

LSDIM01-1-R DI module

LS communication Digital inputs : 16 2count/pulse

■Summary



- *Number of inputs : 16 (16 ch common isolation)
- *Module ambient temperature : 0 to 55°C
- *Isolation : Digital isolation
Transformer insulation
- *Count : 2 count/pulse
- *Supported FXtoLS adapter : LSRLTS-DI01, LSRLTS-DI11



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

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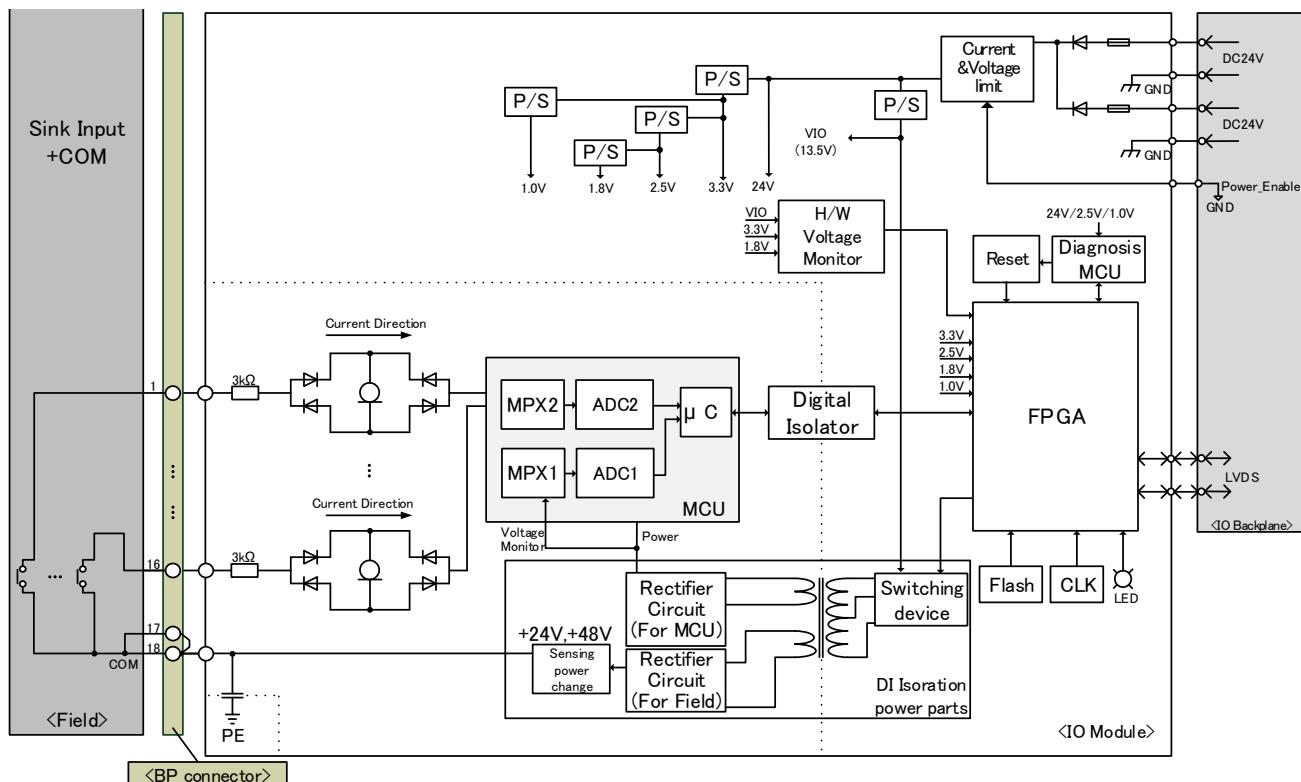
■ Specifications

| ITEM | | SPECIFICATION |
|---------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input | Number of channels | 16 (16 ch common isolation) |
| | Range | ON current More than 2 mA *Selectable power for sense current: +24 V/-24 V/+48 V/-48 V |
| | | OFFcurrent Less than 1.0 mA |
| | | Disconnection Setting disconnection detection ON: Less than 0.5 mA |
| Data refresh cycle | | 0.3 ms/All channels |
| Input filter | | Software digital filter (Channel individual) |
| Dielectric strength | | AC 1500 V Between input terminal and PE |
| Communication with IOA | Communicaton method | LVDS |
| | Communication speed | 100 Mbps |
| Self-diagnostic functions | | Power voltage check (24 V, 3.3 V, 2.5 V, 1.8 V, 1.0 V, VIO) 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) Sense voltage/current check (MCU) MCU power check (MCU) |
| Event DI function(EDI) | | Event DI module: 16 Event signal input: Settable by software (EMS) Time resolution: 1 msec |
| Pulse input function(PI) | | Pulse input module: 16 Input pulse rate: 0 to 500 Hz (Both ON, OFF times shall be more than 0.5 msec.) Count: OFF → ON, ON → OFF (2count/pulse) |
| Detective | | Disconnection detection |
| Protection | IO circuit Protection | Oversupply protection |
| | Power supply Protection | Overcurrent protection |
| Indicator | Display LED | 4: RUN (Run)/STS (Status)/NSA (Network status A)/NSB (Network status B) |
| | Channel status LED | 16: Each I/O channels status |
| Isolation | | Digital isolation (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) 10 to 95% RH or less (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 | | Less than 251 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 |

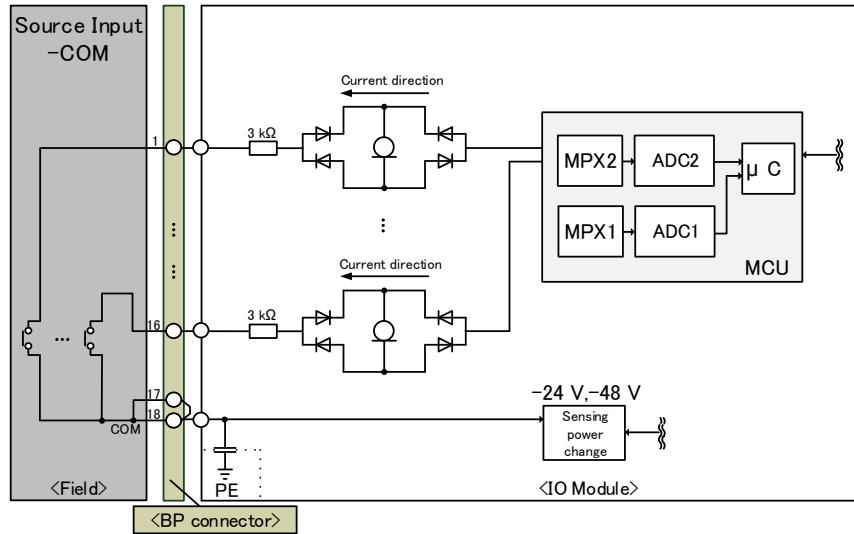
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■ Block diagram



| | |
|------|--------------------------------------|
| P/S | : Power supply |
| MPX | : Multiplexer |
| ADC | : Analog digital converter |
| μ C | : Micro controller |
| CLK | : Clock |
| FPGA | : Field programmable gate array |
| LED | : Light emitting diode |
| MCU | : Micro control unit |
| GND | : Ground |
| COM | : Common |
| IOA | : I/O adapter |
| LVDS | : Low Voltage Differential Signaling |
| EMS | : Engineering Management System |
| BP | : Backplane |
| PE | : Protective Earth |
| —□— | : Resistor |
| —□— | : Fuse |
| —□— | : Diode |
| —□— | : Capacitor |
| —□— | : Switch |
| —□— | : Transformer |
| —□— | : Constant current circuit |



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