

Datasheet

ADA-4044H

HUB RS-485 / RS-422



APPLICATION

ADA-4044H HUB is used for creation star-branches from the main bus and also separation and extending of RS485/RS422 bus for next segment 1200m without interfering with the format of transmitted data. The HUB has one input RS485 port (RS485-IN) for connection of main bus and 4 separated output ports for connection of 2-wire bus or 2 ports for connection of 4-wire of RS485/422 bus. To each output port can be connected a RS485 bus branch, having up to 32 devices. The setting of a port type is made, by the use of a RS-485 PORTS microswitch, located on the front panel. HUB ADA-4044H can be used for communication in star-topology with devices in different location and distance, where RS485 chain-topology is difficult or impossible.

To RS-485-OUT ports can be connected up to 64 devices in case of 4-wire RS485 bus, 128 devices in case of 2-wire RS485 bus and 2 addressable devices RS422.

ADA-4044H baud rate is up to 230,4 kbps via 4 or 2 pairs or twisted pair connected to screw terminal block. To 2-wire RS485 bus can be connected devices operate in half duplex mode and to 4-wire operate in half duplex & full duplex mode. It can be PLC, measuring devices, electronic scale and cash registers with RS485 or RS422 interfaces.

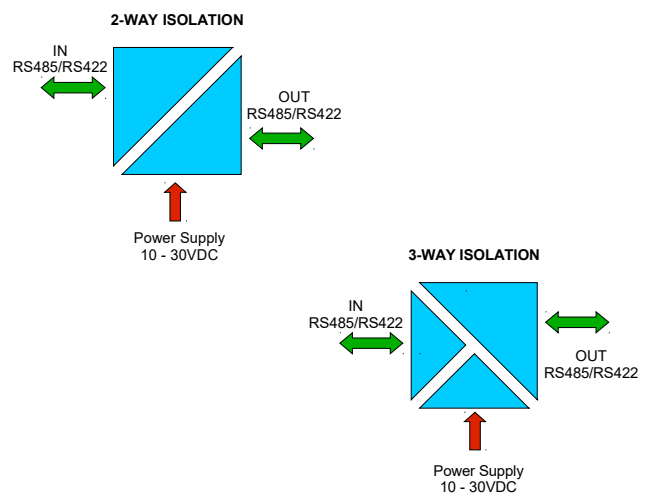
A surge protection on each RS485/RS422 line was made on the basis of surge diodes and fuses.

TECHNICAL DATA

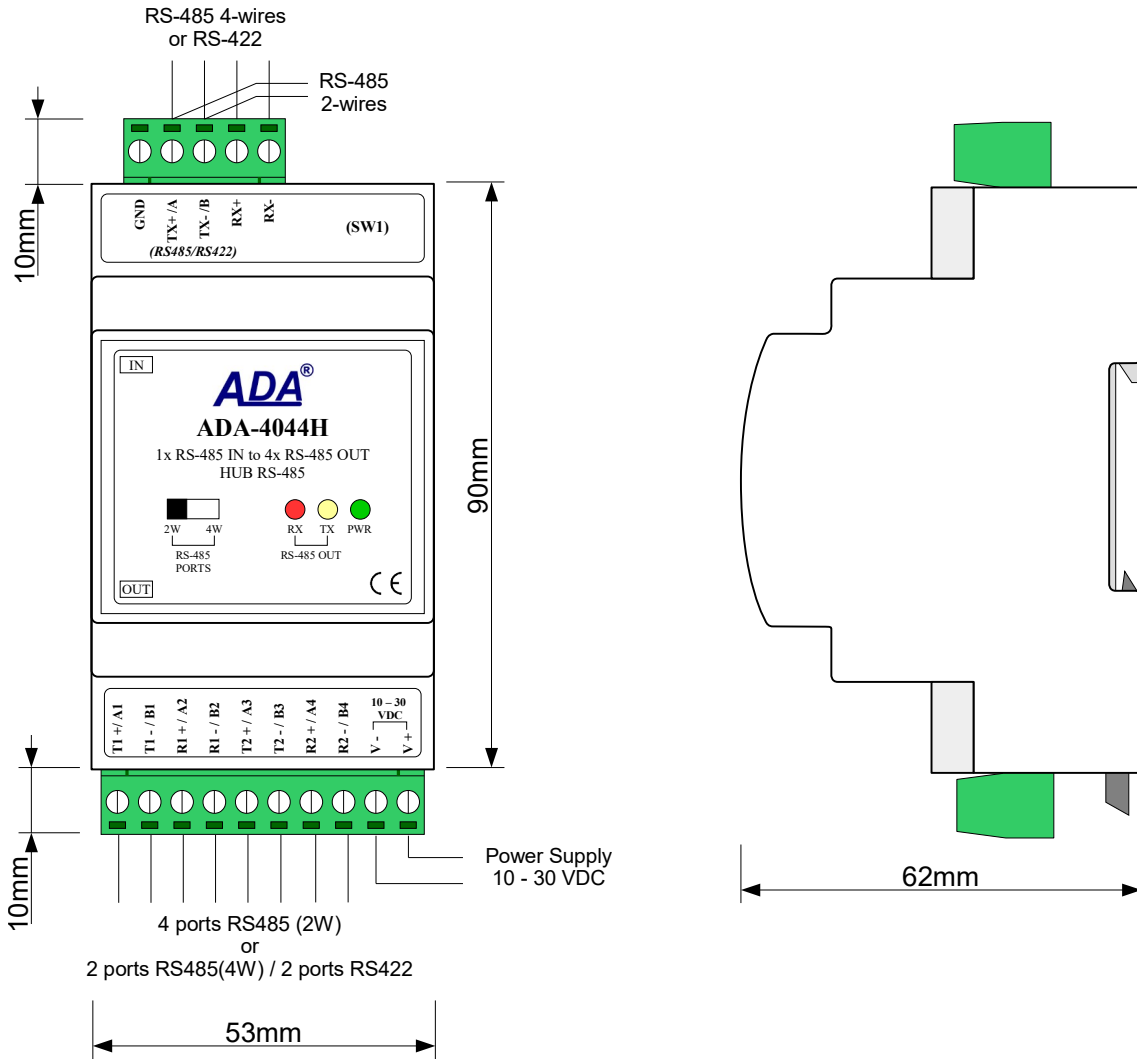
Transmission Parameters		
Interface	RS-485/422 (1xRS485-IN)	RS-485/422 (4xRS485-OUT)
Connector	Screw terminal, wire max. Ø 2,5mm ² .	
Max. Line length	up to 1200 m	
Max. number of connected device	Up to 32 devices – 2-wire- & 4-wire RS485 bus	Up to 64 devices – 4-wire RS485 bus, Up to 128 devices – 2-wire RS485 bus,

Max. baud rate	230,4 kbps
Transmission line	1-pair or 2-pair twisted cable, UTP Nx2x0,5 (24AWG), shield in environment of large interference STP Nx2x0,5 (24AWG)
Standards	EIA-485, CCITT V.11
Transmission type	Asynchronous half duplex or full duplex
Optical Signalization	<ul style="list-style-type: none"> • PWD – green LED power supply, • RX - red LED data receiving on RS485-OUT - RS485/422, • TX - yellow LED data transmission via RS485-OUT - RS485/422.
Electrical Parameters	
Power requirements	10 - 24 – 30 V DC
Power Cable	Recommended length of power cable – do 3m
Power	<2W
Protection from reverse power polarization	YES
Galvanic Isolation	<ul style="list-style-type: none"> • 2-way 1kV DC or 3kV DC between power circuit and signal line RS485/422 (RS485-IN) • 3-way 1kV DC or 3kV DC between power circuit and signal lines RS485/422 (RS485-IN and RS485-OUT)
Optoisolation	3kV= between signal line RS485/422 (RS485-IN) and RS485/422 (RS485-OUT)
Electromagnetic compatibility	Resistance to disruptions according to the standard PN-EN 55024. Emission of disruptions according to the standard PN-EN 55022.
Safety requiring	According to the PN-EN60950 norm.
Environment	Commercial and light industrial.
Environmental Parameters	
Operating temperature	-30 + 60°C
Humidity	5 + 95% - non-condensing
Storage temperature	-40 + 70°C
Casing	
Dimensions (W x D x H)	53mm x 90mm x 62 mm
Material	PC/ABS
Degree of casing protection	IP40
Degree of terminal protection	IP20
Weight	0,10 kg
According to standards	DIN EN50022, DIN EN43880
Location during work	Free
Mounting method	On the rail compliant with DIN35 / TS35 standard.

GALVANIC ISOLATION



DIMENSIONS AND CONNECTION



VERSIONS

ADA-4044H -	-	-	-
Electronic versions:			
Basic,		1	
Special,		2	
Galvanic isolation:			
1kV= - 2-way		2	
1kV= - 3-way		23	
3kV= - 2-way		3	
3kV= - 3-way		33	
Terminal & Terminal Cover:			
Cover without inlets, screw terminal block		1	
Cover with inlets, screw terminal block		2	
Cover without inlets, plug-in screw terminal block		3	

Order example:
 Product Symbol: **ADA-4044H-1-23-3**
 1 – basic version of electronic,
 23 – 1kV= galvanic isolation 3-way,
 3 – cover without inlets, plug-in screw terminal block.