

Smart I/O Stand Alone Type



Features

- Wiring reduction and real time control of distributed I/O
- Supporting Rnet, DeviceNet, Profibus-DP, MODBUS (RS-422/485), RAPIEnet (RJ-45)
- Various I/O (DC/TR/Relay) modules with the unit of 16/32 points

Digital I/O Specifications

Item	Input		Output			Mixed Module		
	DC (Sink / Source)		Transistor (Source: C type, Sink: C1 type)		Relay	DC (Sink / Source)	Transistor (Sink)	
No. of Point	16	32	16	32	16	16	16	
Rated Input (Load Voltage)	DC 24V		DC 24V		DC 24V/AC, 110V/220V	DC 24V		
Input Current (Load Current)	7mA		0.1A / 2A, 0.5A / 3A		2A/5A	0.1A / 2A, 0.5A / 3A		
Response Time	Off → On	3ms or less	3ms or less		3ms or less	3ms or less		
	On → Off	3ms or less	3ms or less		3ms or less	3ms or less		
Common	16 points / COM		16 points / COM		16 points / COM	16 points / COM		
Current Consumption	200 mA	300 mA	200 mA	300 mA	550 mA	200 mA	300 mA	
Network	Rnet	GRL-D22C	GRL-D24C	GRL-TR2C/C1	GRL-TR4C/C1	GRL-RY2C	GRL-DT4C/C1	
	Profibus-DP	GPL-D22C	GPL-D24C	GPL-TR2C/C1	GPL-TR4C/C1	GPL-RY2C	GPL-DT4C/C1	
	DeviceNet	GDL-D22C	GDL-D24C	GDL-TR2C/C1	GDL-TR4C/C1	GDL-RY2C	GDL-DT4C/C1	
	Modbus	GSL-D22C	GSL-D24C	GSL-TR2C/C1	GSL-TR4C/C1	GSL-RY2C	GSL-DT4C/C1	

Analog I/O Specifications

Item	GPL-AV8C / GEL-AV8C	GPL-AC8C / GEL-AC8C	Item	GPL-DV4C / GEL-DV4C	GPL-DC4C / GEL-DC4C
Input Channels	8 channels		Output Channels	4 channels	
Analog Input	DC1~5V, 0~5V, 0~10V	0~20 mA, 4~20 mA	Digital Input	0~4000, 0~8000, -8000~8000	
	-10~+10V	-20~20 mA	Analog Output	DC1~5V, 0~5V, 0~10V	
Digital Output	0~4000, 0~8000, -8000~8000	0~4000, -8000~8000		-10~+10V	0~20 mA, 4~20 mA
Input Impedance	1MΩ	250 Ω	Load Impedance	1KΩ or more (0~5V or 1~5V)	
Max. Resolution	±15V	±30 mA		2KΩ or more (0~10V or -10~10V)	
	1.25 mV	2.5 μA	Resolution	1.25 mV	
Accuracy	±0.3% (Full scale, Ta=0~55°C)	±0.3% (Full scale, Ta=23°C±5°C)	Accuracy	±0.3% (Full scale, Ta=0~55°C)	
	GRL-D22C	±0.4% (Full scale, Ta=0~55°C)		±0.4% (Full scale, Ta=0~55°C)	
Conversion Speed	10 ms or less/8 channel		Conversion Speed	10 ms or less/4 channel	
Response Period	10 ms or less/8 channels + transmission period (ms)		Response Period	10 ms or less / 8 channels + transmission period (ms)	
	Analog input/Output terminal with FG → Insulation			Analog input/output terminal with FG → insulation	
Insulation Method	Analog input/output terminal with communication terminal → Insulation		Insulation Method	Analog input/output terminal with communication terminal → Insulation	
	Analog input/output terminal with each channel → No insulation			Analog input/output terminal with each channel → No insulation	
External Power Supply	DC 24V (21.6 ~ 26.4)		External Power Supply	DC 24V (20.4 ~ 28.8)	
External Current Consumption	DC24V: 220mA		External Current Consumption	210 mA	240 mA
Weight (kg)	0.313	0.313	Weight (kg)	0.314	0.322

Communication Specifications

Item	Rnet (LS Dedicated Network)	Profibus-DP	DeviceNet	MODBUS
Protocol	LS dedicated protocol (Fnet for remote)	Profibus-DP (RS-485/EN50170)	DeviceNet (CAN)	MODBUS (RS-422/485)
Transmission Speed	1 mbps	9.6 Kbps ~ 12 Mbps	125/250/500 Kbps	2.4 Kbps ~ 38.4 Kbps
Transmission Distance	750 m/segment	100m~1.2km	500/250/125 m (Thin cable: 100 m)	500 m
Topology	Bus token	Bus	Trunk & drop	Bus
Transmission	Pass & broadcast	Token pass & master/slave (Poll)	CSMA/NBA (Poll, Cyclic, COS, Bit strobe)	Master/Slave (Poll)
No. of Stations	32/segment (Input: 32, Output: 32)	32/segment, 99/network	64	32