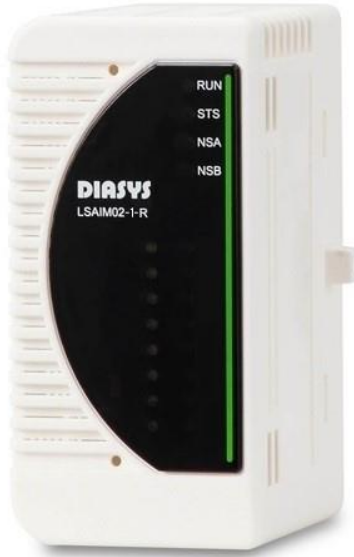


LSAIM02-1-R AI module

LS communication Transmitter inputs : 8 4 to 20 mA

■ Summary



- * Number of inputs : 8 / Transmitter input, DC 24 V distributed type (Channel individual isolation)
- * Input range : 4 to 20 mA
- * Absolute precision : $\pm 0.1\%$ FS @25°C
- * Including temperature drift : Less than ± 100 ppm/°C
- * Module ambient temperature : 0 to 55°C
- * Insulation method : Transformer insulation
- * Supported FXtoLS adapter : LSRLTS-AI01



This module is dedicated to compact retrofit terminal blocks.
Dedicated lock pins are attached to the bottom.

LSAIM02-1-R AI module

LS communication Transmitter inputs : 8 4 to 20 mA

■ Specifications

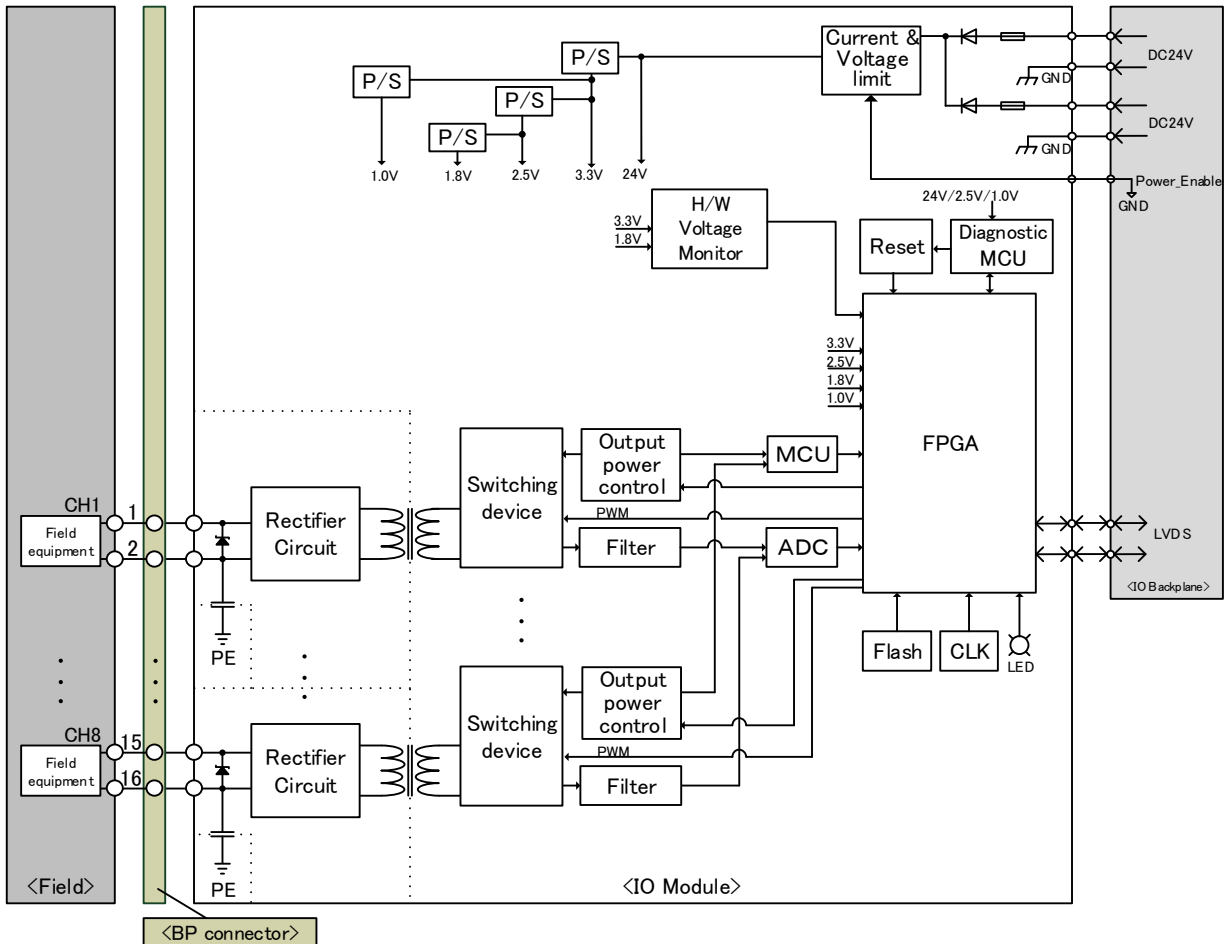
ITEM		SPECIFICATION
Input	Number of channels	8 (Transmitter input, DC 24 V distributed type ^(*) , Individual isolation)
	Range	4 to 20 mA (Full Scale)
	Resolution	16 bits
Absolute precision	@25°C	±0.1% FS
Temperature drift	@-5 to 60°C	Less than ±100 ppm/°C (relative to full-scale)
CMRR		100 dB or more attenuation
NMRR		About 2 dB attenuation (When the first-order lag filter is set to 30 ms or more, attenuation by 20 dB or more)
Data refresh cycle		5 ms /All channels
Input filter		Software digital filter (Channel individual)
Dielectric strength		AC 500 V input terminal - between PE Between input channels
Communication with IOA	Communication method	LVDS
	Communication speed	100 Mbps
HART communication compliant Between actuators Communication specification	Communication method	HART communication (superimposed on 4 to 20 mA signal)
	Communication speed	1200 bps
Self-diagnostic functions		Power voltage check (24 V, 3.3 V, 2.5 V, 1.8 V, 1.0 V) Clock check (FPGA-MCU for diagnosis, MCU for diagnosis -FPGA) Heartbeat check (FPGA-MCU, FPGA-MCU for diagnosis, MCU for diagnosis -FPGA) CRC check (FPGA) AI communication error check Tuning check
Detective		ADC abnormal check I/O signal range check (Overrange, Underrange)
When disconnected		Detect underrange
Protection	(Power supply Protection)	Overvoltage protection Overcurrent protection
Indicator	Display LED	4: RUN (Run)/STS (Status)/NSA (Network status A)/NSB (Network status B)
Insulation method		Transformer insulation
Hot swap		Possible
Power supply		DC 24 V ±20% (The voltage supplied from the backplane)
Environmental conditions	Module ambient temperature	(Operating) 0 to 55°C (Storage) -40 to 85°C
	Module ambient humidity	(Operating / Storage) Less than 95% RH (No condensation)
Vibration		3.5 mm @5 to 8.4 Hz 1 G @8.4 to 150 Hz
Shock		15 G 11 ms
Current consumption		356 mA
Weight		0.13 kg
Dimensions		62 mm (D) x 94 mm (H) x 46 mm (W) (Except projection)
Standard/Directive		EN 61131-2:2007, RoHS






* The maximum voltage between terminals is 33 V when there is no load (disconnection).

LSAIM02-1-R AI module

LS communication Transmitter inputs : 8 4 to 20 mA

Block diagram



- P/S : Power supply
- PWM : Pulse width modulation
- ADC : Analog digital converter
- CLK : Clock
- FPGA : Field programmable gate array
- MCU : Micro control unit
- GND : Ground
- IOA : I/O adapter
- LVDS : Low Voltage Differential Signaling
- BP : Backplane
- PE : Protective Earth
-  : Zener diode
-  : Fuse
-  : Diode
-  : Capacitor
-  : Transformer

When using, please read the instruction manual attached to the product carefully and use it properly.

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