
PLC / SMART RELAY EXTENSION MODULE

General Specification:

- 14 Discrete Inputs
- 10 Discrete Outputs
- 2 x 0-10V Analog Inputs - optional
- 1 x PTC Temperature Sensor Input
- RS-485 networking port
- Scan time < 10msec.
- LED Front Panel
- 18Vdc Auxiliary Supply Out for discrete inputs
- 18...32VDC or 100...240VAC supply options



WARNINGS

- Mount the device in a ventilated place, and be sure that air inlets are not blocked. Use mounting holes to fasten or install on a rail.
- Take precautions against environmental conditions like humidity, vibration, pollution and high/low temperature during installation.
- Do not use device out of its technical specifications.
- Keep device away from circuit breaker, contactors, devices/cables emitting electrical noise, power cables.
- Keep signal and communication cables away from circuit breaker, contactors, devices/cables emitting electrical noise, power cables.
- Use shielded and twisted signal and communication cables and connect shield to ground on device side.
- Use an appropriate fuse on mains/supply input of the device. Use appropriate cables for mains connections. Apply safety regulations during installation.
- Maximum torque for screwing; 0.5 N.m
- Please read carefully user's manual of "GEMO Ladder Editor" before installation and use. Regularly check www.gemo.com.tr for latest Editor, Device and Documentation Updates.
- Use twisted pair shielded (24 AWG) cable for RS-485 connection. Line termination may be required for cable length of 10meters or above. For correct termination, refer to related application note (www.gemo.com.tr).
- Analog inputs are **not electrically isolated**. The sensors connected to the Analog inputs should be powered by regulated and double isolated external power supplies. Possible ground fault may result RS-485 communication failure.

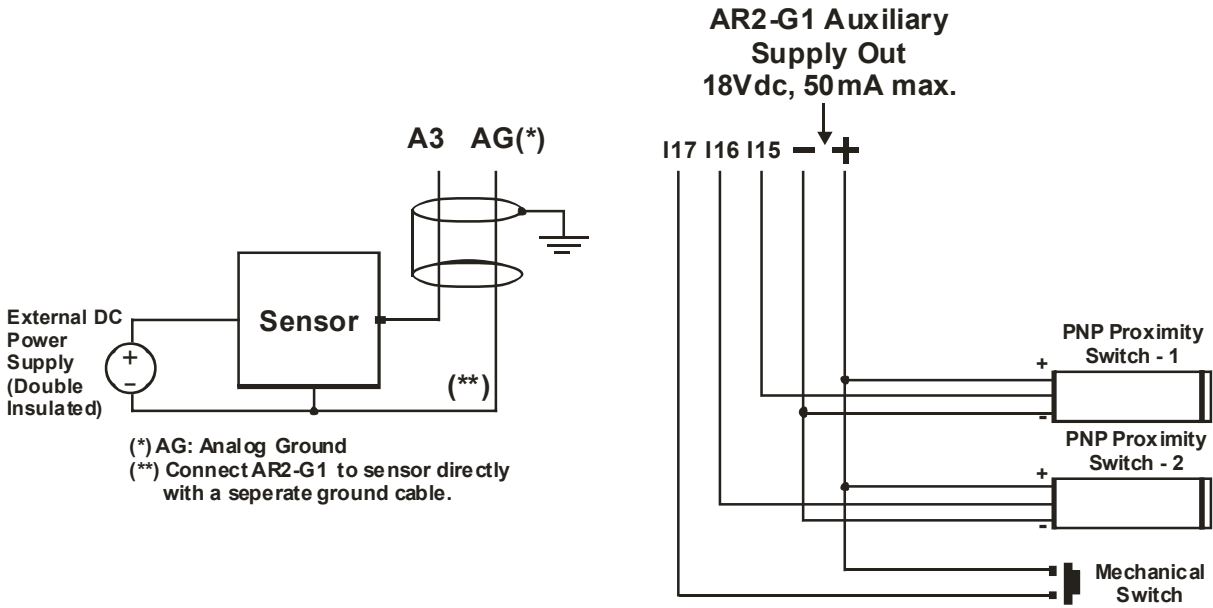
TECHNICAL SPECIFICATIONS

- **Dimensions** : 125x91x60mm (WxHxD)
- **Display** : LED Front Panel
- **Discrete Inputs** : OFF:0..2VDC; ON:10..32VDC, max.32VDC, common (-) negative connection (PNP/Totem Pole), galvanic isolation with opto-coupler.
- **Discrete Input Filter Time:** min. 8ms (ON->OFF, OFF->ON)
- **Analog Input** : 2 x 0-10Vdc, max. 16Vdc, Optional, with seperate analog ground.
- **Analog Ground** : Not isolated. Use double isolated external power supply to supply sensors. Refer to warnings and sample connection diagram.
- **A/D Resolution** : 10 bit
- **Analog Input Sampling Period:** 100ms
- **PTC Input** : Mini-DIN, 2 wire PTC (-50..150°C), ask for sensors
- **Discrete Outputs** : 10xRelay, max. 250VAC, 2A, Resistive load
- **Config. Interface** : RS-232. Data cable code; AR2-RS232-A.
- **Network Interface** : RS-485
- **RS-485 Cable** : Shilded twisted pair; 24 AWG.
- **RS-485 Cable length** : max. 200m.
- **RS-485 Termination** : Required for cable length of 10 meters and above. Refer to related application note for correct termination.
- **Scan Time** : < 10ms
- **Maximum torque for screwing:** max. 0.5 N.m
- **Operating Temperature:** 0 .. 50 °C
- **Supply Voltage** : 18..32VDC (galvonic isolation; 50VAC), or 100..240VAC, 50-60Hz, double insulated
- **Auxiliary Supply Out** : (for Discrete Inputs) 18Vdc, max. 50mA (galvonic isolation; 50VAC)
- **Power Consumption** : < 6W
- **Weight** : < 0.6 kg
- **Operating Altitude** : < 2000 m

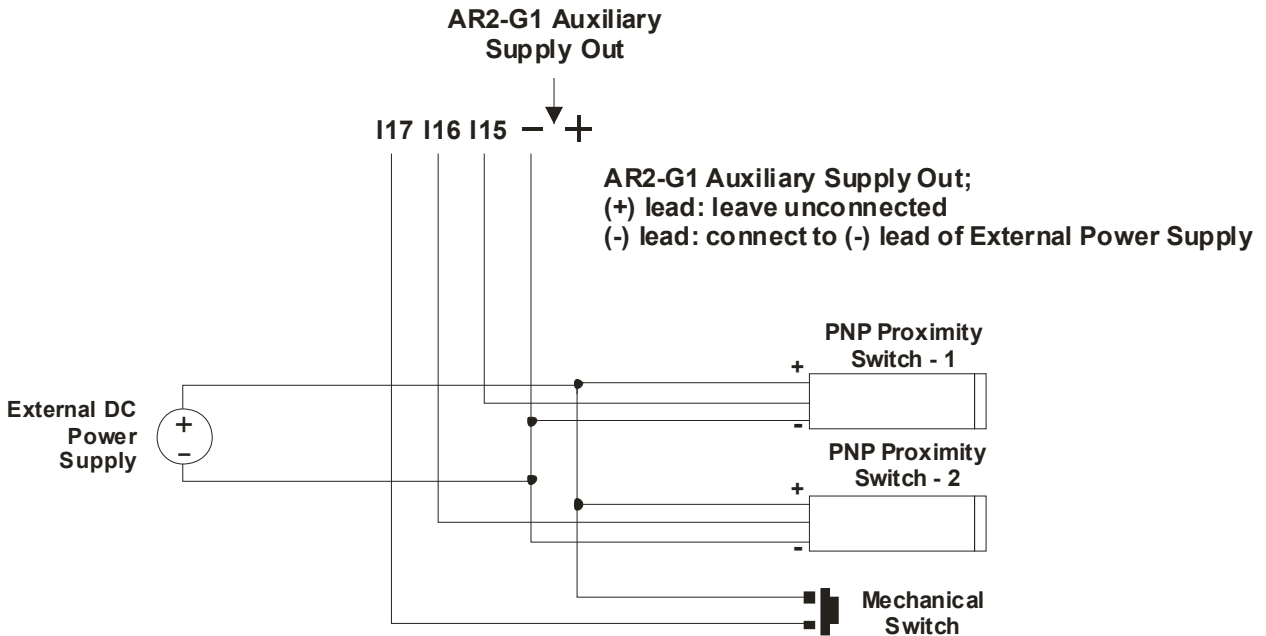
DEVICE OPTIONS

Device Code	Supply Voltage	Discrete Inputs	Analog Inputs	Discrete Outputs
AR2-G1-24VDC-14D	24Vdc	14	---	10xRelay
AR2-G1-24VDC-12D2A	24Vdc	12	2	10xRelay
AR2-G1-230VAC-14D	230Vac	14	---	10xRelay
AR2-G1-230VAC-12D2A	230Vac	12	2	10xRelay

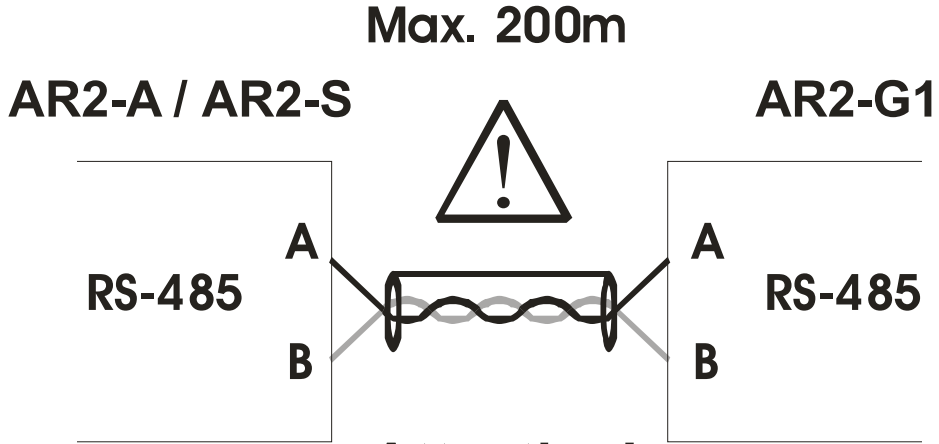
SAMPLE CONNECTION DIAGRAM



Driving Digital Inputs from an External Power Supply



RS-485 CONNECTION



**Use shielded twisted pair (24 AWG) cable
for RS-485 connection.**

Connect A \longleftrightarrow A, B \longleftrightarrow B.

**Line termination may be required
for cable length of 10 meters and above.**

**Refer to related application note for correct termination.
(www.gemo.com.tr)**