4 1/2 DIGITAL PROCESS CONTROLLER

CS2-PR

■ ORDER INFORMATION

CS2 - PR - Input Signal **-** Relay Output **-** Analog Output **-** Communication **-** Aux. Power

Excitation Supply DC24V in build for 2-wire transmitters

CODE	INPUT MODE
A1	0~20mA
A2	4~20mA
AV	0~10V/0~20mA (all in one)
AO	Specify A Input
VO	Specify V Input

(Option 1)

CODE	RELAY O/P
N	None
R2	2 Relays
R4	4 Relays

(Option 2)

CODE	Analog O/P
N	None
V	0(1)~5V 0~10V
I	0~10mA 4(0)~20mA

(Option 3)

CODE	Communication
N	None
8	RS485

CODE	Aux. POWER
A	AC 115/230V

(Option 4)

CODE	Aux. POWER
ADH	AC/DC 85~264V
ADL	AC/DC 20~90V

Model No.	CS2-PR	CS2-SG	CS2-PM	CS2-RS
Features	DC Process Controller	Strain Gauge Controller	Potentiometer Controller	Resistance Controller
Application	Display, Control (4 Relays Output) & Analogue Output & , RS485 Port			
Measurement	DC Signal, 0~10Vdc ; 4(0)~20mAdc	mV/V (Load Cell or Strain Gauge)	Potentiometer	Resistance
Input Range	Voltage: 0~50mV, ~, 0~20V Current: 0~1mA, ~, 0~20mA with Input High & Low function	1.0mV/V ~ 40.0mV/V with input High & Low function	0~50.0/~2.0Ω; 0~2.0K/~100.0KΩ (3-wire) with Input High & Low functi on	Potentiometer: 0.00~20.000KΩ (2-wired) with Input High & Low function
Display Range	Analogue Input High/Low setting, Hi/Low scaling: -19999 ~ +29999			
Display Accuracy	≤±0.04% of F.S.			
User Function	Security Pass code, Function Lock, Low Cut, Average, Digit Filter..., ECI: PV Hold, Max./Min. Hold, Tare, DI			
Control Output	4 Relays (10A/115V x 2, 3A/115V x 2) for Hi/Lo/HH/LL with Start Delay, Hysteresis, Relay ON/OFF delay, energized Hold, DO			
Analogue Output	0~10V or 0~20mA Isolation ; With input & powered Accuracy: 0.1% of F.S., 16bits DAC (Analog output relative scaling high & Low)			
Excitation Supply	DC 24V/ 30mA	DC 5V/10V	50~10KΩ, 0.2V ; 10K~50KΩ, 2.0V	0.04 ~ 2.0mA
Communication	RS485 Modbus RTU mode, Baud rate: up to 38400 programmable			
Max. Input over Capability	(Voltage): 1.2 x rated continuous, 1.5 x rated for 10 seconds (Current): 10 x rated for 10 seconds			
Response Time	0.1 (sec.)			
Adjustment	Digital adjust for Zero & Span of PV & Analogue Output	Digital adjust for Zero & Span of PV & Analogue Output Field Calibration with transducers		Digital adjust for Zero & Span of PV & Analogue Output
Power Supply	AC 115V, 230V, 50/60Hz ; Optional: AC/DC85~264V or 20~90V (RoHS version)			
Operating Temp.	0 ~ 60°C			
Operating Humi.	20 ~ 95% RH, Non-condensing			
Temp. Coefficient	100ppm / °C (0~50°C)			
Dielectric Strength	AC 2KV, (1min. Between Power / Input / Output); AC3KV, (1min. Between Terminal /Case)			
Insul ation Resi stance	DC 500V 100MW (Between Power / Input / Output)			
Installation / Dimension:	By Panel Mounting, Panel Cutout size: W92xH44, Meter Dimension: W 96 x H 48 x D 120mm			

VOLT & CURRENT Meter (Dual Input & Display)

VAM

Compact size: W96xH48mm

- **Measuring dual channels (Isolated) Voltage 0~100mV/~600V & Current 0~199.99μA/ ~10A for DC / AC / TRMS mixable.**
- **Optional Mathematic function available for Addition / Subtraction / Multiplication / Division / high or low selector in 2 channels input.**
- **Optional Analogue multi-cross selection output & RS 485 communication port**
- **CE approved & RoHS.**

Calibration: Digital calibration by front key for each channel
A/D converter: 16 bits resolution
Accuracy: DC: ≤±C0.04% of FS ± 1C
AC: ≤±C0.1% of FS ± 1C
Sampling Rate: 15 cycles/sec.
Response Time: ≤100msec.(when the AvG="1") in standard
Input Range: Input High and Low programmable for each channel
Ai.Hi: settable range 0.00~100.00% of input range
Ai.Lo: settable range 0.00~100.00% of input range
Dual display screens can be programming individual
Display Range: PV: -19999~29999; Mathematic: -19999~+99999
Scaling function: Individual programmable for dual input
Lo.SC: Low scale settable range -19999~+29999
Hi.SC: High scale settable range -19999~+29999
Decimal point : Programmable from 0/0.0/0.00/0.000/0.0000

■ ORDER INFORMATION

VAM - DC/AC/TRMS Input 1 Signal / DC/AC/TRMS Input 2 Signal **-** Relay Output **-** Analog Output **-** RS485 Port **-** Aux. Powered Special Optional

CODE		Input Mode
D		DC measuring
A		AC measuring
T		TRMS measuring
	V1	0~199.99mV
	V2	0~1.9999V
	V3	0~19.999V
	V4	0~199.99V
	V5	0~300.0V
	V6	0~600V
	VA	0~50mV
	VB	0~60mV
	VC	0~100mV
	VO	Specify (V Input)

CODE		Input Mode
D		DC measuring
A		AC measuring
T		TRMS measuring
	A1	0~199.99μA
	A2	0~1.9999mA
	A3	0~19.999mA
	A4	0~199.99mA
	A5	0~1.9999A
	A6	0~1.0000A
	A7	0~5.000A
	A8	0~10.000A
	AO	Specify (A Input)

※ Input 2: Max. Current input will be under 199.99mA

(Option 1)

CODE	RELAY O/P
N	None
R2	2 Relays
R4	4 Relays

(Option 2)

CODE	Analog O/P
N	None
V	0(1)~5V 0~10V
I	0~10mA 4(0)~20mA

(Option 3)

CODE	Communication
N	None
8	RS485

CODE	Aux. POWER
A	AC 115/230V

(Option 4)

CODE	Aux. POWER
ADH	AC/DC 85~264V
ADL	AC/DC 20~90V

CODE	Optional
MMF	Mathematic function

Process Indicator & Controller

CS2-VA 4 1/2 DIGITAL VOLT/AMP METER

CS2-RL 5 DIGITAL TACHO -METER CONTROLLER

CS2-TM 10 DIGITAL TOTALIZER

CS2 - VA / RL **-** (Input Mode) / (Input Mode) **-** Relay Output **-** Analog Output **-** Communication **-** Aux. Power

CODE	Input Mode
D	DC measuring
A	AC measuring
T	TRMS measuring
V1	0~199.99mV
V2	0~1.9999V
V3	0~19.999V
V4	0~199.99V
V5	0~300.0V
V6	0~600V
VO	Specify (V Input)

CODE	Input Mode
D	DC measuring
A	AC measuring
T	TRMS measuring
A1	0~199.99μA
A2	0~1.9999mA
A3	0~19.999mA
A4	0~199.99mA
A5	0~1.9999A
A6	0~1.0000A
A7	0~5.000A
A8	0~10.000A
AO	Specify (A Input)

CODE	RELAY O/P
N	None
R2	2 Relays
R4	4 Relays

CODE	INPUT MODE
N	NPN
P	PNP
C	Contact
V 05	5V pulse
12	12V pulse
24	24V pulse

CODE	Analog O/P
N	None
V	0~10V
I	0~20mA

CODE	Communication
N	None
8	RS485

CODE	Aux. POWER
A	AC 115/230V
ADH	AC/DC85~264V
ADL	AC/DC20~90V

CS2-TM Input Signal **-** RELAY O/P / Analog O/P / RS485 PORT / PULSE MODE / Aux. Power

CODE	INPUT SIGNAL
A1	0(4)~20mAdc
V1	0~10Vdc
VA	0~50mVdc
VB	0~60mVdc
VC	0~100mVdc
AO	Specify A input
VO	Specify V input

CODE	RELAY O/P
N	None
R2	2 Relays
R3	3 Relays
R4	4 Relays

CODE	Analog O/P
N	None
V	0(1)~5V 0~10V
I	0~10mA 0(4)~20mA

CODE	Communication
8	RS485
N	None

CODE	PULSE MODE
R	Relay contact
C	Open Collect
N	None

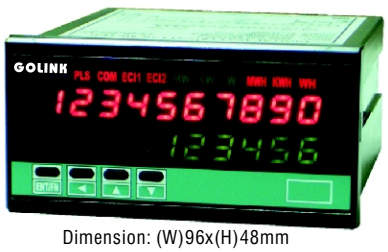
CODE	Aux. POWER
A	AC 115/230V
ADH	AC/DC85~264V
ADL	AC/DC20~90V

Model No.	CS2-VA	CS2-RL	CS2-TM (Analog Input)	CS2-TM (Pulse Input)
Application	VOLT/CURRENT Indicator	Pulse (Frequency) Indicator	Multifunction Totalizer	Multifunction Totalizer
Measurement	Vac, Vdc, Aac, Adc	RPM/RPS/Line Speed/Frequency	mVdc from Shunt Vdc, mAdc from flow-meter	Pulse from Flowmeter/Encoder/Proximity switcg/Photo Sensor for length control
Input Range	Voltage: 0~600V, Current: 0~10A for DC/A//TMRS	0.01~100KHz / ~140KHz (optional) Contact, NPN, PNP, Voltage Pulse	0~50mV / 0~100mV, 0~10V, 0~20mA or specify V / A input with Input High & Low function	From 0.01Hz~140.00KHz with auto-range function 3 setting modes for K factor, 1/K factor & Flow-speed to match the different output
Display Range	Analogue Input High/Low setting Hi/Lo scaling: -19999 ~ +29999	0.0000 ~ 99999 (with decimal point auto moving)	(Totalizer): 0~9999999999 (Batch): 0~999999 (Immediate PV): -19999~29999	(Totalizer): 0~9999999999 (Batch): 0~999999 (Immediate PV): -19999~29999
Accuracy	DC: ± 0.04% of F.S.±1C AC: ±0.1% of F.S.±1C	≤±0.005% of F.S.±1C	≤±0.04% of F.S.±1C for PV	≤± 0.005% of F.S.±1C
User Function	Pass code, Function Loack, Low Cut, Average, Digit Filter ..... ECI: PV Hold, Max./Min. Hold, Relative PV, DI		Pass code, Low Cut, Average, ECI: Gate, Reset for totalizer & Preset	Pass code, Low Cut, Average, ECI: Gate, Reset for totalizer & Preset
Control Output	4 Relays(10A/115Vx2, 3A/115Vx2) for Hi/Lo/HH/LL with Start Delay, Hysteresis, Relay ON/OFF delay, Energized Hold, DO		4 Relays for Hi/Lo/HH/LL with start delay, Hysteresis, Relay On Delay, or N/C/R Mode	4 Relays for Hi/Lo/HH/LL with start delay, Hysteresis, Relay On Delay, or N/C/R Mode
Analog Output	0~10V or 20mA Isolation with input & Powered Accuracy: 0.1% of F.S., 16 bits DAC; (Analog output relative scaling high & Low)		0~5V; 1~5V ; 0~10V 0~10mA; 0(4)~20mA	0~5V; 1~5V ; 0~10V 0~10mA; 0(4)~20mA
Communication	Modbus RTU mode, 1200/2400/9600/19200/38400 programmable			
Response Time	≤100 msecond (when the AvG="1")			
Adjustment	Digital adjust for Zero & Span of PV & Analogue Output			Digital Calibration
Power Supply	AC 115V, 230V, 50/60Hz ; Option: DC 12V, 24V, 48V			
Operating Temp.	0 ~ 60°C			
Operating Humi.	20 ~ 95% RH, Non-condensing			
Temp. Coefficient	100ppm / °C (0~50°C)			
Dielectric Strength	AC 2KV, (1min. Between Power / Input / Output); AC3KV, (1min. Between Terminal /Case)			
Insulation Resistance	DC 500V 100MW (Between Power / Input / Output)			
Installation / Dimension:	By Panel Mounting, Panel Cutout: W92xH44mm, Meter Dimension: W 96 x H 48 x D 120mm			

MWH-10 10 DIGITAL ENERGY METER

The meter has been designed in a timer for accumulation time setting of energy. When the time is over of setting, the energy will stop to accumulate; even the load has been running. It's very useful function for consumption testing of electric appliances and equipments.

- **Measuring Watt & Watt-Hr / 1P2W, 1P3W, 3P3W, 3P4W Unbalanced systems**
- **Direct input 500V/50A maximum with high accuracy current transformer**
- **2 external control inputs can be programmed individual to be relative**
  - Active Power (Watt): Relative PV (Tare) / PV Hold / Max. Or Min. Hold
  - Active Energy (Watt-Hour): Gate / Reset, Timer Reset/DI(remote monitoring).....



Dimension: (W)96x(H)48mm

■ ORDER INFORMATION

MWH-10 - Connection **-** A input Range / V input Range / Input Frequency **—** Output 1 & 2 **-** Aux. Power **-** Other Option

CODE	CONNECTION
12	1P2W Unbalanced
13	1P3W Unbalanced
33	3P3W Unbalanced
34	3P4W Unbalanced

CODE	Input Range
A1	0~1A
A5	0~5A
AF	0~50A
V1	50~500V
V2	220~110V(1P3W)
AO VO	Specify (A & V i/p)

CODE	Input Frequency
5	50Hz ±3Hz
6	60Hz ±3Hz
E	400Hz ±3Hz
F	Specify

CODE	OUTPUT (1)
N	None
PC	Pulse(O.C)
PR	Pulse(Relay)
I	4(0)~20mA
V	0~10V
R	Relay (1st)

CODE	OUTPUT (2)
N	None
8	RS485
R	Relay (2nd)

CODE	Aux. POWER
A	AC 115/230V
ADH	AC/DC85~264V
ADL	AC/DC20~90V

CODE	Other Option
N	None
SCT	Stop Count Timer