

# AMAX-2750SY Series

## 32-ch Isolated Digital Input/Output Slave Modules



### Features

- Max. 20 Mbps transfer rate
- Onboard terminal for direct wiring
- Easy installation with RJ45 phone jack and LED diagnostic
- LED indicator for each IO channel (switch by SW4)
- Selection of I/O-channel configuration (32-ch DI, 32-ch DO or 16/16-ch Digital I/O)
- 2,500 V<sub>RMS</sub> Isolation voltage
- Suitable for DIN-rail mounting

### Introduction

The AMAX-2750SY series consists of digital slave modules for AMONet RS-485 that extend the digital I/O capacity. All the digital I/O slave extension modules are connected serially with a simple Cat.5 cable. This reduces wiring between driver and controller and is very suitable for highly integrated machine automation applications. High speed, scalability and cost-effectiveness ensures a solid solution for machine builders. There are 3 main types of digital I/O slave modules, 32-ch digital input, 32-ch digital output, and 16/16-ch digital input/output. With these slave modules, you can connect actuators/sensors directly with minimum hassle. You can access I/O points nearby or 100 meters away using simple and low-cost wiring, and the high speed of AMONet RS-485 makes it possible to scan 2,048 I/O channels in 1.04 ms.

### Specifications

#### Isolated Digital Input

- **Channels** AMAX-2752SY: 32 (4 ports)  
AMAX-2756SY: 16 (2 ports)
- **Input Type** Dry contact
- **Isolation Protection** 2,500 V<sub>RMS</sub>
- **Opto-Isolator Response** 18  $\mu$ s
- **Input Resistance** 1 k $\Omega$  @ 0.5 W

#### Isolated Digital Output

- **Channels** AMAX-2754SY: 32 (4 ports)  
AMAX-2756SY: 16 (2 ports)
- **Output Type** Sink (NPN) (open collector Darlington transistors)
- **Isolation Protection** 2,500 V<sub>RMS</sub>
- **Output Voltage** 10 ~ 30 V<sub>DC</sub>
- **Sink Current** 1 ch: 500 mA (1 port)  
150 mA/ea. for multiple-channel usage, total 1.1A max.

#### General

- **Bus Type** AMONet RS-485
- **Certifications** CE
- **Connectors** 2 x RJ45 and 2 x 40-pin wiring board
- **Dimensions (L x W x H)** 125 x 47.6 x 151 mm (4.9" x 1.8" x 5.9")
- **Power Consumption** AMAX-2752SY: 1.2 W typical, 13 W max.  
AMAX-2754SY: 1.2 W typical, 5 W max.  
AMAX-2756SY: 1.2 W typical, 8 W max.
- **Power Input** 24 V<sub>DC</sub> within 200 mA ripple
- **Power Supply for DIO** 10 ~ 30 V<sub>DC</sub> (Current < 2A)
- **Humidity** 5 ~ 95% RH, non-condensing (IEC 68-2-3)
- **Operating Temperature** 0 ~ 60° C (32 ~ 140° F)

### Ordering Information

- **AMAX-2752SY** 32-ch Isolated Digital Input AMONet Module
- **AMAX-2754SY** 32-ch Isolated Digital Output AMONet Module
- **AMAX-2756SY** 16/16-ch Isolated Digital I/O AMONet Module

## Pin Assignments

### AMAX-2752SY

EXT_VCC	1	1	EXT_VCC
EXT_VCC	2	2	EXT_VCC
IDI0	3	3	IDI16
IDI1	4	4	IDI17
IDI2	5	5	IDI18
IDI3	6	6	IDI19
IDI4	7	7	IDI20
IDI5	8	8	IDI21
IDI6	9	9	IDI22
IDI7	10	10	IDI23
EXT_VCC	11	11	EXT_VCC
IDI8	12	12	IDI23
IDI9	13	13	IDI24
IDI10	14	14	IDI25
IDI11	15	15	IDI26
IDI12	16	16	IDI27
IDI13	17	17	IDI28
IDI14	18	18	IDI29
IDI15	19	19	IDI30
IGND	20	20	IGND
IGND	21	21	IGND
	CN5	CN6	

### AMAX-2764SY

EXT_VCC	1	1	EXT_VCC
DO_COM0	2	2	DO_COM2
IDO0	3	3	IDO16
IDO1	4	4	IDO17
IDO2	5	5	IDO18
IDO3	6	6	IDO19
IDO4	7	7	IDO20
IDO5	8	8	IDO21
IDO6	9	9	IDO22
IDO7	10	10	IDO23
DO_COM1	11	11	DO_COM3
IDO8	12	12	IDO24
IDO9	13	13	IDO25
IDO10	14	14	IDO26
IDO11	15	15	IDO27
IDO12	16	16	IDO28
IDO13	17	17	IDO29
IDO14	18	18	IDO30
IDO15	19	19	IDO31
IGND	20	20	IGND
IGND	21	21	IGND
	CN5	CN6	

### AMAX-2766SY

EXT_VCC	1	1	EXT_VCC
EXT_VCC	2	2	EXT_VCC
IDI0	3	3	IDI8
IDI1	4	4	IDI9
IDI2	5	5	IDI10
IDI3	6	6	IDI11
IDI4	7	7	IDI12
IDI5	8	8	IDI13
IDI6	9	9	IDI14
IDI7	10	10	IDI15
DO_COM0	11	11	DO_COM1
IDO0	12	12	IDO8
IDO1	13	13	IDO9
IDO2	14	14	IDO10
IDO3	15	15	IDO11
IDO4	16	16	IDO12
IDO5	17	17	IDO13
IDO6	18	18	IDO14
IDO7	19	19	IDO15
IGND	20	20	IGND
IGND	21	21	IGND
	CN5	CN6	

19  
Embedded Controllers

20  
PC-based Controllers

21  
PAC

22  
Motion Control

23  
RS-485 I/O

24  
Ethernet I/O

25  
Building Automation

26  
Self-service Terminals

27  
eHome Platforms