masibus®

A Sonepar Company

9000L
9000LE
Signal Isolator

| Stable | Robust | Accurate | HART Protocol Supported |

RoHS

Masibus 9000L and 9000LE Signal Isolators are compact yet rugged Isolators used for reliable isolation and transformation of industry Standard field signals. 9000L model is available in one input with one or two output. 9000LE is available in one and two channel input/output with isolation.

9000L series Isolators are highly accurate, have low drift, low Temperature coefficient, fast response, high noise rejection and housed in a compact DIN-Rail mount enclosure.

Model 9000L has Aux supply range of 20 to 265V AC/DC as a unique feature whereas model 9000LE has option of 2W Transmitter Input with HART pass through.

With dual output option, these models 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.

Features

- Compact DIN-Rail mount design of 35mm for one and two ouput.
- 2W transmitter input in 9000LE with HART Pass
- Extended universal power supply range: 20V to 265V DC or AC for 9000L
- High KV 3 port isolation
- High Accuracy, low drift, low temperature effect
- Input and Output well protected
- Fast response suits all applications
- High CMRR and NMRR

Applications

- Isolation of process field signals
- Signal isolation in VFD panels
- Distribution of signals in Automation Panels
- Protect Systems against Field over voltage/Lightning
- Convert/distribute signals
- Impedance matching of transmitters and receiver instruments
- Powering of field transmitters

TECHNICAL SPECIFICATIONS

Input			
	9000L	**9000L-M**	**9000LE**
Input Type	Current	Voltage/ Current	Current
Input Range	4 to 20mA	0 to 10V DC 4 to 20mA	4 to 20mA
Input Impedance	≤100 Ω	Current i/p ≤100 Ω Voltage i/p ≥1 MΩ	≤30Ω
Temperature Coefficient	≤100 ppm/°C		≤50 ppm/°C
CMRR	> 100 dB		
NMRR	> 70 dB		

Output			
	9000L	**9000L-M**	**9000LE**
Output Type	Current	Voltage/ Current	Current
Output Range	4 to 20mA	4 to 20mA 0 to 10V DC	4 to 20mA
Output Load Resistance	≤750Ω@20mA	Current o/p ≤750Ω Voltage o/p ≥2KΩ	≤500Ω@20mA
Accuracy	± 0.25% of FS		± 0.1% of FS
Response Time	≤ 50mS		≤ 50uS
Transmitter Power Supply (Optional)	NA		Open circuit voltage: ≥ 24VDC Available voltage: ≥ 23VDC @ 4mA, ≥ 16VDC @ 20mA
Communications supported	NA		HART pass supported in both channels*

*HART Pass supported with 2W transmitter only

Power Supply		
	9000L / 9000L-M	**9000LE**
Voltage	20 to 265V DC/AC, 45Hz-65Hz	20 to 35 VDC
Power Consumption	≤5VA	With TPS: ≤1.3W/Channel Without TPS: ≤0.7W/Channel
Power ON status LED	Red	

Isolation (Withstanding voltage)		
Between Power to Inputs and Outputs	At least 1.5 KV AC for 1 minute	Galvanic Isolation of 2KVAC for 1 minute
Between Inputs to Outputs	At least 1.5 KV AC for 1 minute	Galvanic Isolation of 2KVAC for 1 minute
Between Output to Output	At least 1.5 KV AC for 1 minute	Galvanic Isolation of 2KVAC for 1 minute
Between Input to Input	NA	Galvanic Isolation of 2KVAC for 1 minute
Insulation Resistance	>20MΩ@500V DC between All terminals and grounding terminal.	>200MΩ@1000V DC between All terminals

Physical	
Mounting Type	DIN-Rail (35 mm)
Terminal Block	UL,CSA standard
Terminal Cable Size	2.5mm²
Enclosure Material	ABS
IP Rating	IP20
Dimension (in mm)	75(H) x 35(W) x 107(D)
Weight	≤ 200 g

Environmental	
Operating Temperature	-20 to 60 °C
Storage Temperature	-30 to 70 °C
Relative Humidity	30 to 95% RH (Non-Condensing)
Protection	Conformal coating on PCB

Ordering Code

Model	No. of Channels		Transmitter Power Supply (TPS)	
9000LE	X		X	
	1	One	Y	Yes
	2	Two	N	No

Model	No of O/P	
9000L	X	
	1	One
	2	Two

Model		Input Type		O/P type-1		O/P type-2	
9000L	M	X		X		X	
		C	4-20mA	1	4-20mA	0	None
		G	0-10V DC	5	0-10V DC	1	4-20mA
						5	0-10V DC