



# DIN RAIL MOUNTED ANALOG SIGNAL ISOATLOR

— ANALOG INPUT, PROGRAMBALE —

4-20MA, 0-20mA,0-5VDC, 1-5VDC,0-10VDC, RS485, Relay OUTPUT

Model No.: MSC90A



Ver2.0

# General Specifications

GS 19A16D01-01EN

## ANALOG SIGNAL ISOLATOR DIN RAIL MOUNTED MSC90A

### Overview

#### MSC90A DIN Mounted Analog Signal Isolator, Signal Converter

Current, voltage input, with input-output-power isolated, transmitting and isolating mA, DC signal to various instruments or DCS, PLC etc control systems.

### Feature

- 1 input 1 output, 1 input 2 outputs, 2 inputs 2 outputs
- Transmission accuracy (20°C): (0.2%FS+1) digit
- Temperature shift: 0.0075%FS/°C
- Power-Input-Output isolation: 1.5KVrms, 1min, 50HZ
- Input /Output signal: 4-20ma, 0-20ma, 0-5VDC, 1-5VDC,0-10VDC  
Relay output; RS485 MODBUS-RTU output
- With LCD indicator or without indicator
- Standard 35mm Rail Installation with pluggable terminals
- Size:109x116.5x18.5mm
- Independent power supply :20-32VDC, AC100-260VAC

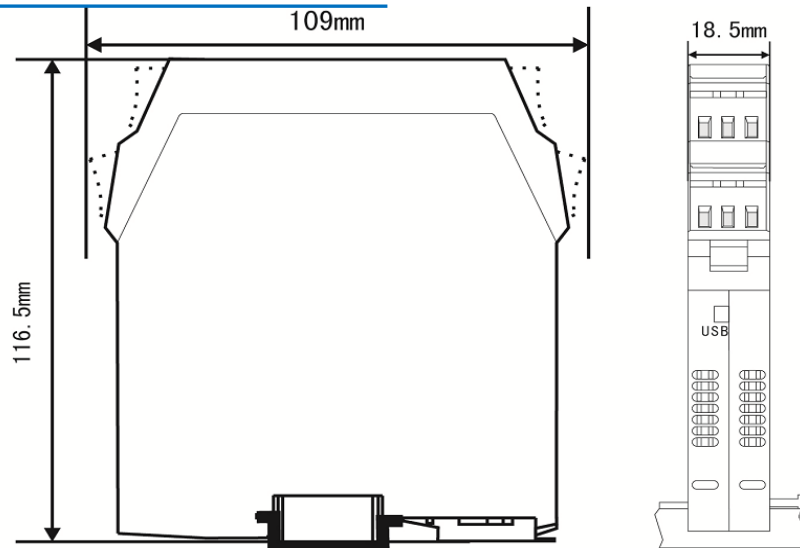
### Specification

Type	1 input 1 output, 1 /2input 2 outputs	● Accuracy	+/-0.15%FS (20°C)
● Input Signal	4-20mA,0-10ma,0-20mA; 1-5V,0-5V,0-10VDC;	Temperature shift	0.0075%/°C
Input impedance	≤100Ω when current mA input; ≥250KΩ when voltage VDC put	Isolated ability	Input-output-power 1.5KV, 1min, 50Hz
Distributed power	19-25VDC, ≤30mA	Insulation resistance	Input-output-power ≥100MΩ/500VDC
Max. Input Value	≤30mA, ≤10.5V	Response time:	1 output: <0.3S, 2 outputs: <0.5S
● Output	4-20mA,0-10mA;0-20mA;1-5V,0-5V,0-10V	● Power supply	AC100-265V(50-60HZ); DC24V(+/-10%)
Load resistance	≤500KΩ when 4-20mA,0-10mA,0-20mA ≥250KΩ when 0-5V,1-5VDC ≥500KΩ when 0-10VDC	Consumption (AC100-265V)	<1.7W/(1 output); <2.2W (2 outputs)
Relay Output	0.6A/125VAC, 2A/30VDC	With distributed power	<2.4W(1 output); <3.1W (2 outputs)
.RS485 Output	MODBUS-RTU Protocol	Consumption (24VDC)	<2.5W/(1 output); <3W (2 outputs)
Rate/Distance	9.6kps, ≤1Km for RS485 communication	With distributed power	<3.2W(1 output); <3.9W (2 outputs)
		Case material/Protection	PC/ IP20
		EMC	GB/T18268 (IEC61326-1)
		Size/N.W.	121.2Xx108x13mm/0.14kg
		Working T&H	-20 to 60°C/25% to 85%RH
		Storage temperature	40 to 80°C

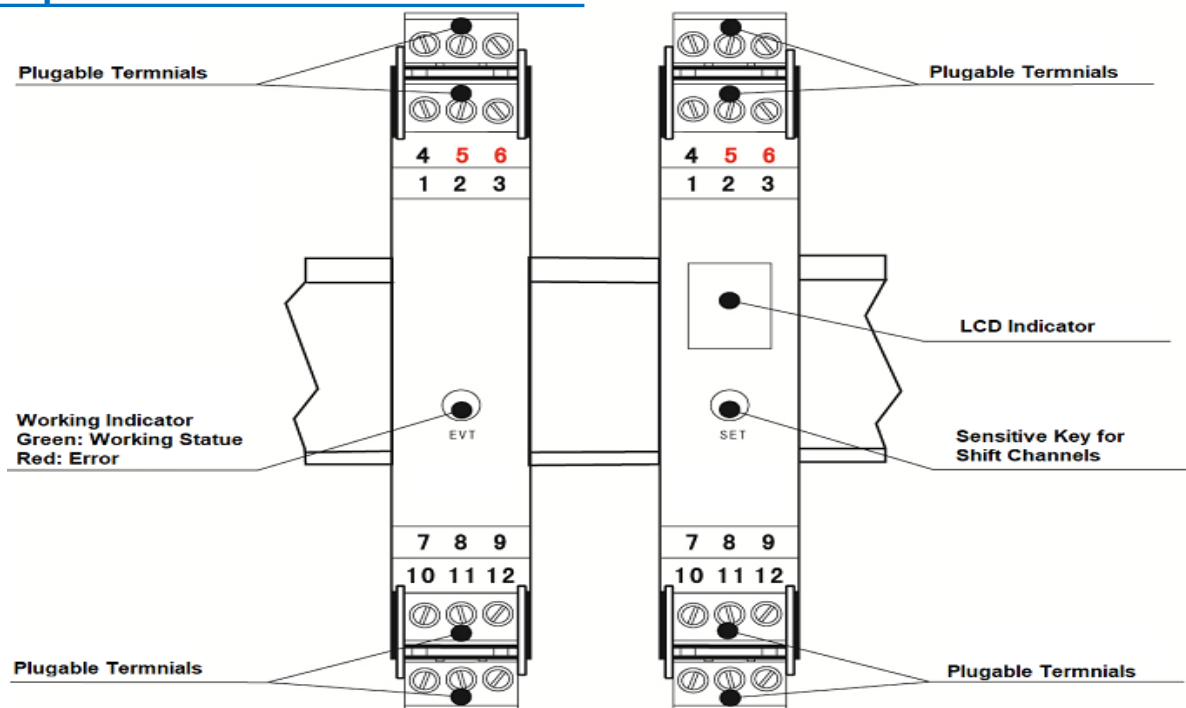


MSC90A Analog Signal Isolator, Converter  
DIN Rail Mounting, Programmable

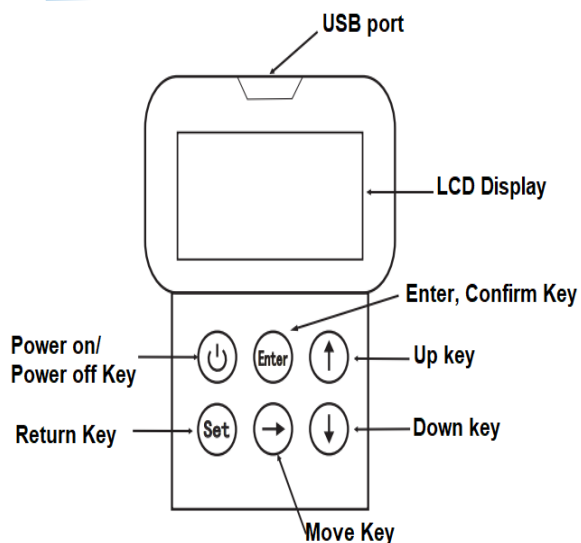
## Size (mm)



## Description



## Programmer for Input Type and Range Setting, Relay Output



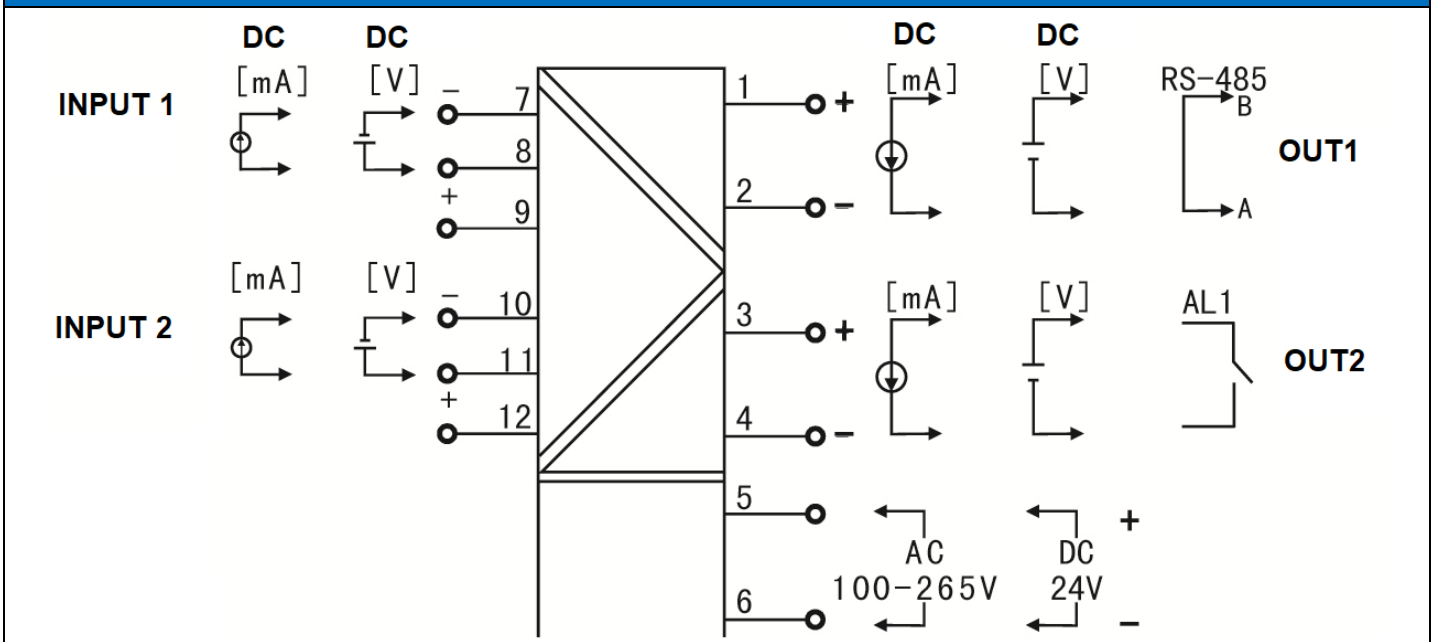
. The input & output type and range and other parameters can be set by this programmer through USB port

. PV the real time value can be displayed in this programmer.

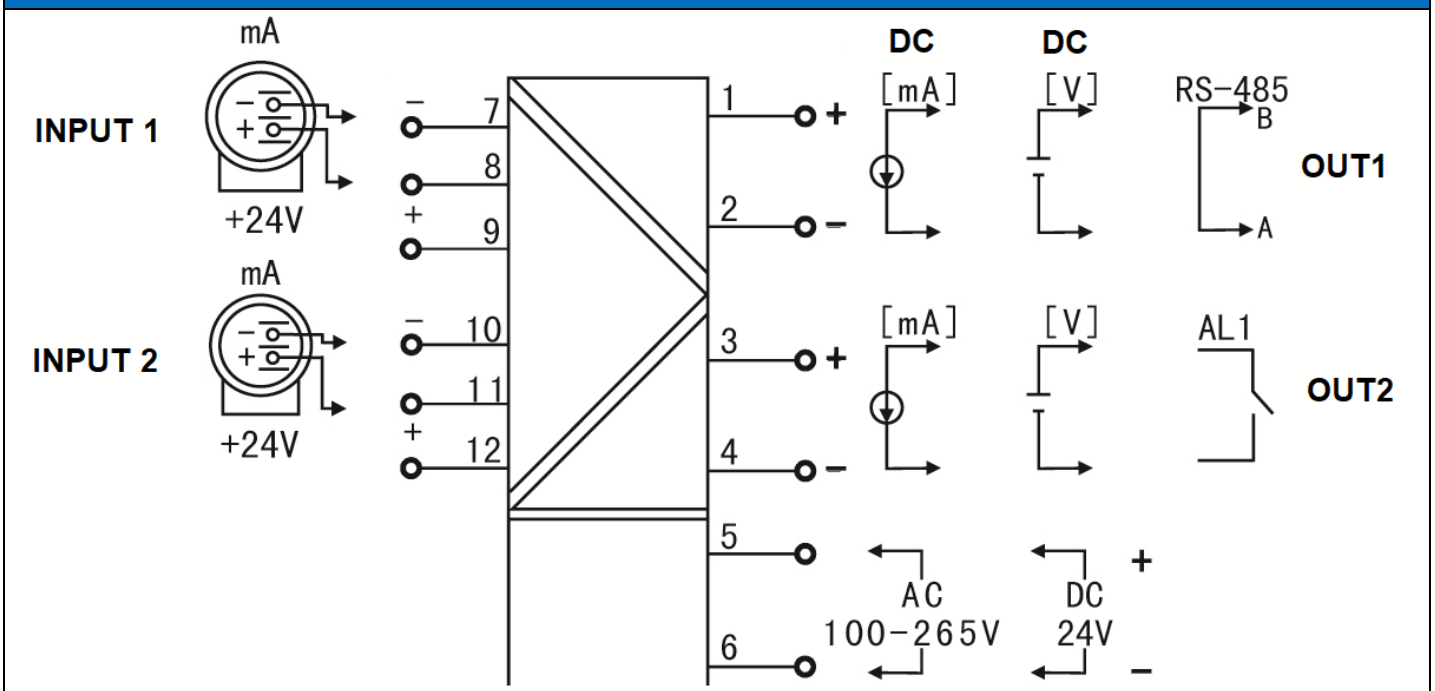
\*Notes: If signal isolator is required to be programmable This programmer should be required to order together.

## Diagram

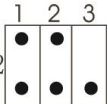

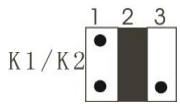
Signal isolator without distrusted power supply for transmitter



Isolated signal isolator with distributed power supply for Transmitter



The input types can be programmable and shifted by the below short circuit ring except input type: 0-10VDC input output; Input 1 and Input 2 connection as follows:

INPUT1: K1 INPUT2: K2	(mA)	(V)
short-circuit ring: 		

Notes: 0-10vdc input; Current, voltage, 0-10vdc, relay, rs485 output cannot be switched, whose hardware is independent ex-work

## Order Code

Order Code: E.g.: MSC90A-NN11-1N1N-N									Description
MSC90A	-X	X	X	-X	X	X	X	-X	<b>MSC90A: DIN Rail Mount Analog Signal Isolator</b>
Indicator	-N								Without indicator
Type	N								Signal isolator without distrusted power supply for transmitter
	P								Signal isolator with distributed power supply for transmitter
Input-Output NO.		11							1 Input 1 output
		12							1 input 2 output
		22							2 Input 2 Output
Input 1		-1							<b>4-20mA(default)</b>
		-2							0-10mA
		-3							0-20mA
		-4							0-5VDC
		-5							1-5VDC
		-6							*0-10VDC (specified, not switched )
		-1S							4-20mA square root
		-2S							0-10mA square root
		-4S							0-5VDC square root
		-5S							1-5VDC square root
		-V5							-5 to 5VDC
		-X							Customized
Input 2		N							None
		...							Please choose correct input type as Input 1's order code
		X							Customized
OUT1		1							4-20mA (default)
		2							0-10mA
		3							0-20mA
		4							0-5VDC
		5							1-5VDC
		6							0-10VDC (specified, not switched )
		C							RS485 Output, MODBSU-RTU
		X							Customized
OUT 2		N							None
		1							<b>4-20ma (default)</b>
		2							0-10mA
		3							0-20mA
		4							0-5VDC
		5							1-5VDC
		6							0-10VDC (specified, not switched )
		L							Relay output
		X							Customized
Power Supply		-N							<b>100-260VAC (50-60Hz)</b>
		-D							<b>24VDC</b>

**Notes:**

**1) Input signals**

\*Input signals mA, V, mV dc can be set by programmer and short circuit ring except input signal 0-10vdc.

\*The input order code is only for calibrated signal ex-work

**2) P type**

Order code: P, input type is only 4-20ma,0-10ma,0-20ma input signals

**3) Outputs signals**

\*mA dc, v dc ,0-10vdc, RS485, relay output cannot be shifted, whose hardware is independent and different ex-work;

\*mA dc or Vdc ex-work can programable by programmer as follows:

e.g., 1: 4-20ma output, can be set as 0-10ma, 0-20ma by programmer but cannot switched to 0-5vdc, 1-5vdc, 0-10vdc, rs485, relay

e.g., 2: 0-10ma output, can be set as 0-20ma, 4-20ma by programmer but cannot switched to 0-5vdc, 1-5vdc, 0-10vdc, rs485, relay

e.g. 3: 0-20ma output, can be set as 0-20ma, 4-20ma by programmer but cannot switched to 0-5vdc, 1-5vdc, 0-10vdc, rs485, relay

e.g. 4 :0-5vdc output, can be set as 1-5vdc by programmer but cannot switched to 4-20ma, 0-10ma, 0-20ma, 0-10vdc, rs485, relay

e.g. 5 :1-5vdc output, can be set as 0-5vdc by programmer but cannot switched to 4-20ma, 0-10ma, 0-20ma, 0-10vdc, rs485, relay

e.g.6: 0-10vdc output specified, can be not set and shifted to any other signals output

e.g.7: rs485 output, can be not set and shifted to any other signals output, which is only on OUT1 ex-work

e.g.8: Relay output, can be not set and shifted to any other signals output, which is only on OUT2 ex-work

**4)Programmer**

\*If input signals or outputs signal is required to be programmable, please kindly purchase our programmer together;

\*if our programmer is not required, please kindly confirm us the input and output type you need exactly with order code when order.



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