

Product Specification Sheet

Model: MS3704SW

MS3700

86

Slim Plug-In High-Level Signal Conditioner (Isolator) with Isolated Dual Output (I/O Switch-Selectable)

DESCRIPTION

The MS3704SW is a slim, plug-in high-level signal conditioner (isolator) that converts DC current or voltage signals into commonly used DC signals and provides an isolated dual output. This model features built-in input and output selector switches, which allow users to preset either 1-5V or 4-20mA input and output signals.

ORDERING CODE

	MS3704SW-□
Model —	
Power Supply ——	
A : 100 to 240V AC (50 to	60Hz)
D : 24V DC	P : 100 to 240V DC
Ontions	

Options —— No code: None

/H: Polyurethane conformal coating

/X: Others (Special order)

* For non-standard options, ask MTT for availability.

ORDERING INFORMATION

To place an order, please use the ordering code format as shown above.

(e.g.) MS3704SW-A

Another Ordering Example:
For an option code of "X": MS3704SW-A/X (0-90% response
time: 200ms max.)

SPECIFICATIONS

●POWER SECTION			
Power	100 to	240V AC: 85	to 264V AC (47
Requirements	to 63H	z)	
	24V D	C: 24V DC±10)%
	100 to	240V DC: 85	to 264V DC
Power Sensitiv	vity Better	than $\pm 0.1\%$ of	span for each
	power	supply range.	
Power Line Fuse 160mA fuse is installed (standard).			ed (standard).
Power Consumption			
Power	100-240V AC	24V DC	100-240V DC
	6.5VA max.	2.0W max.	2.5W max.
●INPUT SE	●INPUT SECTION		

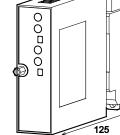
Input Signal	1 to 5V or 4 to 20mA
	Selectable by the rear-accessible
	switch.
Input Resistance	
Voltage Input (DC)	$1M\Omega$ min. with or without power.
Current Input (DC)	250Ω
Allowable Input Volt	age
Voltage Input	30V DC max., continuous.

OUTPUT SECTION

Current Input

Output Signal	1 to 5V or 4 to 20mA
	Selectable by the front-accessible
	switch.

40mA DC max., continuous



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Allowable Output L			
Voltage Output	Output 1: 2mA max.		
(DC)	Output: 2 2mA max.		
Current Output	Output 1: 750Ω max.		
(DC)	Output: 2 350Ω max.		
Zero Adjustment	Output 1: Approx. $\pm 5\%$ of span.		
	Output: 2 Approx. $\pm 5\%$ of span.		
	(Adjustable by the front-accessible		
	trimmer.)		
Span Adjustment	Output 1: Approx. ±5% of span.		
	Output: 2 Approx. $\pm 5\%$ of span.		
	(Adjustable by the front-accessible		
	trimmer.)		
Burnout	Selectable between upscale and		
Protection	downscale only for voltage input.		
	(Downscale for current input)		
●PERFORMAN	CE		
Accuracy Rating	Better than ±0.1% of span (at		
Accuracy Maining	25°C±5°C).		
Temperature	Better than ±0.2% of span per 10°C		
Effect	change in ambient.		
Response Time	85ms max. (0 to 90%) with a step		
rtesponse rime	input at 100%.		
CMRR	100dB min. (500V AC, 50/60Hz)		
Isolation	4-way isolation between input, output		
1301411011	1, output 2, and power.		
Insulation	$\frac{100 \text{M}\Omega \text{ min.}}{(@.500 \text{V DC})}$ between		
Resistance	input, output 1, output 2, power, and		
	ground.		
Dielectric	Input / [Output 1, Output 2] / [Power,		
Strength	Ground]: 2000V AC for 1 minute		
	(Cutoff current: 0.5mA)		
	Power / Ground: 2000V AC for 1		
	minute (Cutoff current: 5mA)		
	Output 1 / Output 2: 500V AC for 1		
	minute (Cutoff current: 0.5mA)		
Surge Withstand	Tested as per ANSI/IEEE		
Capability	C37.90.1-1989.		
Operating	Ambient temperature: -5 to 55°C		
Environment	Humidity: 5 to 90% RH		
	(non-condensing)		
Storage	-10 to 60°C		
Temperature	10 10 00 0		
Tomporature			

PHYSICAL	
Installation	Wall/DIN rail mounting
Wiring	M3.5 screw terminal connection
	(with a power terminal block cover &
	drop-proof screws)
Screwing Torque	0.8 to 1.0 [Nm] * Recommended
External	$W29 \times H86 \times D125 \text{ mm}$
Dimensions	(including the mounting screw and
	socket)
Weight	Main unit: 120g max.
	Socket: 80g max.
● MATERIAL	
Housing	ABS resin (UL 94V-0)
Terminal Block	PBT resin (UL 94V-0)
Terminal Block	PC resin (UL 94V-2)
Cover	*
DIN Rail Stopper	PP resin (UL 94HB)
Screw Terminal	Nickel-plated steel

Contacts Material and Finish	Brass with 0.2μm gold plating
Printed Circuit	Glass fabric, epoxy resin
Board	(FR-4: UL 94V-0)
STANDARDS	CONFORMITY
EC Directive	EMC Directive (2014/30/EU)
Conformity	EN61326-1:2013
	Low Voltage Directive (2014/35/EU)
	IEC61010-1
	EN61010-1:2010/A1:2019
	Installation Category II
	Pollution Degree 2
	Maximum operating voltage 300V
	Reinforced insulation between
	[input/output/GND] and power.

INPUT SETTING

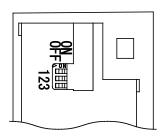
Input: 1 to 5V
Burnout: Downscale

1 2 3

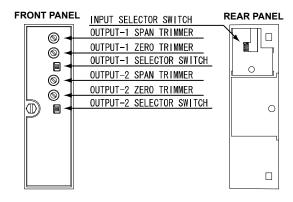
OFF ON OFF

Input: 4	to 20m	4
1	2	3
OFF	OFF	ON

REAR PANEL



FRONT & REAR PANEL COMPONENTS

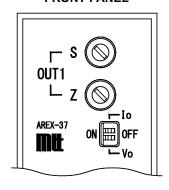


OUTPUT SETTING

Output:	4 to 20r	nΑ
Io	Vo	
ON	OFF	

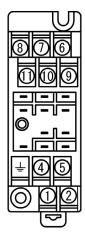


FRONT PANEL



Note: Unless otherwise requested, both input and output will be set to 4 to 20mA.

TERMINAL ASSIGNMENTS



1	P (+) POWER
2	N (-)
\pm	GND
4	+ OUTPUT 1
(5)	- OUTPUT 1
6	N.C.
7	+ OUTPUT 2
8	- OUTPUT 2
9	+ INPUT
10	- INPUT
11)	N.C.

BLOCK DIAGRAM

