PRODUCT INFORMATION

TRAFFIC MANAGEMENT ACCESSORY

SDLC MODULE

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CONTENT

1 USER SAFETY WARNING

Please read the entire document carefully before using the device.

INSTALLATION

Please pay attention to the details below before installing and connecting the device:

- Only use provided or approved equipment for the operation.
- Only skilled and instructed persons shall install and connect the device.
- All connectors are pin-coded and fit in only one position.
- Be cautious when using the device on or around active roadways and pay attention to moving traffic.
- Make sure that test procedures are in accordance with local safety policies and procedures as well as company practices.

OPERATION

Using an SDLC Module does not influence the sensor performance.

Please note that the device is not waterproof. Take care of proper rain coverage when working outside. Do not operate the device if the device itself or any cables are damaged.

Do not dispose electrical and electronic equipment in household trash.

TECHNICAL SERVICE

Only use provided or approved equipment for operation.

Do not attempt to service or repair this device:

- No user-maintainable parts are contained in the device.
- To avoid electrical shock, do not remove or open the cover.
- Unauthorized opening will void all warranties.
- smartmicro is not liable for any damages or harms caused by unauthorized attempts to open or repair the device.

2 PRODUCT SPECIFICATION

The smartmicro SDLC Module collects 64 outputs generated by all connected sensors and transfers them to the controller via SDLC protocol.

2.1 FEATURES AND APPLICATIONS

The SDLC Module has he following features:

- Support of both TS/2(BIU) and ATC (SIU) emulation
- Emulation of 1,2,3 or 4 BIU addresses, 16 inputs/addresses
- Emulation of 1 SIU address, 54 inputs and additional 4 pedestrian inputs
- LEDs for up to 24 channels per BIU/SIU
- LEDs for communication activities
- Housing with holder for DIN rail
- Ethernet sensor communication
- Configuration via Traffic Web UI over Ethernet

2.2 SDLC MODULE SPECIFICATIONS

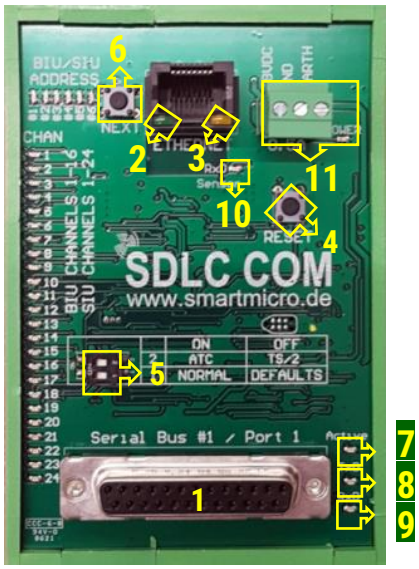
Operating temperature	-34…+74°C | -29…+165°F
Vibration	0.015 in DA (Nema TS2-Standards)
Shock	10 g (Nema TS2-Standards)
Power consumption at 25°C | 77°F	1.2 Watt
Operating voltage	10…48 V

Table 1: SDLC specifications

2.3 BOARD DESCRIPTION AND GENERAL FUNCTIONS

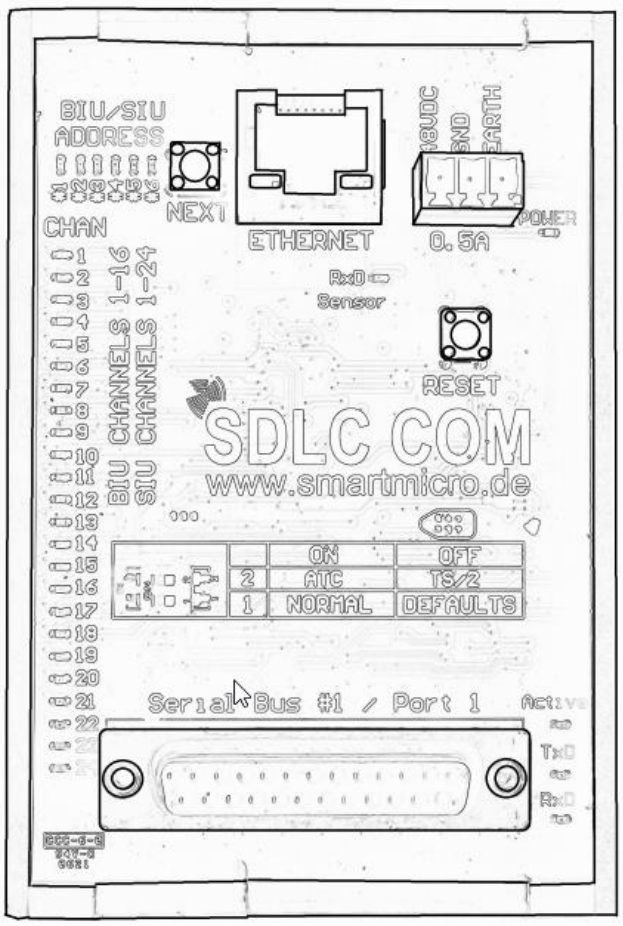
Serial Bus port – TS/2, ATC, please see

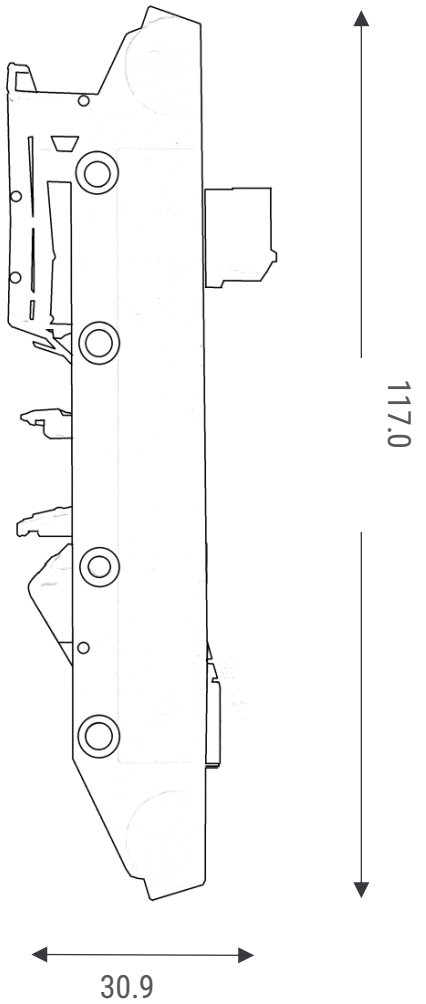
1. Table 2 : Pinout of the DB25 port 1
2. Green Ethernet LED – The Link LED lights up when the device is connected to Ethernet.
3. Yellow Ethernet LED – The data LED lights up when the device is communicating over Ethernet.
4. Reset button – To reset, hold reset for 2 seconds until all LEDs light up.
5. TS/2-ATC DIP switch – After changing DIP switch reset or power cycle for change.
6. Next button – Press Next to display the next input status/address.
7. ACTIVE LED – It is controlled by output 54 for ATC only. In other cases, it is not used. It will switch off after 2 seconds of non-communications.
8. TxD – TxD flashes when the SDLC Module responds to a frame.
9. RxD – RxD flashes when a valid SDLC frame is received at the configured address or at the broadcast address. The typical time of broadcast is once per second.
10. RxD Sensor – RxD Sensor flashes only when an HTTP GET command is sent to set the inputs.
11. Power 10-48V (DC) with Power LED.
12. Default IP address is 10.0.0.215.

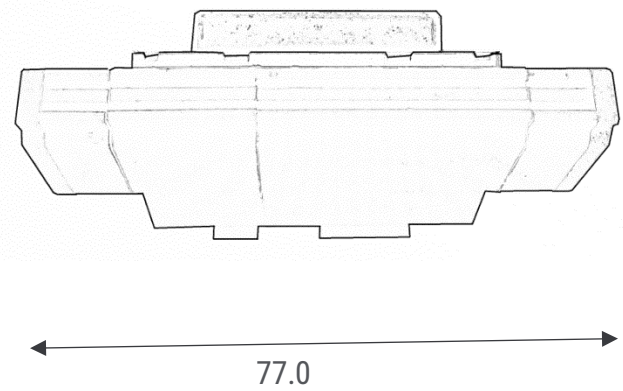


2.4 DIMENSION

All values are given in mm.







2.5 SDLC PORT AND CONNECTORS

SDLC Module Signals DB25	DIR	SDLC Module DB25 SB#1/Port 1 ATC/TS2	TS/2 DB15 Port 1	2070 TEES TS/2 DB25 SP3
RxD+	IN	1	1	5
RxC+	IN	3	3	7
TxD+	OUT	2	5	6
TxC+	OUT	4	7	8
RxD-	IN	14	9	18
RxC-	IN	16	11	20
TxD-	OUT	15	13	19
TxC-	OUT	17	15	21

Table 2 : Pinout of the DB25 port 1

2.6 TYPICAL MULTI-SENSOR CONNECTION WITH COM HUB SYNC PLC

The following figure shows how an SDLC Module can be connected to a COM HUB Sync PLC. The SDLC Module must be connected to ETH2. The cable between SDLC Module and COM HUB Sync PLC is a standard ethernet cable.

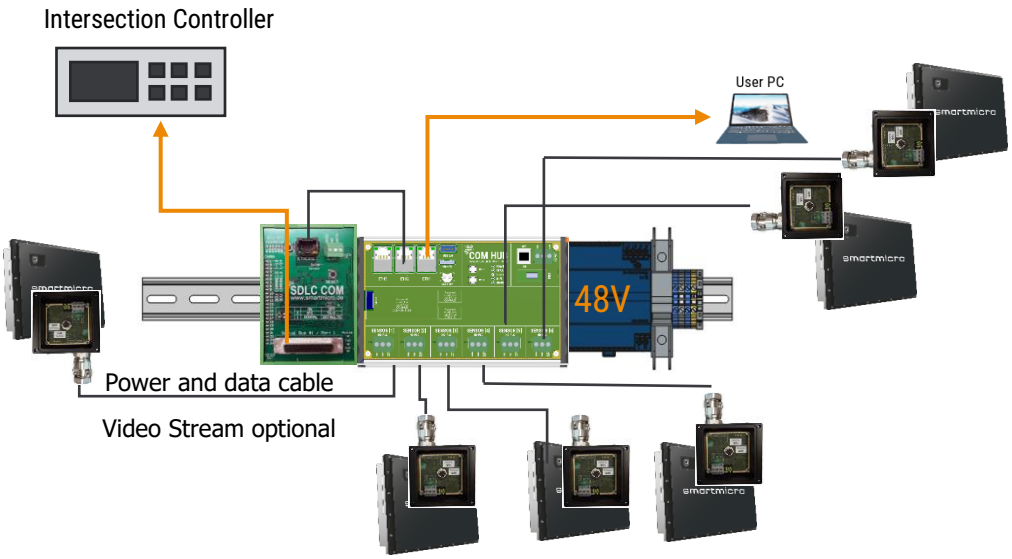


Figure 2-1 Connecting six smartmicro sensors to a controller through the COM HUB Sync PLC and SDLC Module

2.7 TYPICAL MULTI-SENSOR CONNECTION WITH TMIB2

The following figure shows how an SDLC Module can be connected to a TMIBv2. The connection between sensors and TMIB2 is RS485

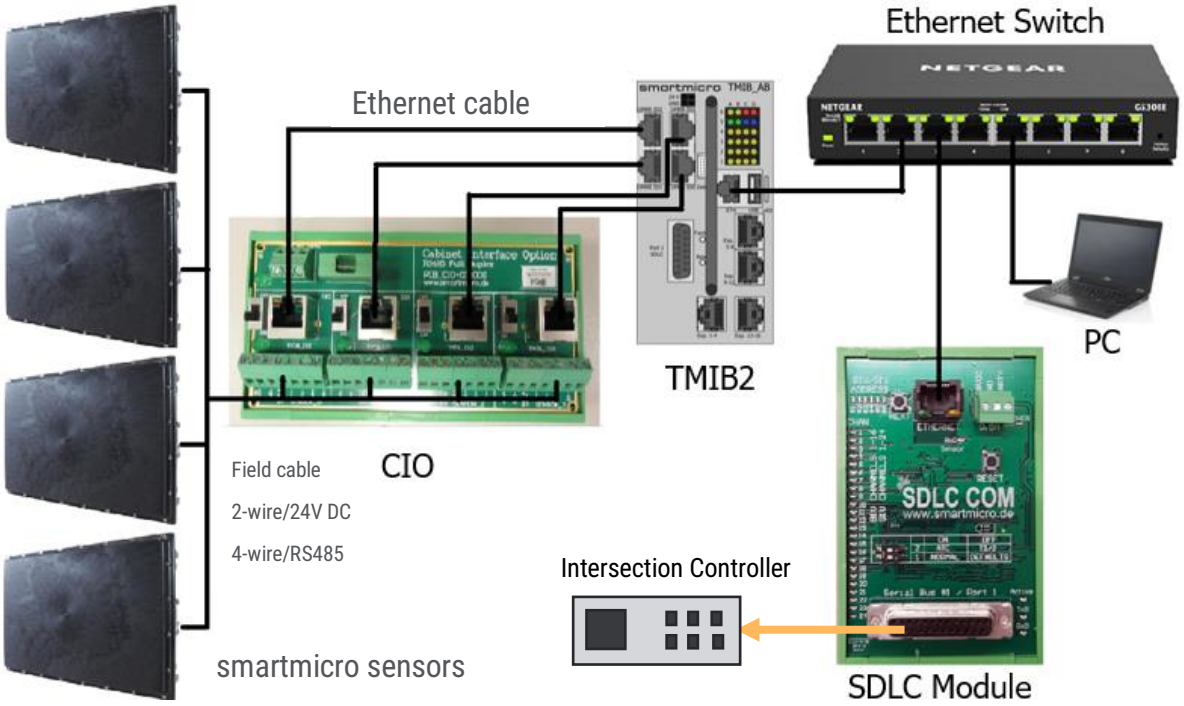


Figure 2-2 Connection with four sensors and TMIB2

3 COMPLIANCES

With regard to operating conditions like temperature, vibration etc., the SDLC module was tested and certified by independent test labs to comply with:

- NEMA TS-2-2021

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