



9000U⁺ Signal Isolator Single/Dual Output

Advanced. Isolated. Reliable

Masibus 9000U⁺ signal isolator is compact yet rugged 4 wire isolator used for reliable isolation and attenuation of industry standard field signals. 9000U⁺ is available in single and dual output models.

9000U⁺ has higher noise rejection ratio that ensures accurate and noise free signal conditioning. Its compact DIN Rail mount design occupies less space and reduces cost of overall installation.

With dual output option this model also acts as signal distributor. A typical application could be where the signal has to be distributed for indication on local panel, field control room, main control room or DCS system. The isolator provides a good protection for sensitive system parts against voltage spikes etc.

Model 9000U⁺ offers a wide range of input/ output signal types which includes mA, mV, VDC which are factory settable as per user requirements. It has built-in transmitter power supply (TPS) to drive field transmitters delivering 0/4-20 mA DC outputs signal. An exceptional feature of advanced extended universal power supply for the range of 20V to 265V DC or AC makes 9000U⁺ suitable for most of the power supply range available in field thus providing easy installation.

9000U⁺ model is further enhanced with switch selectable I/O configuration for I/O ranges 0/4-20mA, 0/1-5V and 0-10V. This feature allows user to have freedom to change 0/4-20mA, 0/1-5V and 0-10V I/O types only, using switch available on side of device and with minor tuning using front accessible trim-pots, depending upon field requirements.

Masibus 9000U⁺ model offers an excellent accuracy and stability for reliable operation in hostile environments and full isolation safely separates input channel, each output channel and the power supply.

Features

- Compact DIN Rail mount design of 35mm for single and dual output
- Rugged & accurate 4 wire isolator
- Switch option for 0/4-20mA, 0/1-5V and 0-10V I/O selection
- Extended universal power supply range: 20V to 265V DC or AC
- 2.0KVAC three port isolation
- Up to 2 outputs with short circuit protection
- High CMRR and NMRR
- High output load driving capability
- Wide zero & span adjustment limits
- Front calibration facility via multiturn trimpot

Applications

- Field interface device
- Isolation of field signals
- Distribution of signals
- Translation of signals
- Factory automation
- SCADA
- DCS
- Impedance matching of transmitters and receiver instruments
- Powering of field transmitters

TECHNICAL SPECIFICATIONS

Input		Power Supply	
Input Type	Voltage/ Current	Voltage	20 to 265VDC/AC, 45Hz-65Hz
Input Range	'S' Version: 4-20mA (standard) 'M' Version: 0/4 to 20mA, 0/1 to 5V, 0 to 10VDC (DIP switch selection) Factory settable input as per user requirements are: For voltage: Min: 0 to ±10mV DC Max: 0 to ±600VDC For current: Min: 0 to ±1mA Max: 0 to ±100mA	Power Consumption	Less than 5VA
Input Impedance	Current I/P ≤10 Ω Voltage I/P ≥1 MΩ	Power ON status LED	Red
Temperature Coefficient	≤100 ppm/ °C	Isolation (Withstanding voltage) Between primary terminals* and secondary terminals**: At least 2.0 KV AC for 1 minute Between primary terminals* and grounding terminal: At least 2.0 KV AC for 1 minute Between grounding terminal and secondary terminals**: At least 2.0 KV AC for 1 minute Between secondary terminals**: At least 2.0 KV AC for 1 minute	
CMRR	>100 dB	* Primary terminals indicate power terminals. ** Secondary terminals indicate I/O terminals.	
NMRR	>70 dB	Insulation resistance: >200MΩ@1000V DC between All terminals and grounding terminal	
Output		Physical	
Output Type	Voltage/ Current	Mounting Type	DIN Rail (35 mm)
Output Range	'S' Version: 4-20mA (standard) 'M' Version: 0/4 to 20mA, 0/1 to 5V, 0 to 10VDC (DIP switch selection) Factory settable output as per user requirements are: For voltage: Min: 0 to ±100mV Max: 0 to ±10VDC For current: Min: 0 to ±1mA Max: 0 to 20mA	Terminal Block	UL,CSA standard
Response Time	≤ 50ms	Terminal Cable Size	2.5mm ²
Accuracy	± 0.1% of FS	Enclosure Material	ABS
Output Load Capacity	mA: Load voltage ≤15V (e.g. for 4-20mA: 15V/20mA ≤ 750Ω) V: Load current ≤5 mA (e.g. for 0-5V: 5V/5mA ≥ 1 KΩ)	IP Rating	IP20
Output Loop Status LED	Green (Available in 'S' version only)	Dimension (in mm)	75(H) x 35.1(W) x 107.25(D)
Transmitter Power Supply	24VDC (±10%) @26mA (max current limit)	Weight	SOP model: 120 gms approx DOP model: 150 gms approx
		Environmental	
		Operating Temperature	0 to 55 °C
		Relative Humidity	30 to 95% RH (Non-condensing)
		Protection	Conformal coating on PCB

Ordering Code

Model	Input Type	No. of O/P	O/P Type
9000U ⁺	S	X	X
	C	4-20mA	1 One 2 Two

Model	Input Type	No. of O/P	O/P Type-1	O/P Type-2
9000U ⁺	M	X	X	X
	C	4-20mA	1	0
	D	0-20mA	1 One 2 Two	1
	E	1-5VDC	3	2
	F	0-5VDC	4	3
	G	0-10VDC	5	4
	S	Special*	S	5
				S

* Switch selection is not available in special I/O, being factory set.