



DESCRIPTION

The MS3707H is a slim, plug-in distributor that powers a two-wire transmitter, converts its 4 to 20mA signals into commonly used DC signals, and provides an isolated single output. It isolates bidirectional HART communication signals.

This model can also be used as an isolator.

ORDERING CODE

MS3707H - - A

Model

Power Supply

A: 100 to 240V AC (50 to 60Hz)

D: 24V DC

P: 100 to 240V DC

Input

4 to 20mA DC from 2-wire transmitters

Output

A: 4 to 20mA DC

Options

No code: None

/X: Special order

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

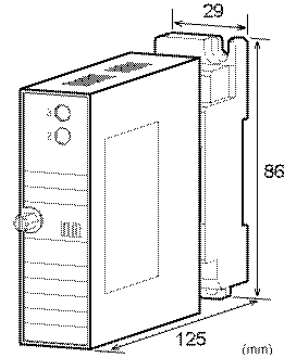
ORDERING INFORMATION

To place an order, please use the ordering code format as shown above. (e.g.) MS3707H-A-A

SPECIFICATIONS

POWER SECTION

Table with 4 columns: Power Requirements, Power Sensitivity, Power Line Fuse, Power Consumption. Rows include AC/DC voltage ranges, span accuracy, fuse details, and power ratings.



INPUT SECTION

Table with 2 columns: Input Signal, Input Resistance, Transmitter Power Supply, Limit Current for Short-Circuit Protection, Permissible Short-Circuit Duration. Rows specify 4 to 20mA DC, 250Ω, output voltage (25V/18V), 26mA, and continuous duration.

OUTPUT SECTION

Table with 2 columns: Maximum Output Load, Zero Adjustment, Span Adjustment. Rows specify 600Ω max, ±5% span, and adjustable span.

HART COMMUNICATION

Table with 2 columns: Frequency Bandwidth, Transmission Gain, Communication Mode. Rows specify 500Hz to 10kHz, -3dB gain, and bidirectional mode.

● PERFORMANCE

Accuracy Rating	Better than $\pm 0.1\%$ of span (at $25^{\circ}\text{C} \pm 5^{\circ}\text{C}$).
Temperature Effect	Better than $\pm 0.2\%$ of span per 10°C change in ambient.
Response Time	500ms max. (0 to 90%) with a step input at 100%.
CMRR	100dB min. (500V AC, 50/60Hz)
Isolation	4-way isolation between input, output, power, and ground.
Insulation Resistance	100M Ω min. (@ 500V DC) between input, output, power, and ground.
Dielectric Strength	Input / Output/ [Power, Ground]: 2000V AC for 1 minute (Cutoff current: 0.5mA) Power / Ground: 2000V AC for 1 minute (Cutoff current: 5mA)
Operating Environment	Ambient temperature: -5 to 55°C Humidity: 5 to 90% RH (non-condensing)
Storage Temperature	-10 to 60°C

● PHYSICAL

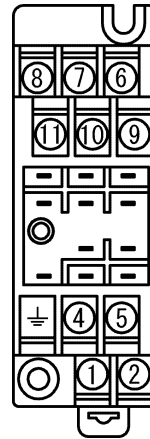
Installation	Wall/DIN rail mounting
Wiring	M3.5 screw terminal connection (with a power terminal block cover & drop-out prevention screws)
Screwing Torque	0.8 to 1.0 [Nm] * Recommended
External Dimensions	W29 \times H86 \times D125mm (including the mounting screw and socket)
Weight	Main unit: 120g max. Socket: 80g max.

● MATERIALS

Housing	ABS resin (UL 94V-0)
Terminal Block	PBT resin (UL 94V-0)
Terminal Block Cover	PC resin (UL 94V-2)
DIN Rail Stopper	PP resin (UL 94HB)
Screw Terminal	Nickel-plated steel
Contacts Material and Finish	Brass with 0.2 μm gold plating
Printed Circuit Board	Glass fabric epoxy resin (FR-4: UL 94V-0)
Anti-Humidity Coating	HumiSeal [®] 1A27NS (Polyurethane)

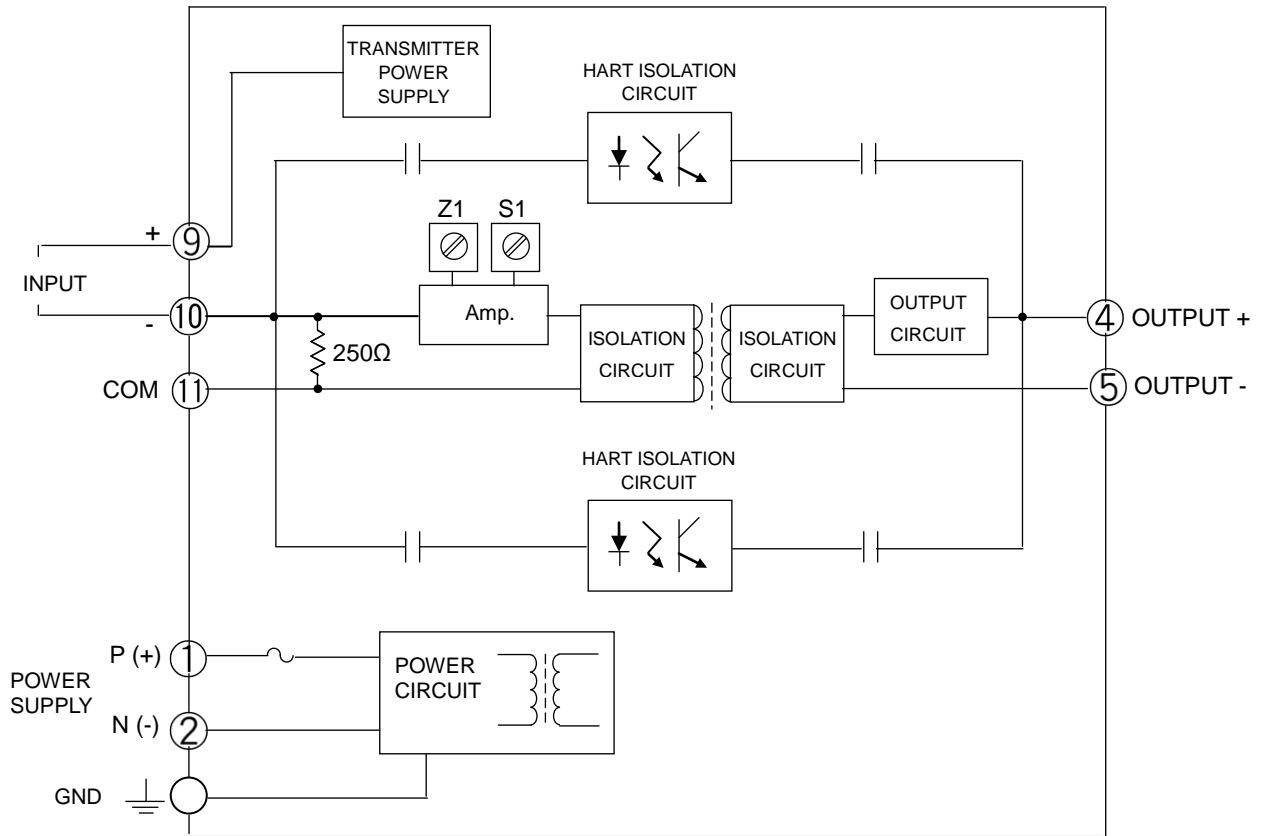
* HumiSeal[®] is a registered trademark of Chase Corporation.

TERMINAL ASSIGNMENT

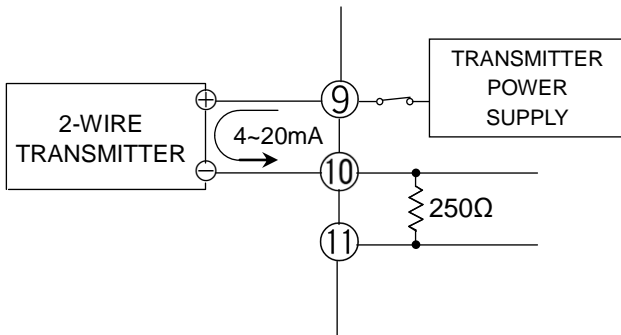


①	P (+)	POWER
②	N (-)	
⊥	GND	
④	+ OUTPUT 1	
⑤	- OUTPUT 1	
⑥	N.C.	
⑦	N.C.	
⑧	N.C.	
⑨	+ INPUT	
⑩	- INPUT	
⑪	COM	

BLOCK DIAGRAM



Used as a distributor:



Used as an isolator:

