ASCON D7-5055-0000

ASCON D7-5055-0000 DIN Rail RS485 Transmitter User Manual

Model: D7-5055-0000 | Brand: ASCON

1. Introduction

This manual provides essential information for the proper installation, operation, and maintenance of the ASCON D7-5055-0000 DIN Rail Mounting RS485 Transmitter. This device is designed for universal input and analogue retransmission, operating on 24VAC/DC power. Please read this manual thoroughly before using the product to ensure safe and efficient operation.

2. Safety Information

Always adhere to the following safety precautions to prevent injury or damage to the device:

- Ensure power is disconnected before installation or maintenance.
- Installation should only be performed by qualified personnel.
- Do not expose the device to excessive moisture, dust, or extreme temperatures.
- Verify correct wiring connections as per the wiring diagrams.
- Use appropriate personal protective equipment (PPE) during installation.

3. Product Features

The ASCON D7-5055-0000 transmitter offers the following key features:

- **Universal Input:** Compatible with various sensor types (e.g., thermocouples, RTDs, voltage, current).
- **RS485 Communication:** Enables digital data transmission and remote configuration.
- **Analogue Retransmission:** Provides a configurable analogue output (e.g., 4-20mA, 0-10V).
- **DIN Rail Mounting:** Easy integration into industrial control panels.
- **24VAC/DC Power Supply:** Flexible power input for industrial environments.
- **LED Indicators:** Status LEDs for power, communication, and alarm conditions.

4. Package Contents

Upon unpacking, verify that all items are present and undamaged:

- 1 x ASCON D7-5055-0000 DIN Rail RS485 Transmitter
- 1 x User Manual (this document)
- (Optional) Mounting Screws or Clips (if applicable)

If any items are missing or damaged, contact your supplier immediately.

5. Setup and Installation

5.1. Physical Installation

The D7-5055-0000 is designed for DIN rail mounting. Follow these steps:

1. Ensure the DIN rail is securely mounted within the control panel.
2. Align the transmitter's DIN rail clip with the rail.
3. Press firmly until the device clicks into place.
4. Ensure adequate ventilation around the device to prevent overheating.

5.2. Wiring Connections

Refer to the image below for terminal identification. All wiring should comply with local electrical codes and standards.

Figure 1: Front view of the ASCON D7-5055-0000 transmitter. The image displays the device's front panel, featuring two sets of screw terminals (numbered 1-8 and 9-16), LED indicators (OP1, OP2, AL3, PWR, COM, ADDRESS), and the ASCON logo. The top terminals (1-8) and bottom terminals (9-16) are clearly visible, along with the D7 and RS485 symbols.

Terminal Assignments (Refer to Figure 1):

Terminal No.	Description
1-4	Universal Input (e.g., Thermocouple, RTD, Voltage, Current)
5-8	Analogue Output (e.g., 4-20mA, 0-10V)
9-12	RS485 Communication (A, B, GND)
13-16	Power Supply (24VAC/DC)

Wiring Steps:

1. Connect the universal input sensor to terminals 1-4 according to the sensor's specifications.
2. Connect the analogue output to your receiving device (PLC, DCS, etc.) using terminals 5-8.
3. Connect the RS485 communication lines to terminals 9-12, ensuring correct polarity (A, B, GND).
4. Connect the 24VAC/DC power supply to terminals 13-16. Observe polarity for DC power.
5. Double-check all connections before applying power.

6. Operating Instructions

6.1. Power On and Initial Check

Once all wiring is complete and verified:

1. Apply 24VAC/DC power to the device.
2. Observe the PWR LED indicator. It should illuminate, indicating proper power supply.
3. Check other LEDs (OP1, OP2, AL3, COM) for their status. Refer to the device's specific LED behavior for normal operation.

6.2. Configuration (via RS485)

The D7-5055-0000 is typically configured via its RS485 interface using a dedicated software tool provided by ASCON or a compatible Modbus RTU master. This allows for:

- Input type selection and range setting.
- Analogue output scaling and range.
- RS485 communication parameters (baud rate, parity, device address).
- Alarm setpoints and hysteresis.
- Calibration adjustments.

Refer to the ASCON configuration software manual for detailed instructions on parameter setup.

7. Maintenance

The ASCON D7-5055-0000 is designed for minimal maintenance. However, periodic checks are recommended:

- **Visual Inspection:** Regularly inspect the device for any signs of physical damage, loose connections, or corrosion.
- **Cleaning:** If necessary, gently clean the exterior of the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Connection Integrity:** Periodically check that all terminal connections are secure.
- **Calibration Check:** Depending on the application and required accuracy, periodic re-calibration of the input and output may be necessary. Refer to the configuration software manual for calibration procedures.

Note: *There are no user-serviceable parts inside the unit. Do not attempt to open the enclosure.*

8. Troubleshooting

This section provides guidance for common issues. For problems not listed here, contact ASCON technical support.

Problem	Possible Cause	Solution
No Power (PWR LED off)	No power supply; incorrect voltage; faulty wiring.	Check power source, verify voltage (24VAC/DC), inspect wiring connections.
Incorrect Analogue Output	Incorrect input scaling; faulty sensor; wiring error; output load issue.	Verify input configuration in software; check sensor functionality; inspect output wiring; ensure load impedance is within specifications.
RS485 Communication Failure	Incorrect baud rate/parity; wrong device address; wiring polarity reversed; bus termination issues.	Check communication settings in software; verify device address; ensure A/B wiring is correct; check bus termination resistors.
Input Reading Inaccurate	Sensor issue; incorrect input type selected; calibration required.	Verify sensor operation; confirm input type and range in configuration; perform calibration if necessary.

9. Specifications

Key technical specifications for the ASCON D7-5055-0000:

Parameter	Value
Model	D7-5055-0000
Input Type	Universal (Thermocouple, RTD, Voltage, Current)
Output Type	Analogue Retransmission (e.g., 4-20mA, 0-10V configurable)
Communication	RS485 (Modbus RTU)
Power Supply	24VAC/DC
Mounting	DIN Rail
Operating Temperature	-10°C to +60°C (typical)
Dimensions	Standard DIN rail module size (refer to datasheet for exact dimensions)
Manufacturer	ASCON
Minimum Frequency	50 Hz (for AC power)

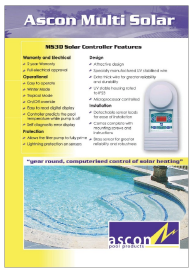
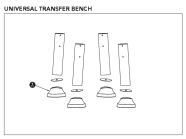
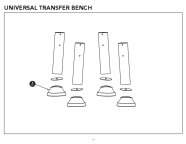
10. Warranty and Support

ASCON products are manufactured to high quality standards. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official ASCON website. Keep your purchase receipt as proof of purchase.

For technical assistance, troubleshooting beyond this manual, or spare parts inquiries, please contact ASCON technical support or your local distributor. When contacting support, please have your product model number (D7-5055-0000) and serial number (if applicable) ready.

ASCON Official Website: www.ascon.it (*Note: This is a placeholder URL, please refer to official documentation for the correct support contact information.*)

Related Documents - D7-5055-0000

	Ascon Multi Solar MS3D Controller: Efficient Pool Heating Discover the Ascon Multi Solar MS3D, a user-friendly digital differential temperature controller for efficient and trouble-free pool heating. Learn about its features, specifications, and warranty.
	Beckhoff ELM3xxx Measurement Terminals Short Documentation This short documentation provides an overview and technical data for the Beckhoff ELM3xxx series of measurement terminals, covering their features, installation, and operation within EtherCAT systems.
	Universal Transfer Bench Replacement Parts Schematic Detailed replacement parts schematic and product information for the Universal Transfer Bench and related bath benches from Carex Health Brands.
	Universal Transfer Bench Replacement Parts and Specifications Detailed information on replacement parts and item numbers for the Universal Transfer Bench, Universal Bath Bench WO Back, and Universal Bath Bench W Back, including part number FGB656L4 0000 for tips.
	Profoto Batteries and Chargers Quick Start and Safety Guide This guide provides essential safety information and quick start instructions for Profoto batteries and chargers, including handling, charging, and disposal guidelines.

[AMBIENCE Low Air Loss Mattress Replacement System Service Manual]

Comprehensive service manual for the AMBIENCE Low Air Loss Mattress Replacement System by Park House Healthcare, detailing product illustrations, service instructions, exploded diagrams, parts lists (BOM), troubleshooting procedures, and recommended tools.

Documents - ASCON – D7-5055-0000

Ascon

Ascon produits

Produit	Description
XE-301	Contrôleur numérique de la série XE (non configuré)
AC 30 01100 00000	AC 30 Multifunction Programmable controller
AC-20/30/0100 (obsolete)	thermorégulateur
AC 20 3001 0011	Programmable Controller – Multi Function
AC-20-300100	AC20 controller
AC20/3021000/0000	Contrôleur programmable multifonction AC30
AC30/300/00	MULTIFUNCTION TEMPERATURE CONTROLLER ; ; POWER SUPPLY 100-240VAC *
APALL series	convertisseur d'interface configurable
C1-3007-0200/9999	Controller Ascon front panel mount 1/32 DIN
CD3010045480SSR	Tipo:c CD3000S-1PH 45A 480V RSS circuit Emphaseinstaller, le commutateur de passage à zéro 45A courant de charge (45A @ 40C 36A @ 50C) Tension de charge à 480V La logique de commande (OFF <1.0 Vcc, ON 4 ... Type de puissance 30 Vcc) 12mA Dimensions de 52x120x120mm (W) idéal pour le contrôle de chauffage avec une charge résistive (passage par zéro) connectée en antiparallèle thyristor Marquage CE économiser de l'espace par integr.Kuehlkoerper Rc-élément et variistance intégré affichage de l'état de la LED Montage sur rail DIN ou fixation à vis Tarif Num.8536.2010 ...
CS-DITW.SCLA.380/120V (N10-5V; MATR:91181399	THYRISTORS GROUP
DY-0024	(Backlight+Lamp)
LAMP FILAMENT FOR AC-20 (OBSOLETE)	LAMP FILAMENT FOR ASCON CONTROLLER (AC-20)
M1-3000-0200	Température régler
M3-3100-0200 (M3-3100-0200/9999)	régulateur de température
M3-3100-2200/9999	Contrôleur de température
M3-3100-0000	Temperaturregler Serie M3 (unkonfiguriert)
M3-3100-1000	Temperaturregler Serie M3 (unkonfiguriert)
M3-3100-0200/9999	Temperaturregler Serie M3

Ascon Page 1 / 12

[pdf]

Ascon FABRIMAT FRANCE fabrimat sarl fr TLK33 Contrôleur ALS 3 232 convertisseur d interface configurable type TLZ35 HRR MICROPROCESSEUR *SCXE301 9 régulateur thermique M5 3152 0000 document |||

Fabrimat 2 Rue Charles Cros, Saint-Leu-La-Fort 95320, France / VAT ID: FR89878958768 sales fabrimat. ... -0200 C1-5007-0200/9999 C1-5007-0200/9999 Typ: IO-CB/DO-16TS X1-5150-0200 D8-5150-0000 x1-5150-0000 **D7-5055-0000** TLK43LVR---TLK43HVR--I- XE-300 M3-3100-0200/3010 RP5A30P00B0100S0025P K35PROH001--0AT A...

lang:fr score:22 filesize: 367.88 K page_count: 12 document date: 2025-07-26