

Serial data converters

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Serial data converters

Benefits and advantages

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ILPH RS 232 - 485 / Ethernet

- Electrical isolation between power supply and input/output
- RS232 on SUBD 9 points or screw connectors
- RS485 on removable screw connectors
- Ethernet 10/100 Mbit/s, RJ45 connector
- Power supply 10-34 VDC and 10-24 VAC
- Possible to have a redundant 10-34 VDC power supply
- Economic with low consumption
- Up to 100m with CAT5 cable without Hub or Switch
- Good EMC characteristics
- Up to 2 Modbus@TCP Masters

Available modes:

- Modbus@TCP to Modbus@ RTU
- Transparent Client or Server mode
- SMTP mode (Mail mode)

Standards: TPC/IP, TELNET, DHCP, FTP

- Specifics functions in Modbus@ protocol:
- Concentrator (Asynchronous mode) up to 1200 words
- AC31 programming
Modbus@ Easy Net mode : this mode could be used to exchange data without a Modbus@/TCP master. The data are logged in a table and could be distributed to one or all the others e-ILPH participants on Ethernet.

ILPH RS 232 / RS 422 - 485

- Electrical isolation between power supply and input/output
- RS 485 switch on 2 or 4 wires
- Baudrate up to 38.4 kbit/s
- Transmission distance up to 1200 m
- RS 485 1 or 2 pair handling
- Usable in "noisy" environments
- 24...48 V DC and 115...230 V AC power supply
- CE marked

ILPH RS 422 - 485 / RS 422 - 485

Electrical isolated connection between an RS 422-485 (1 or 2 pairs) and an RS 422 485 (1 or 2 pairs) serial link. It amplifies the signal beyond the 1200 m limit distance of the RS 422-485 and only needs a minimum of 1.5 character delay time to switch off the RS 485 drivers.

- Electrical isolation between power supply/output and input/output
- Baudrate up to 500 kbit/s (up to 200 m)
- Transmission distance up to 1200m at 38.4 kbit/s
- Usable in "noisy" environments
- 2/4 wires automatic handling
- 24 V DC power supply
- CE marked

ILPH RS 232 / RS 422 - 485

RS 232 to RS 422-485 serial link with or without electrical isolation

- Baudrate up to 38.4 kbit/s
- Transmission distance up to 1200 m
- RS 485 1 or 2 pair handling
- Usable in "noisy" environments
- 24 V DC power supply
- CE marked

ILPH RS 485 / FO

Converter for RS 485 (1 pair) to optical fiber serial link glass (S) or plastic (P).

- Electrical isolation between power supply and input/output
- Baud rate up to 1.5 Mbit/s
- Available for glass fiber or plastic fiber
- Transmission distance up to 4 km
- Usable in "very noisy" environments
- 20...42 V AC/DC and 110...240 V AC/DC power supply
- CE marked

ILPH RS 232 / CL

Electrical isolated Converter for RS 232 to current loop serial link.

- Electrical isolation between power supply/current loop and RS 232/ current loop
- Active/Passive 0...20 mA / 4...20 mA selectable
Positive or negative logic selectable
- Baudrate up to 38.4 kbit/s
- Transmission distance up to 1200 m
- Usable in "noisy" environments
- 24 V DC power supply
- CE marked

ILPH RS 232 / RS 232

3 way electrical isolator between RS 232 serial interface and another RS 232 serial interface.

- Ensures triple insulation between the 2 serial interfaces and between each and power supply
- Baudrate up to 19.2 kbit/s (up to 64 kbit/s depending on cable)
- Transmission distance up to 15 m
- Can be used in "noisy" environments
- Power supply from 24...48 V DC and 115...230 V AC CE marking

ILPH RS 232 / FO

Converter for RS 232 to fiber optical serial link glass (S) or plastic (P).

- Electrical isolation between power supply and input/output
- Baud rate up to 115.2 kbit/s
- Available for glass or plastic fiber
- Transmission distance up to 4 km
- Usable in "very noisy" environments
- 20...42 V AC/DC and 110...240 V AC/DC power supply
- CE marked

ILPH CL / RS 422 - 485

Electrical isolated converter for current loop to RS 422-485 (1 or 2 pairs) serial link.

- Electrical isolation between power supply/current loop and RS 422-485/ current loop
- Active/passive 0...20 mA / 4...20 mA selectable
Positive or negative logic selectable
- Baudrate up to 38.4 kbit/s (up to 2400 m)
Transmission distance up to 2400 m (1200 m RS 485 and 1200 m current loop)
- Usable in "noisy" environments
- 24 V DC power supply
- CE marked

Serial data converters

Selection table

	RS232	RS422 / RS485	CL	OF-S	OF-P	Ethernet	24 V DC	24-48 V DC	110-240 V AC	24-42 V AC/DC	10-34 VDC; 10-24 VAC	Insulation *	Part numbers
RS232	■							■				In-Ps-Out	1SNA 684 234 R2000
	■								■			In-Ps-Out	1SNA 684 244 R0200
		■					■					Wi	1SNA 684 231 R2500
		■					■					In-Out	1SNA 684 233 R2700
		■						■				In-Ps-Out	1SNA 684 333 R2300
		■							■			In-Ps-Out	1SNA 684 334 R2400
			■				■					In-Out	1SNA 684 202 R0100
				■						■		In-Ps-Out	1SNA 684 236 R2200
				■					■			In-Ps-Out	1SNA 684 237 R2300
					■				■			In-Ps-Out	1SNA 684 238 R0400
					■				■			In-Ps-Out	1SNA 684 239 R0500
RS422 /RS485		■					■					In-Out	1SNA 684 212 R2200
			■				■					In-Out	1SNA 684 232 R2600
RS485				■					■			In-Ps-Out	1SNA 684 246 R0400
				■					■			In-Ps-Out	1SNA 684 247 R0500
					■				■			In-Ps-Out	1SNA 684 248 R1600
					■				■			In-Ps-Out	1SNA 684 249 R1700
RS232 / RS485					■					■	In-Ps-Out	1SNA 684 252 R0200	

* In=Input, Ps=Power supply, Out=Output, Wi=Without insulation

- RS 232 - EIA-232 / V.24 / V.28**
 Point-to-point connection
 Max. 15 m transmission distance
 Rate up to 19.2 kbit/s
 Full-duplex
- RS 422 - EIA-422 / V.11**
 Point-to-point connection
 (1 Transmitter - 10 Receivers)
 Differential voltage transmission
 Full-duplex
 Up to 1200 m/ 10Mbit/s
 Good EMC characteristics
- Current loop(TTY)**
 Point-to-point / multi-point connection
 Active or passive current loop
 Full-duplex
 Up to 1200 m/19.2 kBit/s
 Good EMC characteristics
- RS 485 - ISO/IEC/EIA-485**
 Multi-point connection up to 32 units
 Differential voltage transmission
 Half-duplex on 1 pair
 Full-duplex on 2 pairs
 Up to 1200 m / 10Mbit/s
 Good EMC characteristics
- Optical fiber interface**
 Point-to-point connection
 Full-duplex
 From 40m up to 4km transmission distance
 according to optical fiber material (plastic / glass)
 and wavelength used up to 10 Mbit/s
 Excellent EMC characteristics
- Ethernet Interface**
 Point to point connexion or multipoint connection.
 Up to 100m using CAT5 cable without Hub or Switch
 10/100 Mbit/s
 Good EMC characteristics

Serial data converters

Ordering details



2CDC 281 003 R0013

4 ILPH RS 232-RS 485 / Ethernet



2CDC 281 001 S0013

ILPH RS 232 / RS 422-485

Ordering details

Description	Type	Order code	Price	Weight (1 pce) kg (lb)
Serial data converter e-ILPH	ILPH RS 232-RS 485 / Ethernet	1SNA684252R0200		0.12 (0.265)
Serial link interface without electrical isolation	ILPH RS 232 / RS 422-485	1SNA684231R2500		0.1 (0.220)
Serial link interface with electrical isolation	ILPH RS 232 / RS 422-485	1SNA684233R2700		0.1 (0.220)
Serial link interface 3 way electrical isolation	ILPH RS 232 / RS 422-485 (24-48 V DC power supply)	1SNA684333R2300		0.1 (0.220)
	ILPH RS 232 / RS 422-485 (115-230 V DC power supply)	1SNA684334R2400		
Serial link interface 3 way electrical isolation	ILPH RS 232 / RS 232 (24-48 V DC power supply)	1SNA684234R2000		0.1 (0.220)
	ILPH RS 232 / RS 232 (115-230 V DC power supply)	1SNA684234R0200		
Serial link interface with electrical isolation	ILPH RS 422 - 485 / RS 422 - 485 (24 V DC power supply)	1SNA684212R2200		0.1 (0.220)
Serial link interface 3 way electrical isolation	ILPH RS 232 / FO-S (24...42 V AC/DC power supply)	1SNA684236R2200		0.15 (0.331)
	ILPH RS 232 / FO-S (110...240 V AC/DC power supply)	1SNA684237R2300		
	ILPH RS 232 / FO-P (24...42 V AC/DC power supply)	1SNA684238R0400		
	ILPH RS 232 / FO-P (110...240 V AC/DC power supply)	1SNA684239R0500		
Serial link interface 3 way electrical isolation	ILPH RS 485 / FO-S (24...42 V AC/DC power supply)	1SNA684246R0400		0.15 (0.331)
	ILPH RS 485 / FO-S (110...240 V AC/DC power supply)	1SNA684247R0500		
	ILPH RS 485 / FO-P (24...42 V AC/DC power supply)	1SNA684248R1600		
	ILPH RS 485 / FO-P (110...240 V AC/DC power supply)	1SNA684249R1700		
Serial link interface with electrical isolation	ILPH BdC /RS 422 - 485 (24 V DC power supply)	1SNA684232R2600		0.1 (0.220)
Serial link interface with electrical isolation	ILPH RS 232 (24 V DC power supply)	1SNA684202R0100		0.1 (0.220)