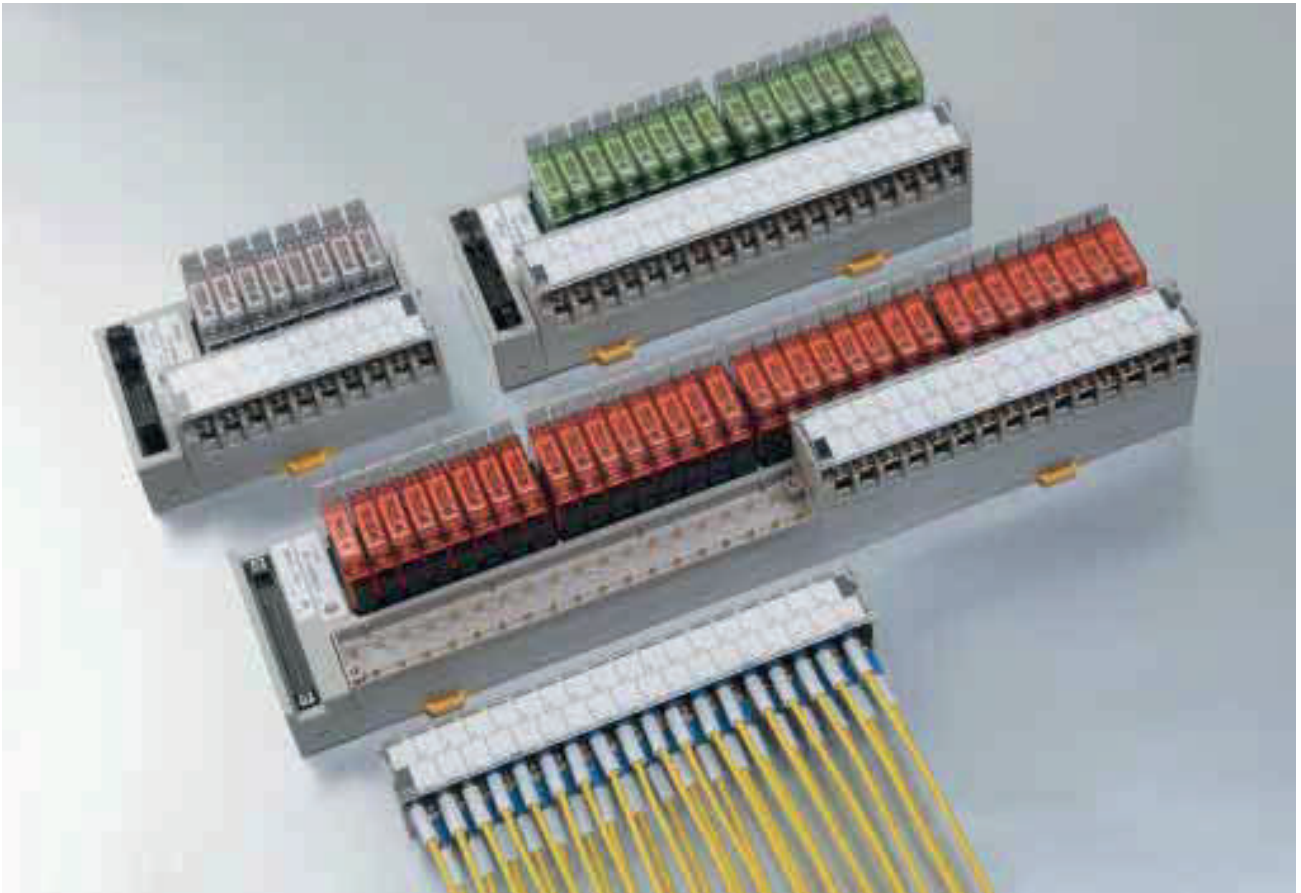


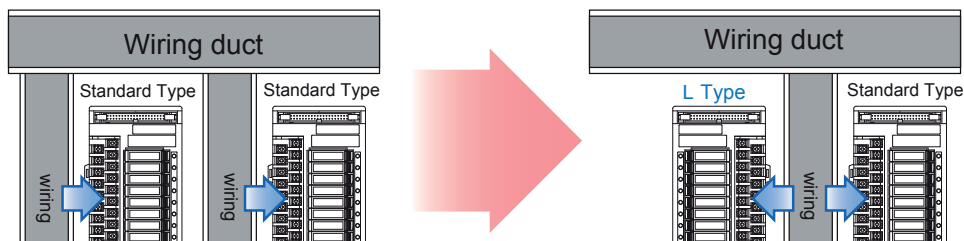


Relay Terminal Block Interface

PXGRseries

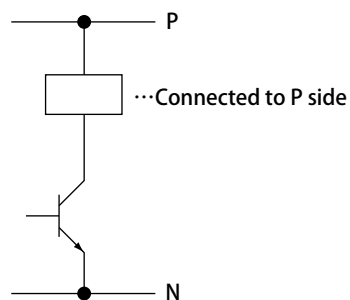
Features

- Wide range of voltage specifications available.
《 Input : 24 - 110VDC, 100 - 220VDC. Output : 24VDC 》
- Select from 16 and 32 I/O points
- "L Type" model saves wiring duct space.

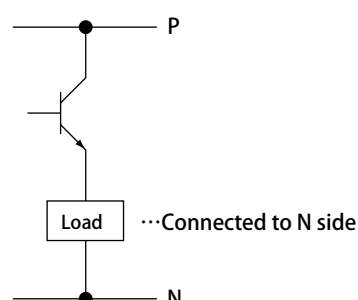


- Available to connect both NPN and PNP devices.

● PNP for input and output

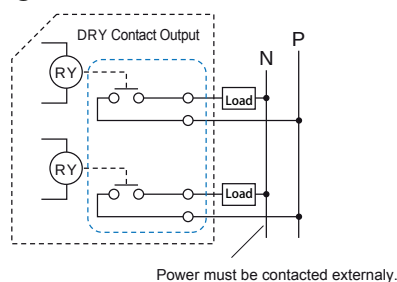


● NPN for output

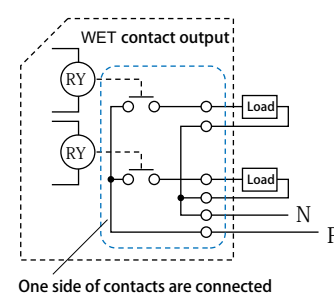


- Both "DRY" and "WET" circuit are available.

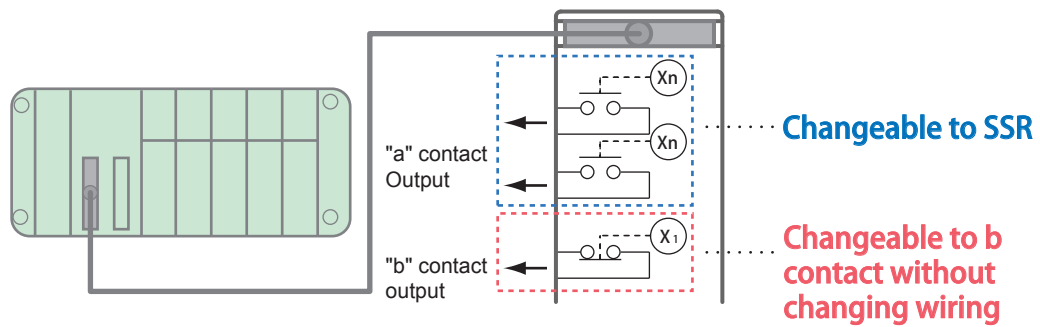
● DRY circuit



● WET circuit



- Select between B contact relay or SSR* *Solid State Relay



- Relays can be replace with only one hand by pulling lever, without removing cover.

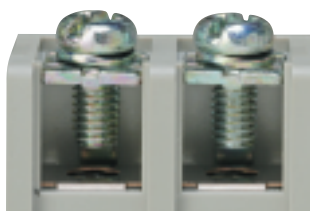


- Mounting on 35mm DIN rail is available.

- 3 types of terminal blocks are available.



Standard terminal



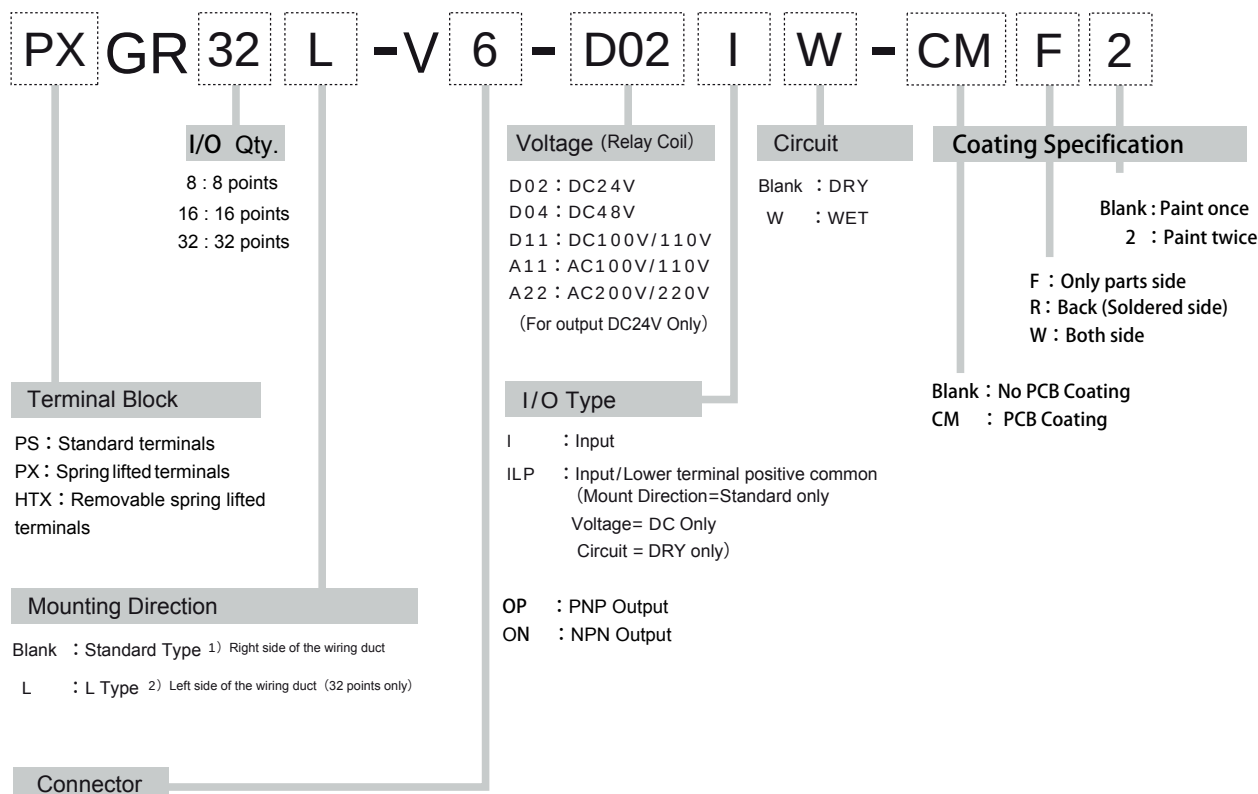
Spring lifted terminal



Removable spring lifted terminal

PXGRseries

Order Number



Connector P / N	Manufacturer	Connector P / N		
		For 8 points	For 16 points	For 32 points
2	Omron	XG4A-2031		XG4A-4031
3	JAE	PS-20PE-D4T1-LP1		PS-40PE-D4T1-LP1
3A	JAE	DA-15PT-NR	DB-25PT-NR	DC-37PT-NR
4	Hirose Connectors	HIF3BA-20PA-2, 54DSA		HIF3BA-40PA-2, 54DSA
5	Fujitsu	FCN-704Q020-AU/M		FCN-704Q040-AU/M
6	Fujitsu	—	FCN364P024-AU (24P)	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
13	JST	RX-H201TD-1190		RX-H401TD-1190
14	3M	3428-6002LCSC		3432-6002LCSC

*1) 24 pin connector

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

Specification

Rating	Input	Relay Coil Side (Terminal Block side)		DC24V, 48V, 100/110V AC100/110V, 200(220)V		
		Contact Side (connector side)		Resistance / Inductive Load: AC125V-1A／DC125V-1A		
	Output	Relay coil side (connector side)		DC24V		
		Contact side (terminal blockside)		Resistance load : AC250V-3A／DC30V-3A Inductive load : AC250V-2A／DC30V-2A		
		Common line (WET Circuit)	I/O points	8	16	32
			Current	MAX8A	MAX10A	MAX10A
			Common points	8 points／1common	16 points ／1common	16 points ／1common
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 >50G (*Exept relay)		
Recommended Wire				Maximum 2mm ²		
Recommended Crimp terminal				R2-3.5		
Tightening Torque				0.8～1.2N・m (When using crimp terminal)		
Relay failure rate "P standard"		Input	DC1V-100μA			
		Output	DC5V-10mA			
Operating Temperature				－20～＋55℃		
Storage Temperature				－25～＋70℃		
Relative Humidity				45～85%		
Installed Relay				G7T-1112S, 1122S (Omron)		
Weight				PXGR8: 600g	PXGR16: 770g	PXGR32: 1500g

*1) Rating is not same as relay specifications.

● Please contact us when using AC power for the connector. (The power supply line between the terminal and connector is DC only)

Relay / SSR combination list

Use	Voltage Specification		Relay (Omron)	SSR (Omron)
For Input	A11	AC100V/110V	G7T-1122S	G3TA-IAZR02S AC100-240V
	A22	AC200V/220V		G3TA-IDZR02S DC5-24V
	D02	DC24V		G3TA-OA202SZ DC24V
For Output	D02	AC100V~240V Load	"a" contact : G7T-1112S	G3TA-ODX02S DC24V
		DC5V~48V Load	"b"contact : G7T-1012S	G3TA-OD201S DC24V
		DC48V~200V Load		

1) SSR polarity, upper terminal is positive / lower terminal is negative.

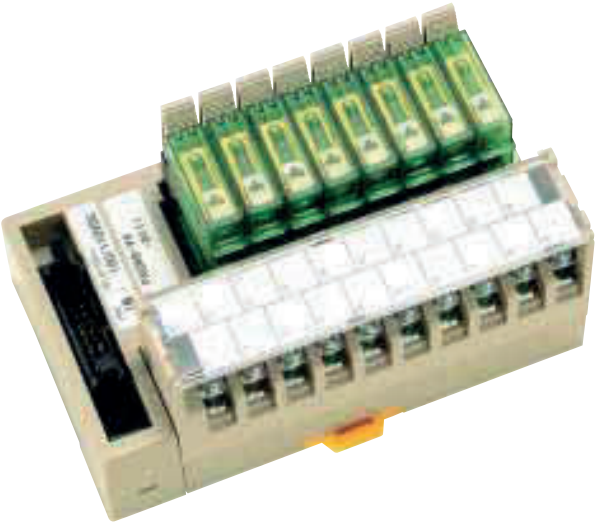
2) When using SSR for output, install the SSR alternately (every other slot) to the unit.(Maximum 16 slot)

Power Consumption

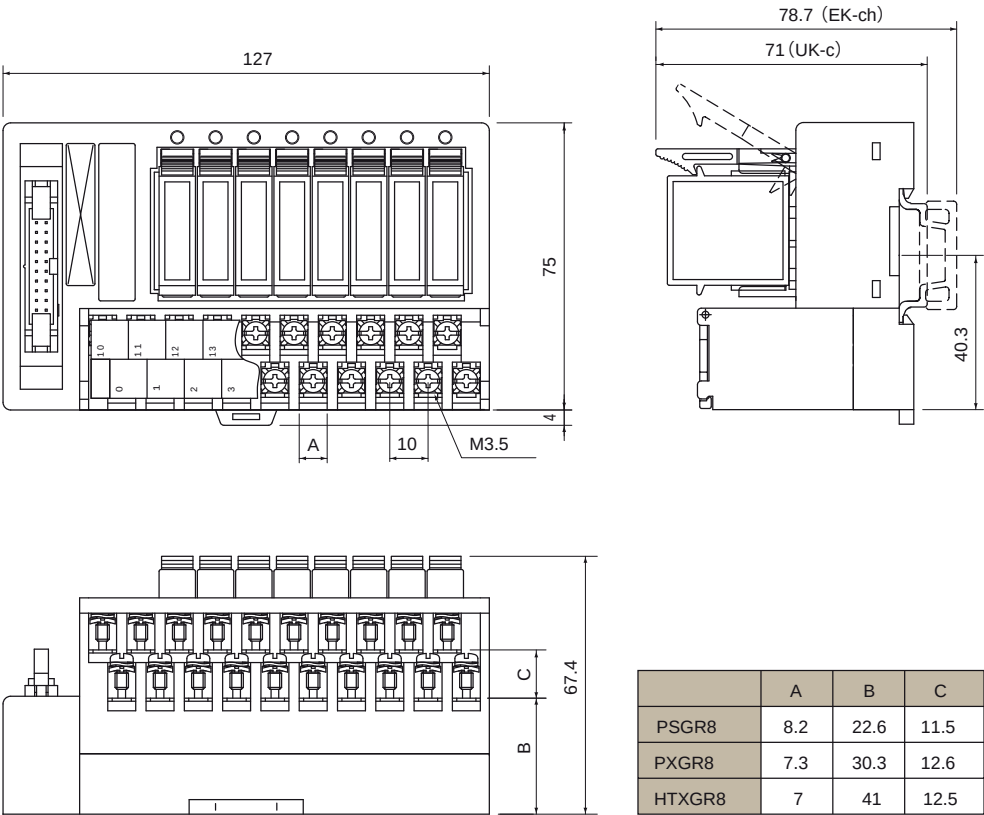
I/O points	For input											Output
	DC24V	DC48V	DC100V/110V	AC100V		AC110V		AC200V		AC220V		DC24V
				50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	
8	4.4W	4.8W	6.2W	8.2VA	7.2VA	9.7VA	8.5VA	8.1VA	7.2VA	9.7VA	8.5VA	5.0W
16	8.8W	9.5W	12.3W	16.3VA	14.4VA	19.4VA	17.7VA	16.3VA	14.4VA	19.3VA	17.0VA	9.9W
32	17.5W	19.0W	24.6W	32.6VA	28.8VA	38.7VA	34.1VA	32.6VA	28.8VA	38.7VA	34.1VA	19.8W

PXGR8

8 Points



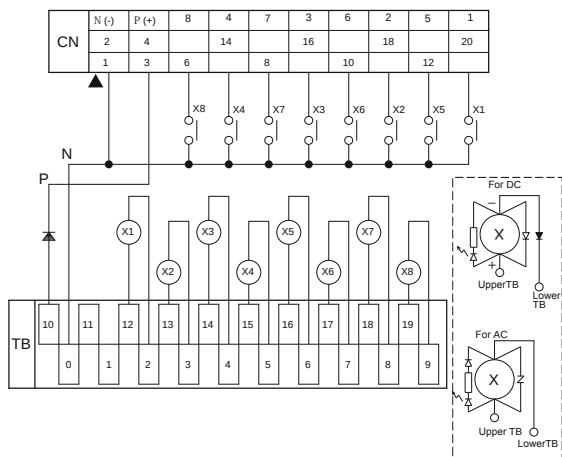
● Dimensions



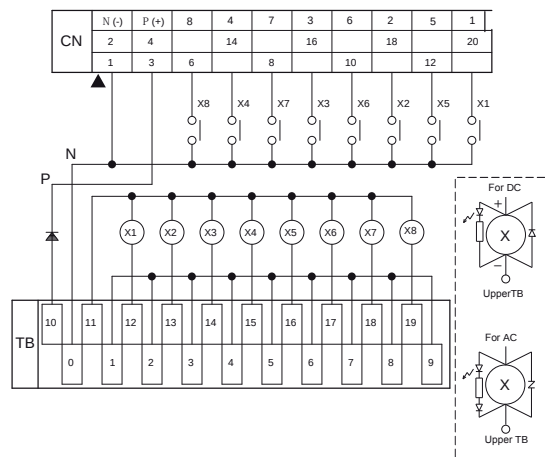
Circuit

*Please see page 13 for Fujitsu connector pin assignment.

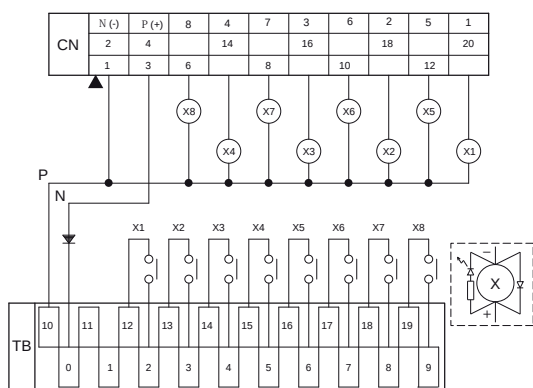
DRY Circuit Input



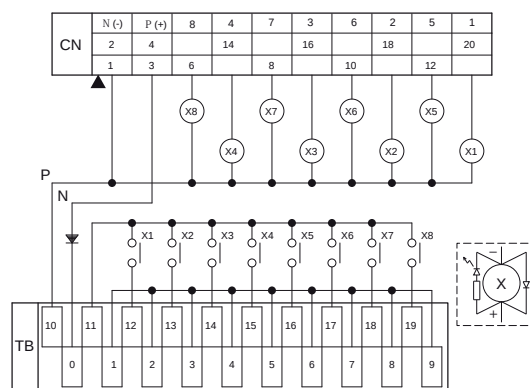
WET Circuit IW Input



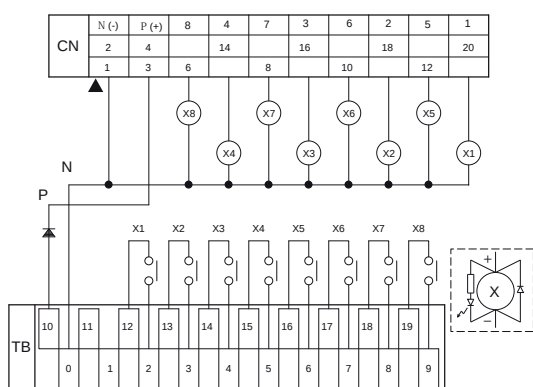
DRY Circuit OP PNP Output



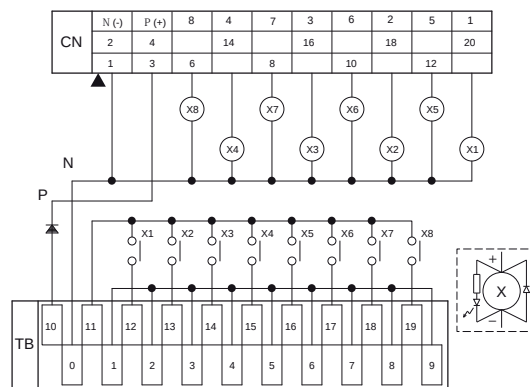
WET Circuit OPW PNP Output



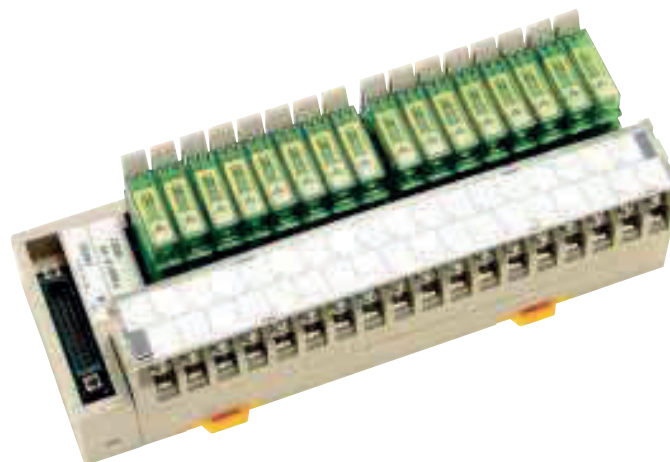
DRY Circuit ON NPN Output



WET Circuit ONW NPN Output



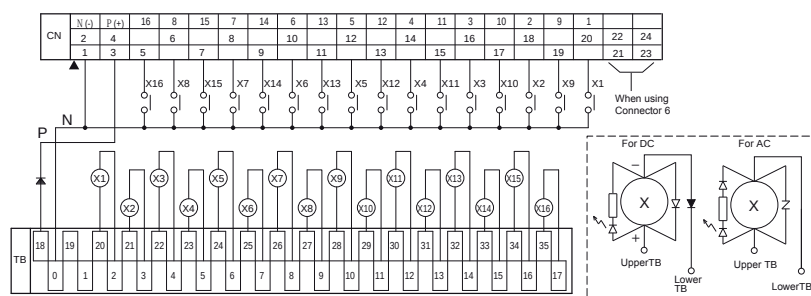
PXGR16 16 Points



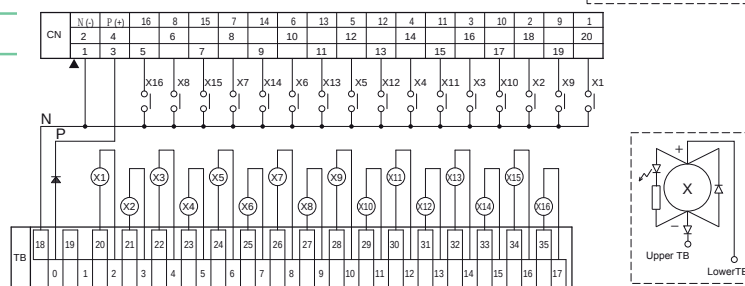
Circuit DRY Circuit

*Please see page 13 for Fujitsu connector pin assignment.

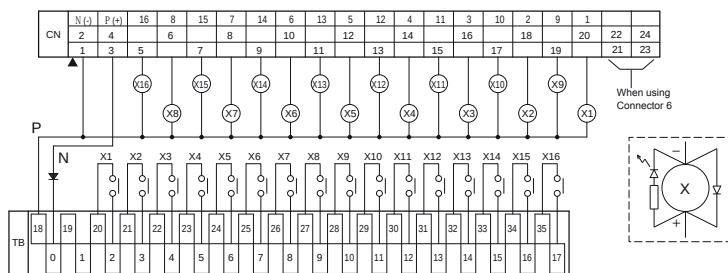
DRY Circuit | Input



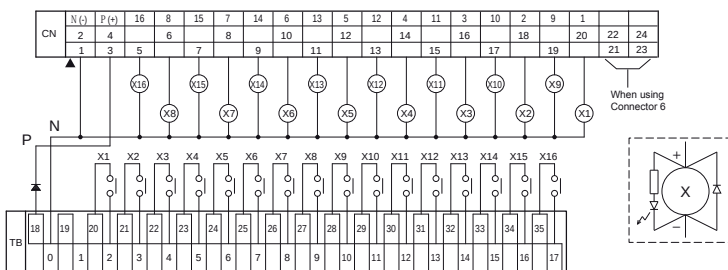
DRY Circuit ILP Input/Lower Terminal Positive



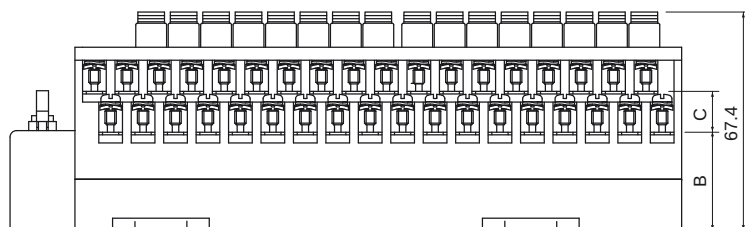
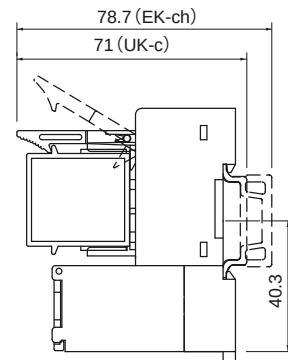
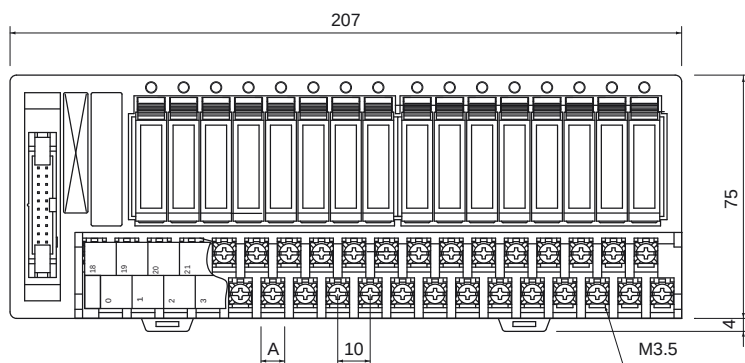
DRY Circuit OP PNP Output



DRY回路 ON NPN Output



Dimensions

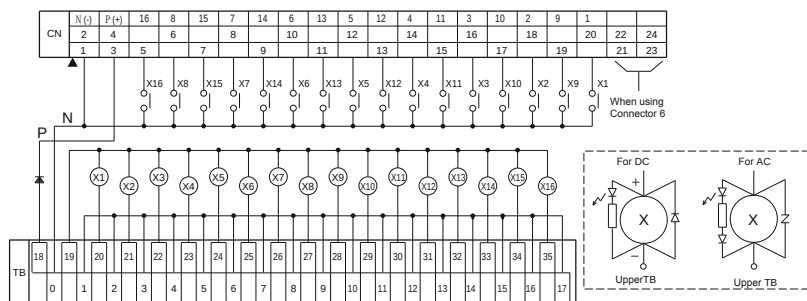


	A	B	C
PSGR16	8.2	22.6	11.5
PXGR16	7.3	30.3	12.6
HTXGR16	7	41	12.5

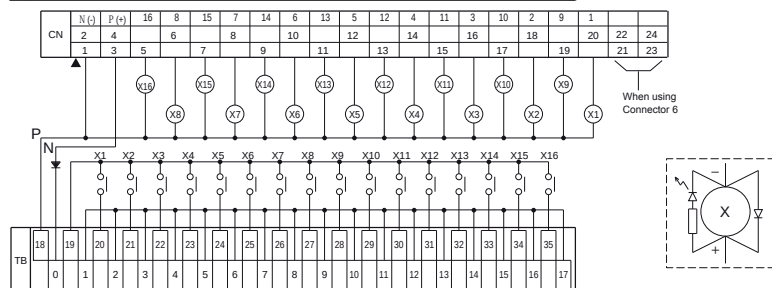
Circuit WET Circuit

*Please see page 13 for Fujitsu connector pin assignment.

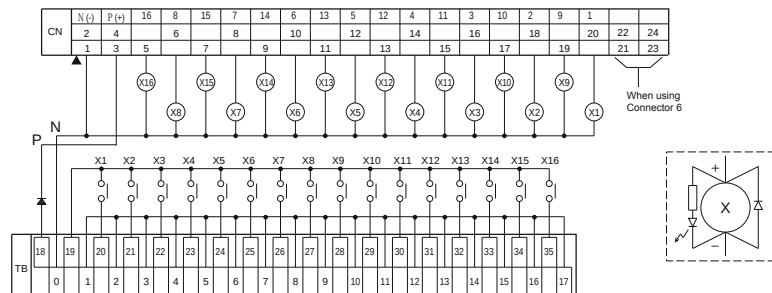
WET Circuit IW Input



WET Circuit OPW PNP Output

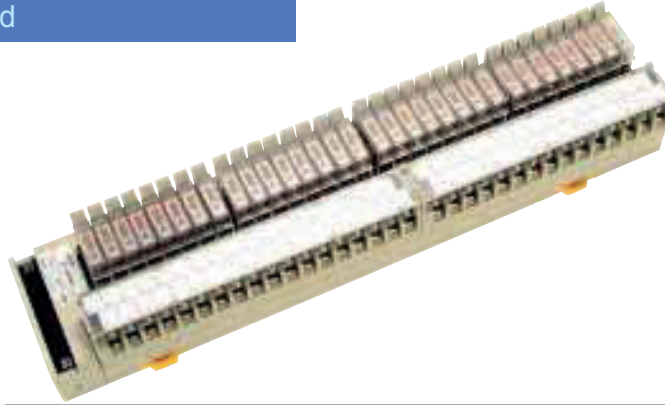


WET Circuit ONW NPN Output



PXGR32 32 Points

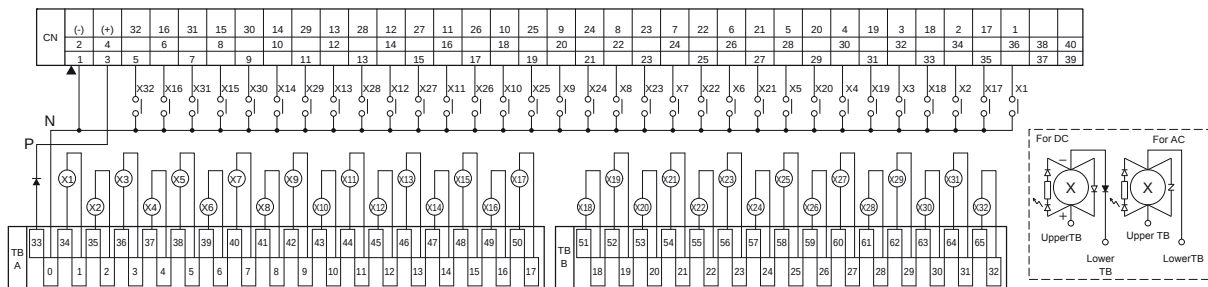
Standard



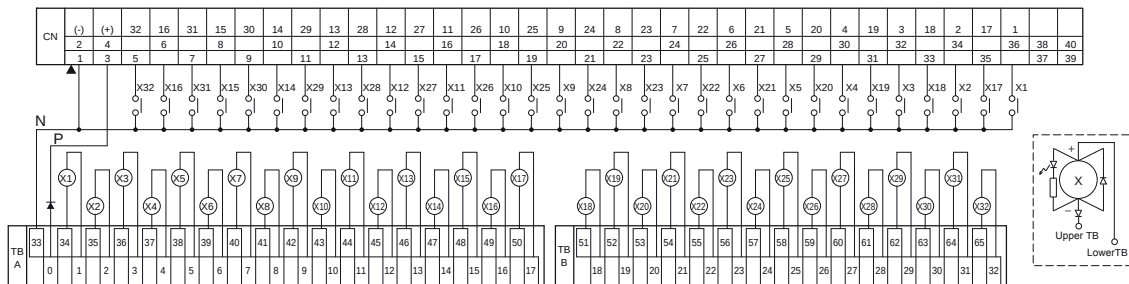
Circuit DRY Circuit

*Please see page 13 for Fujitsu connector pin assignment.

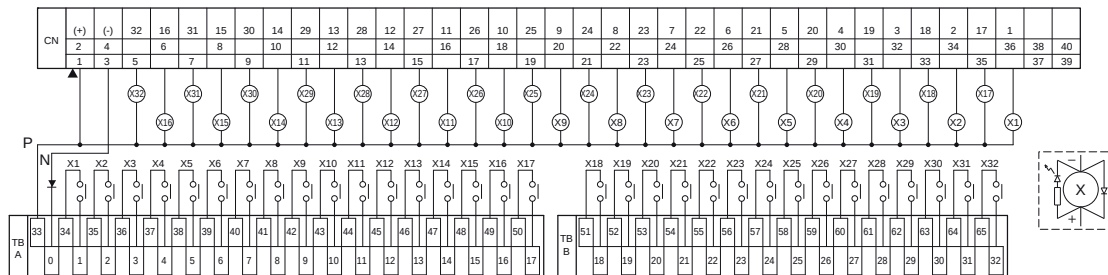
I Input



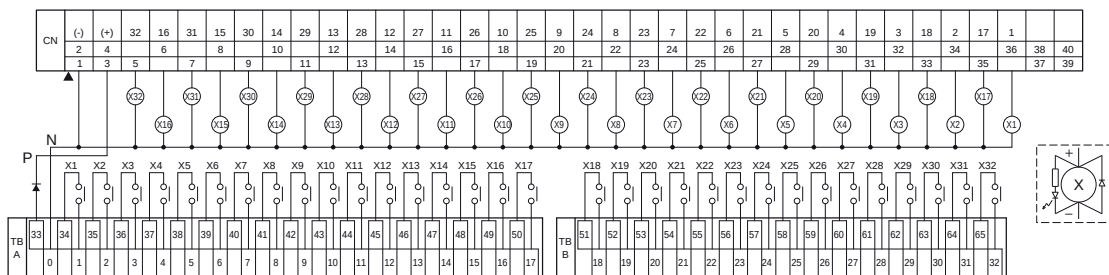
ILP Input/Lower Terminal Positive



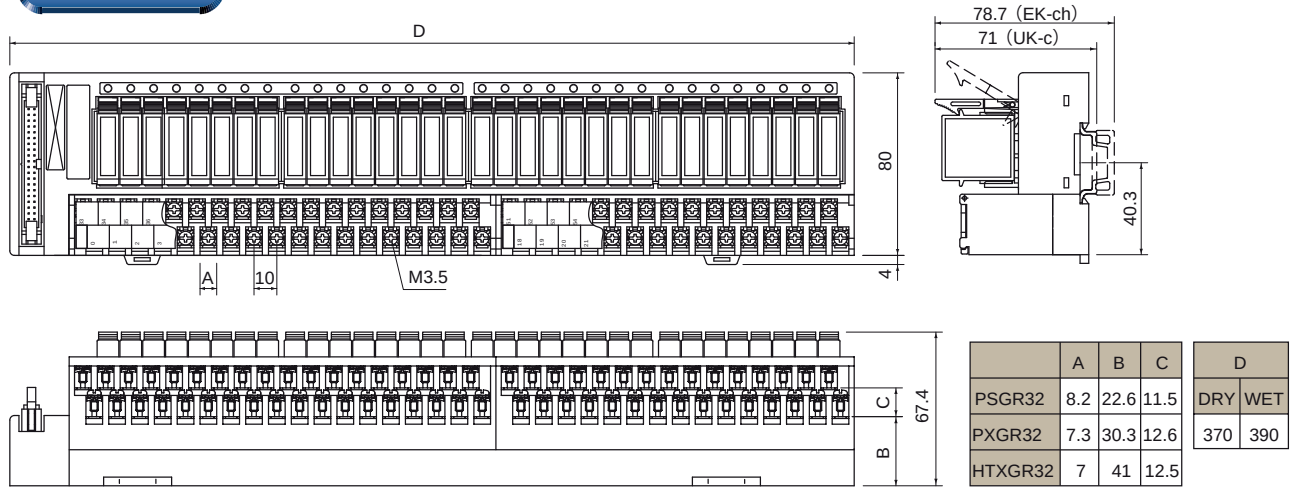
OP PNP Output



ON NPN Output



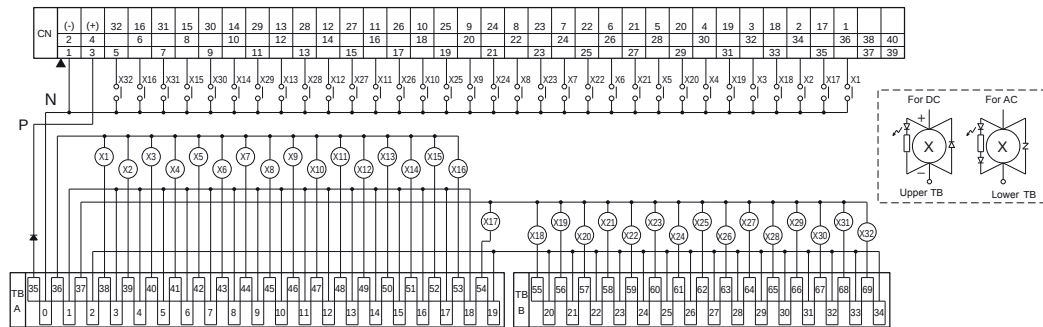
Dimensions



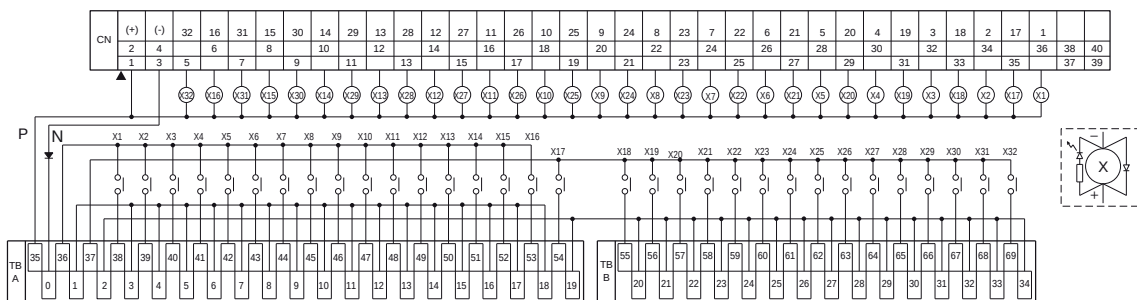
Circuit WET Circuit

*Please see page 13 for Fujitsu connector pin assignment.

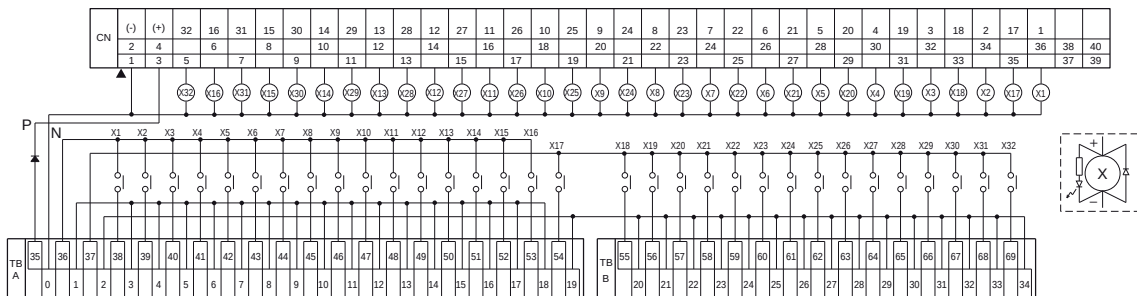
IW Input



OPW PNP Output

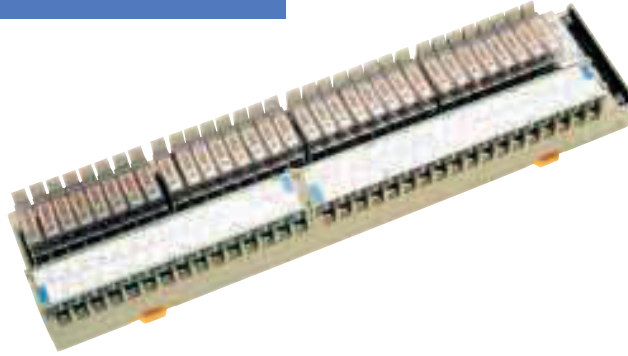


ONW NPN Output



PXGR32L 32 Points

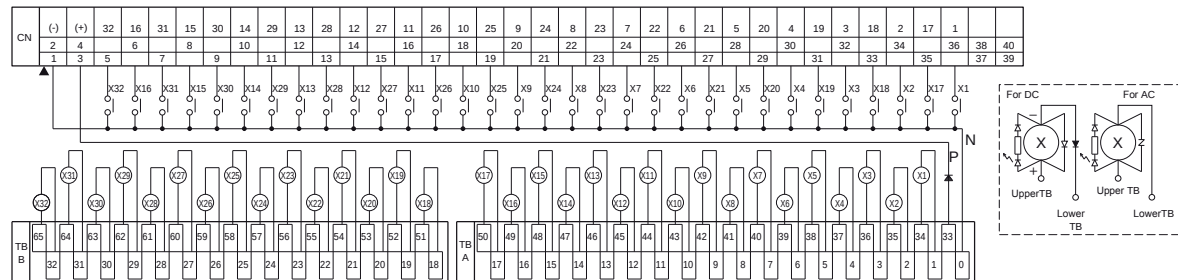
L Type



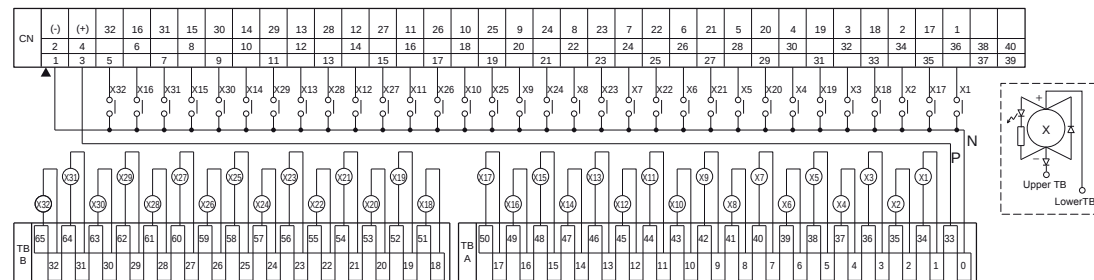
Circuit DRY Circuit

*Please see page 13 for Fujitsu connector pin assignment.

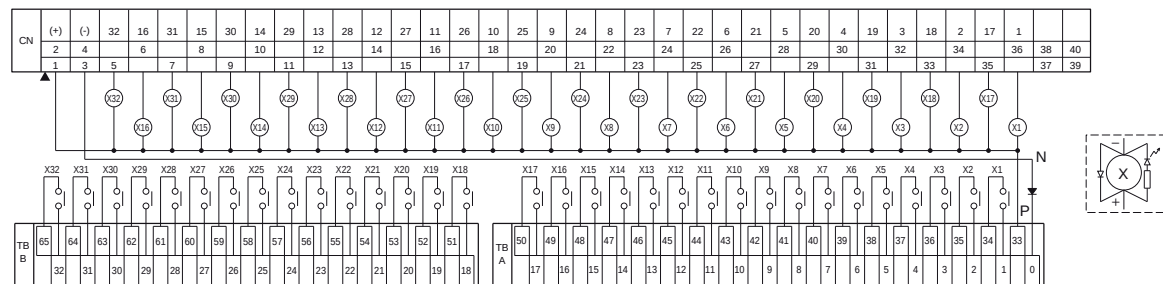
I Input



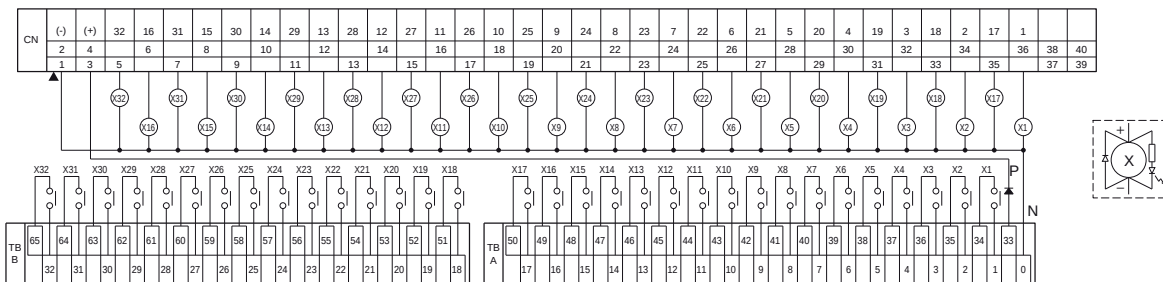
ILP Input / Lower Terminal Positive



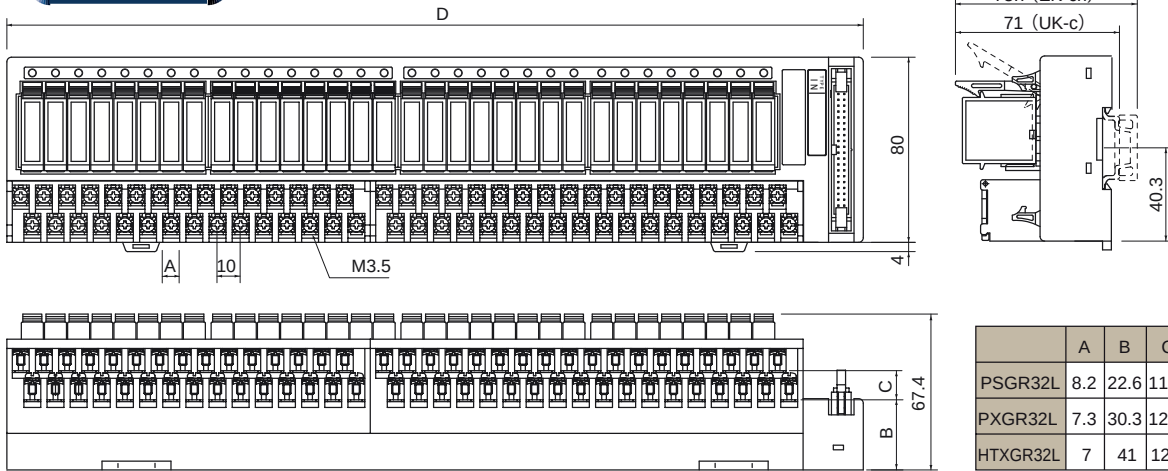
OP PNP Output



ON NPN Output



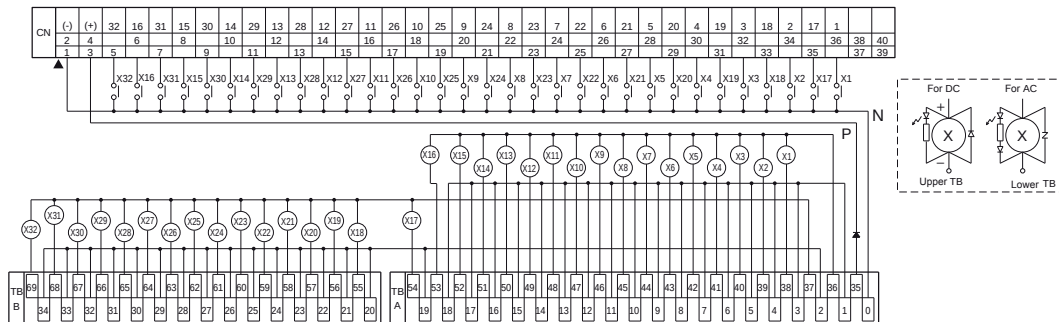
Dimensions



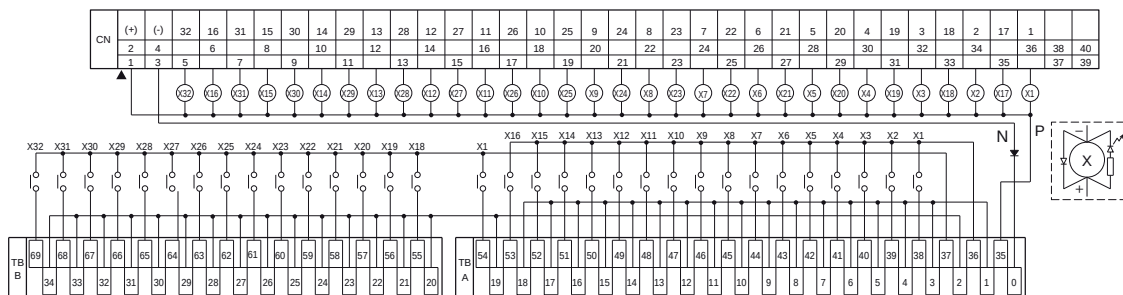
Circuit WET Circuit

*Please see page 13 for Fujitsu connector pin assignment.

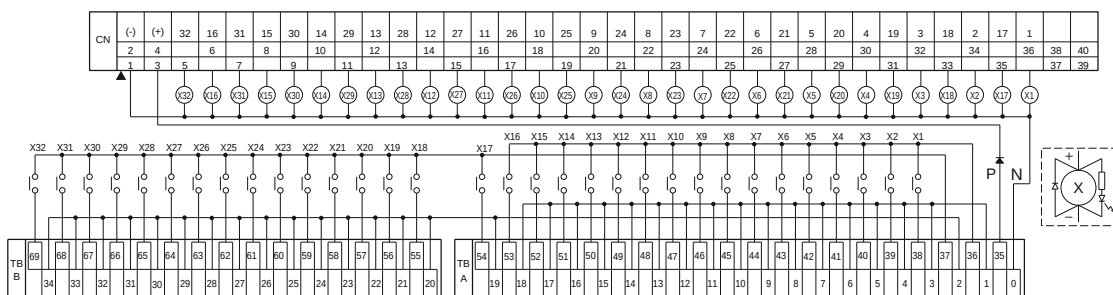
IW Input



OPW PNP Output



ONW NPN Output



Caution

DIN rail mounting

- When mounting on DIN rail, please use EK-ch (High-profile DIN rail). Standard DIN rail may not fit to the unit.

Replacing Relay

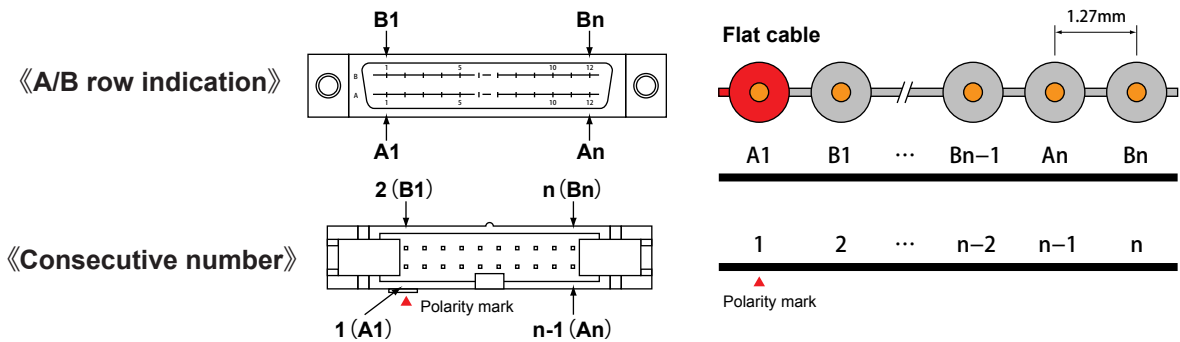
- Do not remove or insert relay while power is on. It may cause a failure and electric shock.

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

- Be careful for connector pin assignment indication.



Recommended Tightening Torque

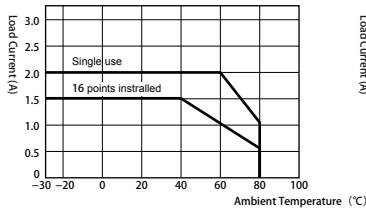
- 0.8~1.2 N/m *When wiring without crimp terminal, Recommended tightening torque is 0.5 N /m)

When using SSR

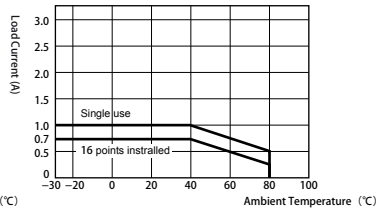
- When using SSR for output, Please install SSR alternately (every other slot) to the unit.
- Load current is depending on the temperature. Please refer to the graph below.

«Load current —Ambient Temperature»

G3TA-OA202SZ / G3TA-ODX02S



G3TA-OD201S



Fuse Rating

- Verify the fuse rating below to perform the appropriate protection coordination.

P4

P/N	Rated Current	Clearing Current (*1)
P403	0.3A	0.7A
P405	0.5A	1A
P413	1.3A	2A
P420	2A	3A

*1) Clearing current within 1 minute

MP

Current Capacity	Fusing Spec.
110%	135% Within 6min 200% Within 0.5 sec

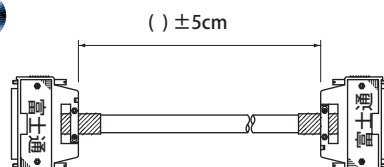
SMP

Current Capacity	Fusing Spec.
110%	135% Within 6min 200% Within 0.5 sec 300% Within 0.5 sec

Cable Assembling

● PLC Pre-wired Cable

Cable for 32 points I/O



() : Each additional cable order will be 10 cm

ex): 1 = 10 cm

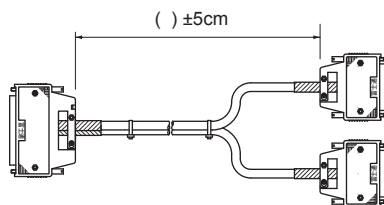
2 = 20 cm

10 = 100 cm

Interface Unit	I/O	Cable P / N	PLC maker	PLC P / N			
PXGR32-V6 PSGR32-V6 HTXGR32-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		
	Input	32YO-AI-H0017-()	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	
	C200H-OD218/OD219						
	Yokogawa	F3YD32-1A F3YD64-1A					
		F3YD64-1F					
	NPN Output	32OM-AON-H0006-() 32OM-AON-H0052-() 32YO-AON-H0019-()	Omron	CJ1W-OD232 / OD262			
				CS1W-OD232 / OD262		C200H-OD21B	
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

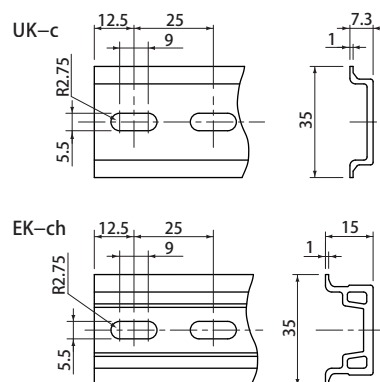
Interface Unit	I/O	Cable P / N	PLC Maker	PLC P/ N				
PXGR16-V6 PSGR16-V6 HTXGR16-V6	Input	16MI-AI-H0007-()	Mitsubishi	QX41	QX42	QX71	QX72	
				A1SX41	A1SX42	AX42		
	PNP Output	16MI-AOP-H0008-()		QY41P	QY42P			
				A1SY41	A1SY42	A1SY42P	AY42	
	NPN Output	16MI-AON-H0009-()		QY81P	A1SY81			
				DI235	DI335	DI335H		
	Input	16TO-AI-H0015-()	Toshiba	DI634	DI635			
				DO235	DO335	DO634	DO635	
	PNP Output	16TO-AOP-H0016-()		CJ1W-ID231/ ID261	CS1W-ID231/ID261			
			C200H-ID216/ID218	C200H-ID217/ID219				
	Input	16YO-AI-H0020-()	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 unit *PSC Series which is useful 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 part and close the terminal cover while the power is alive.
- 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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