

Technical Parameters

Main performance indicators		GCU3201	GCU3202		
Power source	Power supply voltage	24VDC±20%			
	Static power consumption	< 5W			
	Power redundancy	Support			
	Overload and short circuit protection	Support (fuse)			
	Power reverse polarity protection	Support			
Memory	FLASH	32M+128Mbyte			
	DDR2	256M			
	Input memory	2048 bytes	4096 bytes		
	Output memory	2048 bytes	4096 bytes		
	Hot plug	Support			
Communication function	Ethernet	Communication protocol	UCP/Modbus TCP		
		Interface type	2-way RJ45 interface		
		Transmission rate(Baud Rate)	10M/100M, self-adaptive		
	Serial port	Rs485 interface	Network redundancy	Ring network	AB dual-network redundancy
				2 ways, 6 terminals, support self-defined protocol, Modbus master-slave protocol, support 64 slave nodes to access	
	Power-off retention function	Support data stored in MRAM, no need for a separate button battery			

Basic technical indicators	
Module power supply	24VDC(-15%~+20%)
Working temperature	-30~75°C
Storage temperature	-40~85°C
Humidity	5%~95%RH, no condensation
Working altitude	Below 4000m
Module protection class	IP20
Environmental pollution protection class	Class G3
Hot plug	Support all series
Dimension/Module (H×W×D)	120mm×22.2mm×87.7mm (excluding terminals)

Core Components

Model	Module type	Description
Controller		
GCU3201-S01	Controller	2-way Ethernet port, 2-way serial port, support ring network function and up to 20 modules.
GCU3202-S01	Controller	2 Ethernet ports, 2-way serial ports, AB network redundancy, to support Modbus master-slave station and PROFINET slave station communication
I/O module		
AI3208-S01	Analog signal input module	8 channels, to support (0~10) mA, (4~20) mA, power distribution/non-power distribution and unified isolation
AO3208-S01	Analog signal output module	8 channels, to support (0~10) mA, (4~20) mA, (0~20) mA, and unified isolation
AI3206RTD-S01	Thermal resistance detection module	6 channels, to support resistance (1~400)Ω: (1~500)Ω, (2~1000)Ω; (2~1250)Ω, channel-to-channel isolation
COM3204RTU-S01	Serial communication module	4-way RS485 interface, to support Modbus RTU master-slave communication and self-defined protocols
DI3216-S01	Digital signal input module	16 channels, to support active or passive contact signal input and unified isolation
DO3216-S01	Digital signal output module	16 channels, to support transistor output and unified isolation
Communication module		
IM3202RJ-S01	Extension connection module	Used for remote rack extension, to support UCP protocol and 2-way RJ45 interface
Rack		
CN3220-S01	Rack (20 slots)	Support installation of up to 20 modules and can be used as a local rack or a remote rack.
CN3214-S01	Rack (14 slots)	Support installation of up to 14 modules and can be used as a local rack or a remote rack.
CN3210-S01	Rack (10 slots)	Support installation of up to 10 modules and can be used as a local rack or a remote rack.
CN3206-S01	Rack (6 slots)	Support installation of up to 6 modules and can be used as a local rack or a remote rack



G3Smart Programmable Logic Control System



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G3Smart

Programmable Logic Control System

Overview

G3Smart is a new generation of small-to-medium-size highly reliable programmable logic control system designed to meet high-density and distributed applications. It renders robust performances as a small scale and stand-alone control system even in a narrow space. It is compatible with SUPCON GCS series PLC, and can be seamlessly connected to GCS G3 and GCS G5. It can also be used as a remote IO module of the G5Pro controller for remote extension, contributing to a high cost-performance ratio. It is widely applied in the process industries, including petrochemical, fine chemical, oil and gas exploration, municipal engineering, metallurgy, pharmaceutical, etc.

Features

Designed in compliance with the international industrial standards and specifications, the G3Smart system ensures high availability, reliability and openness, and boasts the following distinctive features:

⊕ **Flexible and diverse control functions**

Multi-task operating system, to support Multi-task mode such as Initiating Task, Periodic Task, Cyclic Task and Event Task

⊕ **User-friendly configuration environment**

Support FBD, LD, ST, SFC programming languages compliant with IEC 61131-3 standard and simple communication configuration, making configuration more efficient

⊕ **Powerful network interconnectivity**

High-reliability Ethernet, to support high-reliability real-time communication

⊕ **Flexible network topology**

Support star, daisy chain, ring network and other network topologies

⊕ **Open data interface**

Support Modbus RTU/Modbus TCP, PROFINET, DNP3, OPC and other communication protocols

⊕ **High environmental adaptability**

Industrial-grade components, support the working range of full-temperature zone, corrosive gases protection

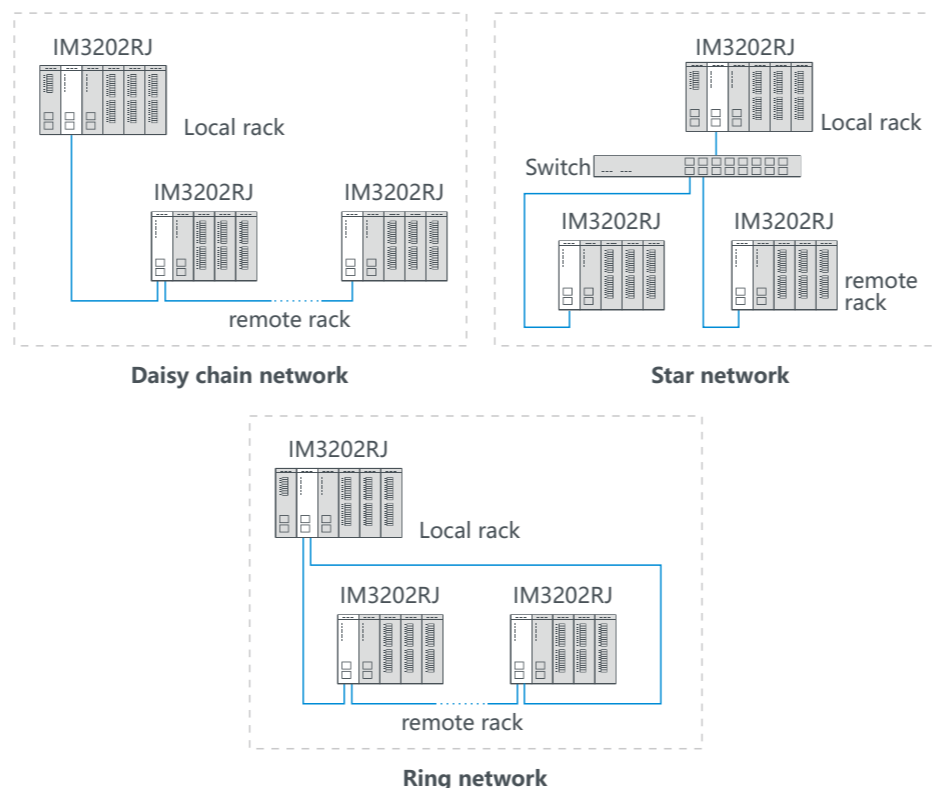
⊕ **Compact design**

The module size is unified as 120mm*22.5mm*102.5mm, flexible and convenient to install, adaptive to the compact design as required by the field

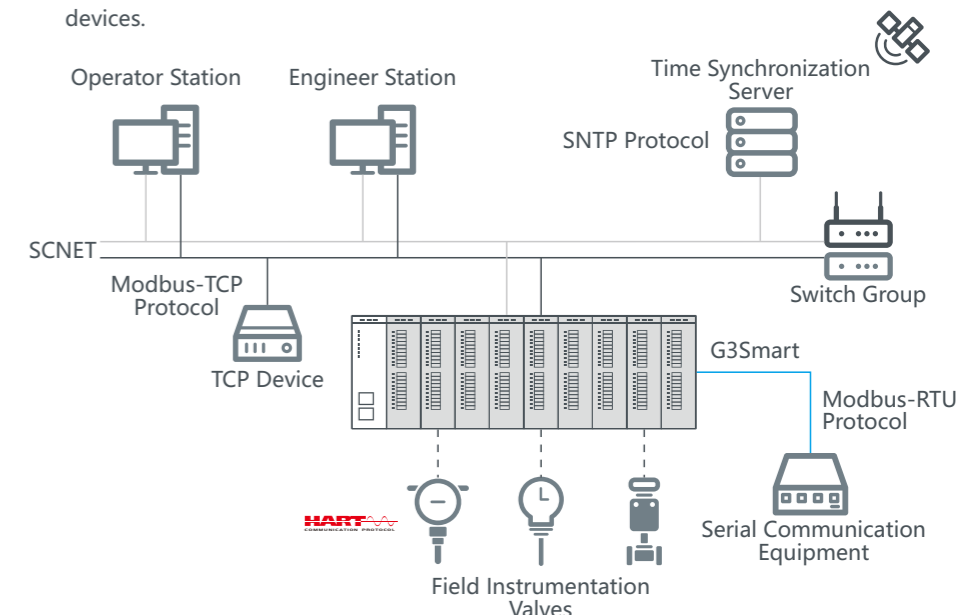
System Network

The G3Smart system has extremely flexible network connectivity and extensibility, allowing it to cater to diversified networks.

⊕ **Support three remote IO network topologies:** daisy chain, star, and ring types, providing more flexible for engineering application design.

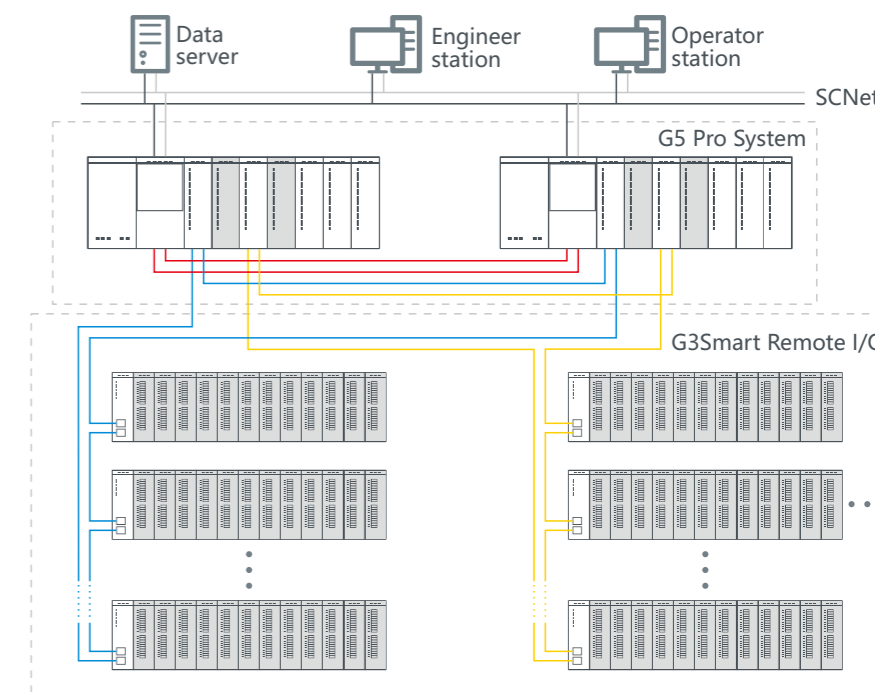


⊕ **Support multiple communication protocols:** UCP, Profinet, Profibus DP, Modbus-RTU, Modbus-TCP, OPC protocol-supported external communication interfaces, so as to realize communication with other control systems or smart devices.



⊕ **Cost-effective Integration**

The IOs of the G3Smart system can be used as remote IO modules of the large-scale G5Pro series controller for miniaturized installation of a remote station and cost-effective design of an entire system.



Note: The modules in grey in the local rack can be TCP, PN modules or dummy modules.