

AS-1 READER

User Manual

Rev.1.0

TAKUMA SEIKO CO., LTD

TEL +81-46-239-0755

FAX +81-46-239-0750



Contents

1	Introduction	3
2	Appearance.....	3
3	Specification.....	3
4	Part names	4
5	Interface	4
6	Operation	5
7	REGULATORY COMPLIANCE INFORMATION.....	6
8	Revision History.....	6



1 Introduction

This address sensor unit (AS-1) is an RFID low-frequency (LF) 134.2kHz reader/writer unit for address tag for AGV (Automated Guided Vehicle) system with internal loop antenna. Address tags are used by the AGV to determine its position while driving.

AS-1 has two types of the functions by factory default, AS-1 READER is an RFID reader function for use with AGV, AS-1 WRITER is an RFID writer function for writing an ID to a tag.

This user manual describes the AS1 READER unit.

2 Appearance

AS-1 READER front view



AS-1 READER back view



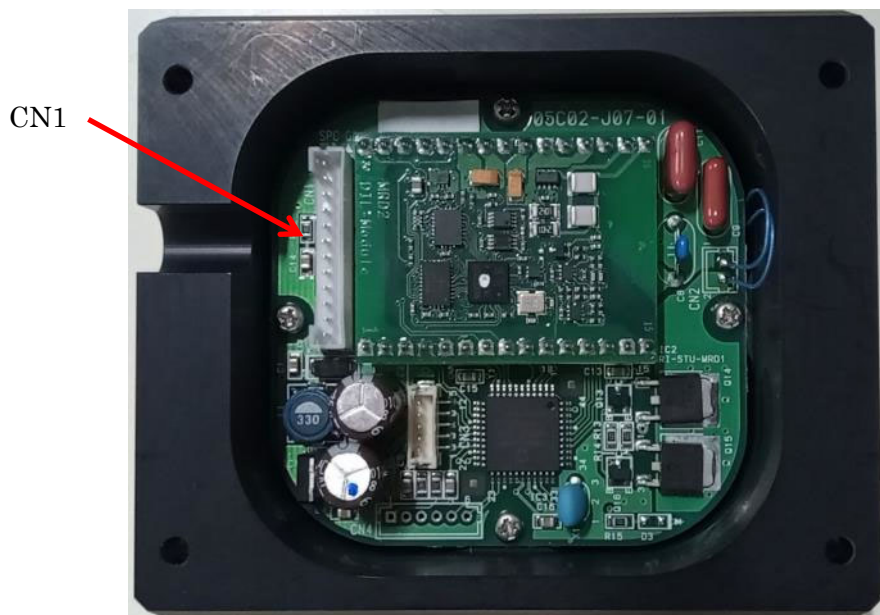
* The appearance of AS-1 WRITER is almost the same as above.

3 Specification

Compliant	: ISO 11784/11785 134.2kHz RFID
ID Tag type	: RI-TRP-WR3P-30 (23mm Glass), RI-TRP-WR2B-30 (32mm Glass)
Dimension	: 88mm (W), 73mm (D), 27mm (H)
Weight	: 100g
Voltage	: DC +12V
Current	: 0.5A



4 Part names



5 Interface

CN1 (JST B12B-PH-K-S)

Pin No.	Pin Name	Function	Description
1	GND	-	Ground
2	DC +12V	Power	
3	/Stop	I	RF output stop signal to sleep (L: Stop mode)
4	/Clock	O	Data enable signal (100msec) for Data
5	/D7	O	Data bit 7
6	/D6	O	Data bit 6
7	/D5	O	Data bit 5
8	/D4	O	Data bit 4
9	/D3	O	Data bit 3
10	/D2	O	Data bit 2
11	/D1	O	Data bit 1
12	/D0	O	Data bit 0



6 Operation

Normal operation:

- Turn on the power.
- AS-1 READER can be read ID value (D7-D0) from RFID tag with /Clock = L.
- User system will be known an ID value by /Clock = L 100msec width.

Stop mode:

- AS-1 READER can be entered stop mode (low power consumption) by /Stop = L.
- Recommendation: If the AGV is not moving, set Stop mode (/Stop = L).



7 REGULATORY COMPLIANCE INFORMATION

Product Name: Address sensor unit

Model Name: AS-1 READER

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

TOMITA U.S.A INC. (HEADQUARTERS)

7801 Corporate Blvd. Ste. G, Plain City, OH. 43064 U.S.A.

TEL : 1-614-873-6509 FAX : 1-614-873-6806

FCC CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

8 Revision History

Rev.	Description
1.00	1 st release

