

FDC Box and Sensor

FDC Broker Server

- MES
- SCADA
- APC
- FDC
- SPC



SECS/GEM
TIBICO
Cobra
MES

Broker Server
Protocol & unit conversion



Cisco Hub

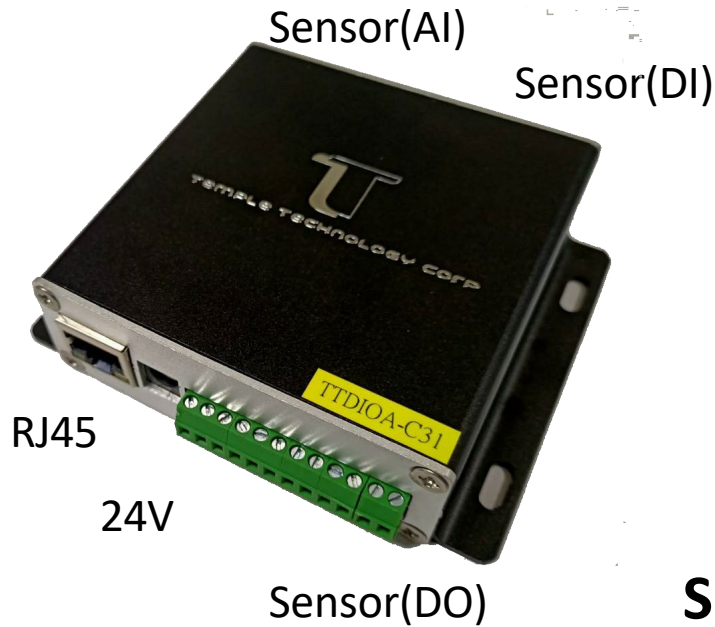
5G Route/Hub

SECS/GEM, MQTT, MODBUS

RJ45/Ethernet



FDC Box-C31-AIO



Specification

- Box vcc: DC 24V
- Sensor vcc:DC24V [*1]
- **Signal: 0-5V,0-10V,4-20mA,0-20mA**
- Euroblock socket: 3PIN &4PIN

*註1傳感器電壓超過24V時，可自行供電，再經由轉版傳回訊8號。

FDC Box-X6-8IIC



Specification

- Box vcc: DC 24V
- Sensor vcc:DC24V [*1]
- **Signal: I2C, UART dongle**

*註1傳感器電壓超過24V時，可自行供電，再經由轉版傳回訊9號。

FDC Box-D6-8AI



RJ45

24V DC55-25

AI

Specification

- Box power: DC 24V
- Sensor Socket: DC24,GND,AI+,AI-
- **Signal: 0-5V,0-10V,4-20mA,0-20mA**

Supported Sensors





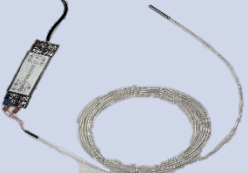
General Data Collection Category

Category	Location	Function	Rank
Temperature/Humidity sensor	General	0-100,0-300 degree type.	1
Power meter	Pump Motor	100A/20A type, monitor device power consuming status Non-contact type!	2
Vibration sensor	Pump Motor	Defect abnormal effectiveness in pump, motor & piping	3
Temperature sensor	Power box	Non-contact type! 0-100, 0-300, 0-600 type. Monitor power box status to prevent accident	4
Liquid flow meter	Pine	Non-contact type!	
Gas flow meter	Pine	Non-contact type! (Pipe must>2inch)	5
Particle counter	Clean Room	AeroTrak 9310/9510 particle counter to detect particle online/real-time.	



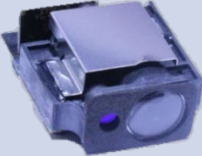


Popular Sensor Application

Sensor Name	Factory	Function	Sensor Brand
O2 Sensor	Micron	Purge N2 into POD for quality. Monitor POD O2 sensor to ensure N2 purging successfully. 0~25% O2.	TT
O2 Sensor	tsmc	Environment type O2 Sensor, Detect O2 density around OHB for safety. 0~25% O2	TT
Gas Flow Management	tsmc/SMIC	Monitor EQP suit. (1)+Pressure(0~1000KPa) (2) Flow 0~200 SLM (3) –Pressure (0~-100kPa)	SMC
Photoresist Control	UMC	Monitor Photoresist usage & pipe status. 8EA of flow sensor 0~0.5 SLM	Sensirion
Temperature management	UMC	1 EQP monitor 5 PCB board for quality protection. 0~100 degree	Sensirion
FAC/EQP quality monitor	VIS	Monitor FFT of motor in sub-fab. Alarm if new signal (vibration)	TT

Popular Sensor List-1

CaT.	Picture	Sensor Bonder/Type	Application	Fab
Press		SMC/ ZSE40A (-0.1MPa) SMC/ ISE40A (+1MPa)	All 300mm EQ equipments pressure sensor for GAS valve	All
Gas Flow		SMC /PFMB7201S- 02-C-M	General purge to measure gas flow 0~200 SLM.	tsmc SMIC
Liq. Flow		Sensirion/Liquid Flow Meter SLI Sensirion/Liquid Flow Meter SLQ- QT105	<ul style="list-style-type: none"> • Photoresist control • Wet Clean acid control 	UMC
Temp & Hum		TT/Sensirion SHT35	General purge 0~100 degree	tsmc/UMC
Temp		TT/PT100, K-sensor	Chamber temp monitor	UMC

Popular Sensor List-2

CaT.	Picture	Sensor Bonder/Type	Application	Fab
O2		TT/TT-O2 Sensor	PE control (DNS WClean, AMAT BaSeed, AMAT CuSeed)	Micron tsmc
Vibration		TT/TT-Vibration Sensor	Ebara tool	VIS
IR Distence		TT	Sorter	VIS
IR Temp		TT	Etching Chamber	UMC
Wind differential pressure		Sensirion	N/A	UMC