



**Standard Specifications Type: MS3720**  
**Slim-shaped Plug-in Isolated Dual Output CT Transmitter**

**MS3700**

**Overview**

This MS3720 CT Transmitter performs RMS operation of AC signal and A/D conversion thereof to generate isolated No.1- and No.2- outputs. (RoHS - conformed)

**Ordering Format**

MS3720 -  -  -  -

Type \_\_\_\_\_

Power Supply \_\_\_\_\_  
 A : AC 85 ~ 264V D : DC 24V  
 P : DC 85 ~ 264V

Input Signal (AC signal) \_\_\_\_\_  
 1 : 0 ~ 1A AC 50/60Hz  
 5 : 0 ~ 5A AC 50/60Hz

Output-1 \_\_\_\_\_  
 A : 4 ~ 20mA DC      1 : 0 ~ 10mV DC  
 D : 0 ~ 20mA DC      2 : 0 ~ 100mV DC  
 Z : Designated DC    3 : 0 ~ 1V DC  
                             4 : 0 ~ 10V DC  
                             5 : 0 ~ 5V DC  
                             6 : 1 ~ 5V DC  
                             3W : ± 1V DC  
                             4W : ± 10V DC  
                             5W : ± 5V DC  
                             0 : Designated VDC

Output-2 \_\_\_\_\_  
 No entry : None  
 Similar to Output-1

☞ When Out-1 is set for Voltage, Out-2 cannot be designated for Current.  
 ☞ When both outputs are set for 4~20mA, the Output Load will be less than 350ohm.

Option \_\_\_\_\_  
 No entry : None  
 / X : Special Order ..... +¥10,000  
 \* As for special order, consult MTT.

**Items to be specified at ordering**

•Type of instrument  
 (Ex.) MS3720-A-5A6

Other items to be specified  
 •For Output "0" : MS3720-A-160 ( output 2~5V )  
 •For Option "X" : MS3720-A-1AA/X  
 ( Response Time : 100msec max. 0~90% )



**SPECIFICATIONS**

●Power Supply Section

Power Supply	AC85~264V (47~63Hz, Rating 100~240V)
	DC24V±10%
	DC85~264V (Rating 100~240V)

Power Sensitivity Within ±0.1% of Span for each power supply voltage

Power Supply Fuse 160mA fuse

Maximum Power Consumption

Power Supply	AC85~264V	DC24V	DC85~264V
1 Single Output	4.5VA max. /	1.2W max. /	4.8W max.
2 Dual Output	5.0VA max. /	1.6W max. /	6.0W max.

●Input Section

Input Resistance	AC 5A input	2mΩ (shunt resistor)
	AC 1A input	10mΩ (shunt resistor)

Maximum Input Current

Continuous, 120% of rated input value  
 Instantaneous, 10times rated input value  
 (3 sec.)

Crest Factor 3 maximum

●Output Section

Output Load

Voltage Output (DC)	1V Span or larger.	2mA max.
	10mV	10kΩ min.
	100mV	100kΩ min.

Current Output (DC)	4~20mA Single output	750Ω 以下
	4~20mA Dual output	Out-1 550Ω max. Out-2 350Ω max.

Zero Adjustment Range Approx. ±5% of Span  
 (Adjustable by Trimmer on front panel)

Span Adjustment Range Approx. ±5% of Span  
 (Adjustable by Trimmer on front panel)

Range of Products available

	Current	Voltage
Output Range (DC)	0~20mA	-10 ~10V
Output Span (DC)	4~20mA	10mV~20V
Output Bias	0~100%	-100~100%

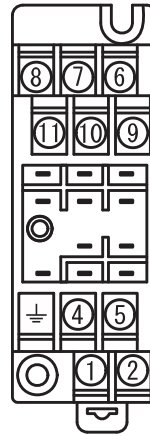
(Ex.1) 4~20mA ⇒ output span 16mA, bias 25%  
 (Ex.2) -1~4V ⇒ output span 5V, bias -20%

\* Current Output smaller than 0.1mA shall be out of the accuracy guarantee.

● Standard Performance

<b>Conversion Accuracy</b>	±0.25%/F.S. in range higher than 10% of Span (@25°C ± 5°C)
<b>Temp. Characteristics</b>	Within ±0.2% of Span with every 10°C variation
<b>Response Time</b>	400msec max. (0~90%) @100% step input
<b>C M R R</b>	100dB min. (500V AC, 50/60Hz)
<b>Signal Isolation</b>	Between Input—Out1—Out2—Power Supply—Ground, mutually
<b>Isolation Resistance</b>	100MΩ min. (@500V DC) Between Input—Out1—Out2—Power Supply—Ground
<b>Dielectric Strength</b>	Between Input—[Out1, Out2]—[Power Supply, Ground] :2000V AC, Shut Down Current 0.5mA for 1 minute Between Power Supply—Ground :2000V AC, Shut Down Current 5mA for 1 minute Between Out1—Out2 :500V AC, Shut Down Current 0.5mA for 1 minute
<b>S W C</b>	Conformed to ANSI/IEEE C37.90.1-1989
<b>Operating Environment</b>	Temperature : -5~55°C Humidity : 5~90%RH (Non-Condensing)
<b>Storage Temperature</b>	-10~60°C

Terminal Arrangement / Signal Assignment



①	P (+)	POWER
②	N (-)	
③	GND	
④	+ OUTPUT 1	
⑤	- OUTPUT 1	
⑥	(L) INPUT	
⑦	+ OUTPUT 2	
⑧	- OUTPUT 2	
⑨	L INPUT	
⑩	N INPUT	
⑪	(N) INPUT	

● Installation / Physical Specifications

<b>Installation</b>	Wall-mounting &/or DIN-rail mounting
<b>Wiring</b>	M3.5 screw terminal connection (With P.S terminal cover/Screw drop-protection) The shunt resistor attached should be installed to the terminal block. (Terminal No.⑨⑩)
<b>Screw Tightening Torque</b>	0.8~1[N·m] recommendable
<b>Outer Dimensions</b>	W29×H86×D125mm (incl. set screws and terminal block, but excluding shunt resistor)
<b>Mass</b>	Main Body 120g max, Terminal Block 80g max. Shunt Resistor 5g max.

● Materials

<b>Housing</b>	ABS resin (UL-94V-0)
<b>Terminal Block</b>	ABS resin (UL-94V-0)
<b>Terminal Screws</b>	Iron / Nickel-plated
<b>Terminal Surface Treatment</b>	0.2 μm gold-plated
<b>P.C. Board</b>	Glass-Epoxy (FR-4:UL-94V-0)
<b>Moisture-proof Coating</b>	HumiSeal 1A27NS (Polyurethane Resin)

Block Diagram

