



World of Automation

Chapter 7: SLS-86 Series

HIQUEL[®]
HIGH QUALITY ELECTRONICS

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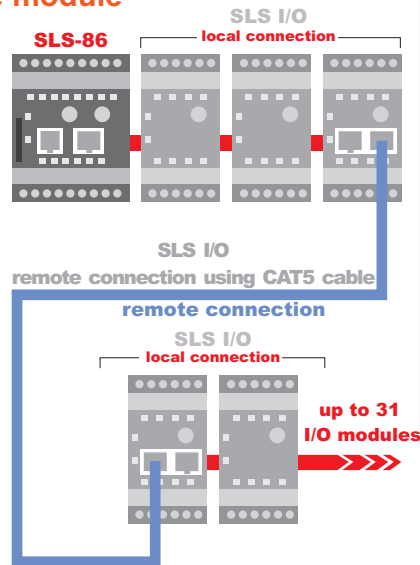
SLS-86 Series

Bit processing

The PLC-series SLS-86 is a central and/or distributed PLC system with a modular concept. HI-86 is the compact control of the SLS-86 series.

The base module allows easy and cost-effective communication with up to 31 different expansion modules over a bus length of up to 600m. The modules can be connected either locally by recessed side connectors for side by side DIN rail mounting or remotely via CAT5 cable.

SLS-86 base module



SLS-86 expansion modules

Connection: local and remote versions of all modules available

- digital input modules 24Vdc or 100-240Vac
- digital output modules, relays, transistor or photomos
- analogue I/O modules 0-10V or 0-20mA
- temperature detection modules for PTC, Pt100- and PT1000 sensors
- 16bit analogue input modules; 0-10V or 0-20mA
- room temperature detection modules with 4 inputs
- room temperature controller

Programming without special software knowledge, suitable for small (8/6 I/O) and medium sized (up to 250 I/O) applications.

The **SOLUTION SLS86** is a modular programmable (intelligent) relay that can be used in many fields including **industrial control, automation, and building management.**

The **base module SLS 86** has 8 digital inputs (4 dual digital or analogue), and 6 relay outputs.

The user program memory is 8kB with 64kB internal flash and a SIM-card for program copy and module to module data transfer.

A range of **extension modules** (digital, analogue, PTC, PT100, PT1000, FBR) is available. Output types are relay, photomos (solid state) or transistor.

The base module can communicate with up to 31 extension modules via recessed side connectors for side by side DIN rail mounting (**local**) or via CAT5 cable (**remote**). Up to 250 I/O can be distributed over a maximum distance of 600m.

Analogue values can be set by potentiometers located on the front plate or by PC. Communication with HIQUEL TERM4 is possible using the host switches and host relay functions.

The **HI-86** is a compact programmable (intelligent) relay that can be used in many fields.

The **minimodule HI-86** has 8 digital inputs (20-250Vac/dc) and 6 relay outputs (5Amp). The user program memory is 8kB. The RS 232 interface can be used for programming and monitoring. The HI-86 also features a SIM-card for easy program copy and module to module data transfer.

Applications:

- industrial automation
- process control
- building automation
- transport system
- machine control
- pump control
- lighting control
- heating control
- hydraulic systems
- bespoke systems



Programming



SoftWIRE and SoftwarePLUS are programs that are simple yet powerful CAD style wiring ladder diagram programs.

Series: SLS-86, HI-86

SoftwarePLUS:

Programming without special software knowledge.

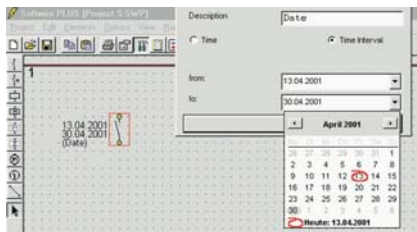
The SLS-86 base module is programmed with SoftwarePlus, using the principle of a wiring ladder diagram for programming.

Many pre-programmed software modules are included such as star-delta start, DOL (direct on line) motor start, timing functions, output functions (on/off, set/reset, bi-stable), counters (non-volatile and volatile with 8 set points each) and a universal real time clock with calendar. The **Real Time Clock** can be programmed easily for point of time switching, (to perform a function at a fixed time/date) or time interval switching, (to perform a function between two times, dates, weeks, years etc). Days of the week, weeks of the year, days, months, years, date and time can be combined without problems.

SoftwarePlus features on-line monitoring and status display of all I/O's and internal program elements on the PC. It also automatically creates **complete paper documentation** (wiring diagram, program elements and cross-reference list).

All program element addresses are automatically allocated and it is simple to change the screen and printout language into English, German, Italian

RTC with calendar function:
days of the week, days of the week,
days, months, years, date, time

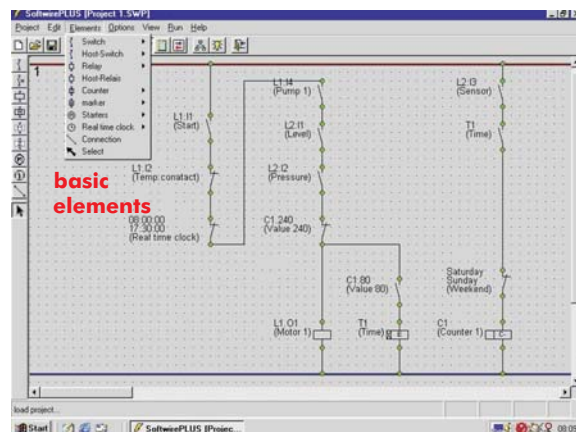


System configuration:

up to 31 I/O modules possible



Simple-to-use CAD style ladder diagram software: automatic addressing, simple editing of wiring scheme



SoftWIRE:

Programming without special software knowledge.

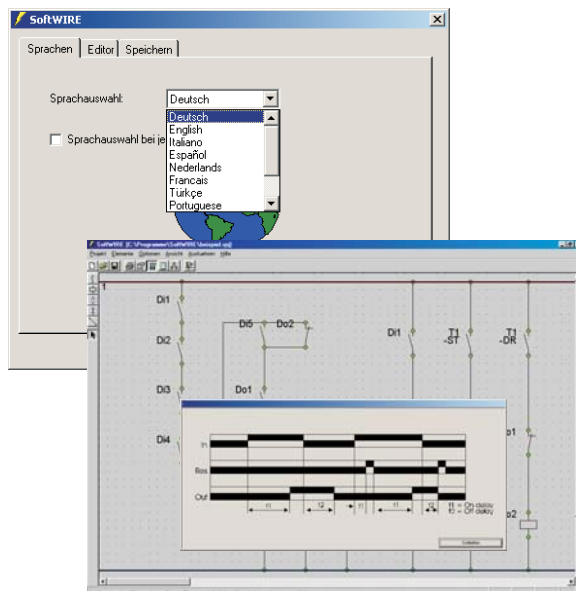
The compact module **HI-86** is programmed with SoftWIRE offering easy programming via wiring diagram.

A graphic symbol library for functions and settings are included in SoftWIRE software.

There is no limitation of program elements on a ladder rung and of the number of circuit paths.

SoftWIRE automatically generates a printable version of the project description and the module wiring diagram as well as a cross reference list.

SoftWIRE features simple language selection by





Bit processing

Programming by wiring ladder diagram, SLS-86

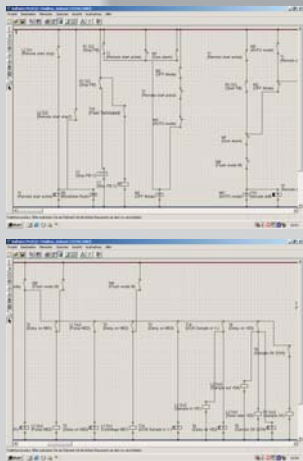
Building technology

- Easy programming by ladder diagram
- SLS-86 modules can be either locally or remotely connected via internal RS485 network in an easy and cost-effective way.
- Complete paper documentation is automatically created.
- Easy and cost-effective communication with up to 32 different extension modules over a bus length up to 600m.



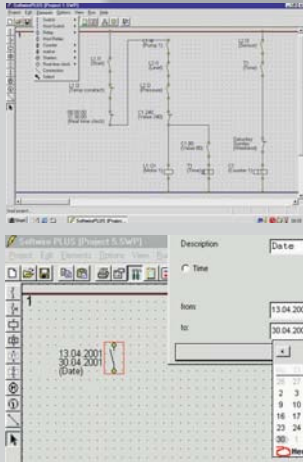
Transport system

- The modules can be either local (plug connections) or remote connected (CAT5 connection).
- Material handling control for complex applications processing large data volumes, e.g. analogue values, status of counters or time parameters.
- Changes of values directly on the PC or display.
- The modular structure allows flexible adaption to changes in the transport process.



Machine control

- Stepper motor control
- Up and down counters
- Preselection counters
- External fieldbus connectivity using the host input and host output functions.
- Optimised display layout and automated address allocation for easy handling.
- Direct coupling via integrated RS232 to PC or text display.

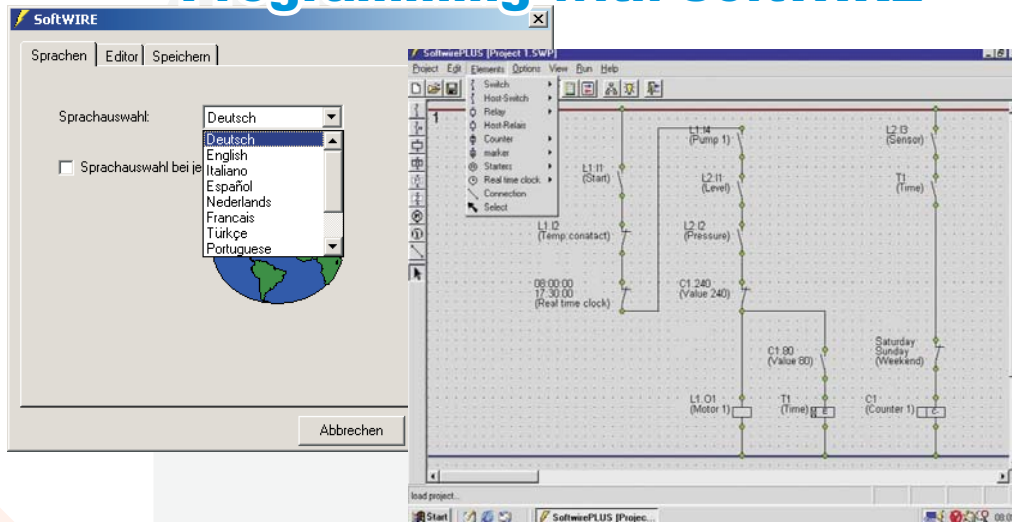


Compact module

HI-86 minimodule

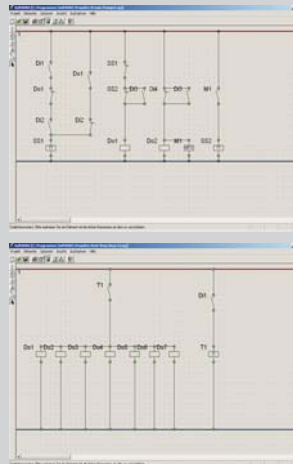


Programming with SoftWIRE



Machine control

- Easy programming via wiring diagram (ladder) with SoftWIRE.
- Manual settings can be adjusted easily without PC using the external potentiometers (2) located on the front plate.
- Simple documentation (printing).
- Ideal for controlling pumps, heating, hydraulic systems, lighting...
- Language selection by mouse click: German, English, Italian, Spanish...



Process control

- Programming without PLC knowledge, suitable for small applications.
- Graphic symbol library for functions and settings. Simple tool bar "drag & drop" selection.
- Easy and flexible program exchange without PC is guaranteed with SIM memory card (2kB user-program memory).
- No limitation of program elements on ladder rungs or function blocks.
- LED indicators for inputs, outputs, supply voltage stop and error.



HI-86 compact module

HI-86 compact module & starter kit

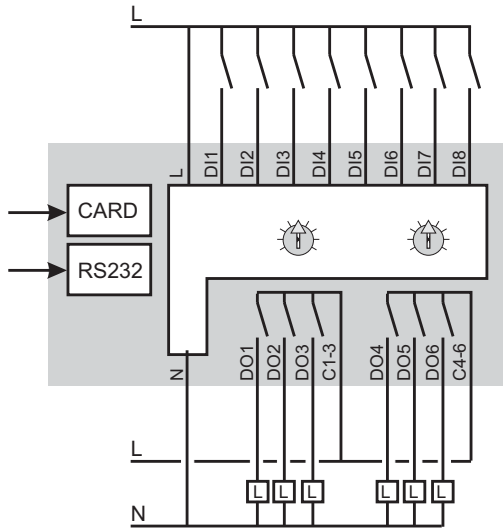
overview

- ◆ compact intelligent relay module
- ◆ supply voltage 20-250V \sim (10-40V \sim on request)
- ◆ 8 digital inputs 20-250V \sim (10-40V \sim)
- ◆ 6 SPNO outputs max. 5A
- ◆ LED indicators for inputs and outputs
- ◆ 2 potentiometers
- ◆ 8kB user-program memory
- ◆ 16 timers
- ◆ 8 counters
- ◆ 14 pre-programmable timing functions
- ◆ 67.5mm DIN rail mount housing
- ◆ graphic programming with 'SoftWIRE' using wiring(ladder) diagram

all you need to get you going - a starter kit:

- ◆ HI-86 minimodule
- ◆ serial interface cable (programming cable)
- ◆ CD-ROM SoftWIRE
- ◆ SIM-Card
- ◆ input simulator
- ◆ manual

The compact programmable (intelligent) relay HI-86 is programmed with "SoftWIRE" wiring diagram and can be used in many fields. The **minimodule HI-86** has 8 digital inputs (20-250Vac/dc), 6 relay outputs (5Amp) and a 8kB user program memory. The RS 232 interface can be used for programming and monitoring. It also features a SIM-card for easy program copy and module to module data transfer.



specification

supply voltage	20-250V \sim =
power consumption	6W nominal
frequency range	48 - 63 Hz
output relay specification	max. 5A 230V \sim
	Ue/Ie AC-15 120V/1,5A 240V/1A
	Ue/Ie DC-13 24V/1A
expected life time	SPNO
	mechanical 1 x 10 ⁷ operations
	electrical 1 x 10 ⁵ operations
input specification	20 - 250V \sim =
	max. 1,3 mA
program memory	8kB
protection class	terminals IP20
	housing IP50
screws	pozidrive 1
screw tightening torque	1,0 Nm
weight	200g
dimensions	67.5 x 85 x 75mm

*EN 60947-5-1 VDE 0435

ordering information

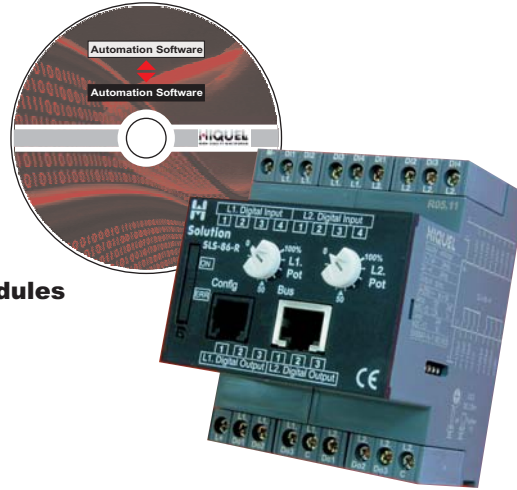
part no	supply	input	inp. galv. iso.*	output	outp. galv. iso.*	housing types
HI-86	20-250V \sim =	6x SPNO	no	6x SPNO	yes	E
HI-86-R-Starter Kit	HI-86-R + SoftWIRE + download cable + manual + SIM-Card + input simulator					
HI-86-SIM	SIM-Card memory 2kB					
HI-Std-RS232	download cable					

* measurement input galvanically isolated from the power supply

SLS-86 compact module & starter kit

overview

- ◆ system base module
- ◆ supply voltage 24V=
- ◆ 8 digital inputs 24V= (4 dual d/a 0-10V)
- ◆ 6 SPCO outputs max. 5A
- ◆ RS232 interface for programming/monitoring
- ◆ RS485 interface to connect up to 31 SLS-I/O modules
- ◆ LED indicators for inputs and outputs
- ◆ 2 potentiometers
- ◆ 8kB user-program memory
- ◆ 32 timers, 32 counters
- ◆ real time clock (RTC) with calendar function
- ◆ 67.5mm DIN rail mount housing
- ◆ graphical programming with 'SoftwirePLUS' by wiring diagram



all you need to get you going - a starter kit:

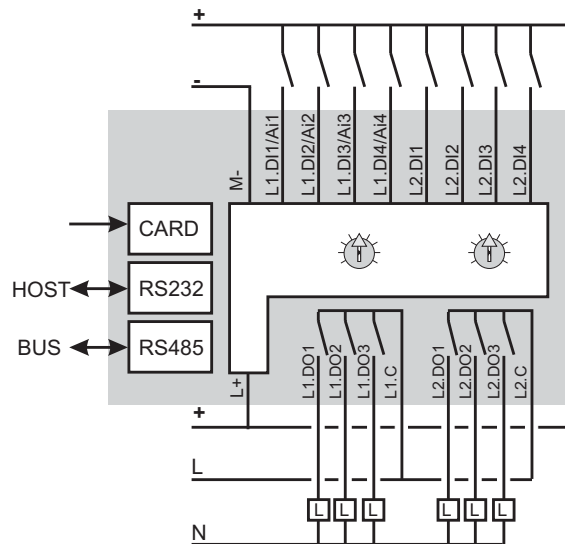
- ◆ SLS-86-R 24V=(base module)
- ◆ serial interface cable (programming cable)
- ◆ CD-ROM SoftwirePLUS
- ◆ SIM-Card
- ◆ input simulator
- ◆ manual

Specification

supply voltage	24V= ±10%
power consumption	1W nominal
output relay specification	max. 5A 230V~
Ue/Ie AC-15	120V/1,5A 240V/1A
Ue/Ie DC-13	24V/1A
Ue DC-13 photomos	max. 60V~/=2A
expected life time	SPNO
mechanical	1 x 10 ⁷ operations
electrical	1 x 10 ⁵ operations
input specification	24V= max. 5 mA
program memory	8kB
protection class	terminals IP20
	housing IP50
screws	pozidrive 1
screw tightening torque	1,0 Nm
weight	210g
dimensions	67.5 x 85 x 75mm

*EN 60947-5-1 VDE 0435

The modular intelligent relay **SLS86** is programmed with SoftwirePLUS and can be used in many fields including industrial control, automation, and building management. The **base module SLS 86** has 8 digital inputs (4 dual digital or analogue), 6 relay outputs, and a 8 kB user program memory with 64kB internal flash and a SIM-card for program copy and module to module data transfer as well as an integrated real time clock.



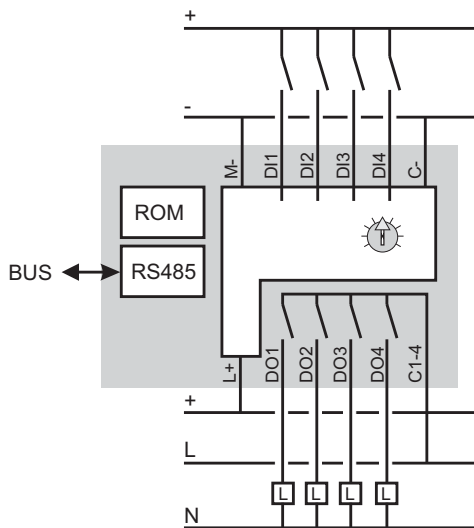
Ordering information

part no	supply	input	inp. galv. iso.	output	outp. galv. iso.	housing types
SLS-86-R	24V=	8x 24V=	no	6x SPNO	yes	E
SLS-86-S	24V=	8x 24V=	no	6x photomos	yes	E
SLS-86-R-Starter Kit	SLS-86-R + SoftwirePLUS + download cable + manual + SIM-Card + input simulator					
SLS-86-SIM	SIM-Card memory 8kB					
SLS-86-BUS	bus termination for external I/O modules					
SLS-Std-RS232	download cable					

* measurement input galvanically isolated from the power supply



SLS-86 master controller and starter kit



SLS-D

overview

- ◆ digital I/O expansion module
- ◆ supply voltage 24V=
- ◆ 4 digital inputs 24V=
- ◆ 4 outputs
 - SPNO 230V~ max. 5A
 - or transistor (PNP) 24V= max.800mA
 - or photomos 60V~ max.2A
- ◆ LED indicators for inputs and outputs
- ◆ RS485 interface
- ◆ 1 potentiometer
- ◆ pre-programmable timer functions
- ◆ 45mm DIN rail mount housing

specification

supply voltage	24V= ±10%
power consumption	0,5W nominal
output relay specification	max. 5A 230V~
Ue/Ie AC-15	120V/1,5A 240V/1A
Ue/Ie DC-13	24V/1A
expected life time	SPNO
mechanical	1x10 ⁷ operations
electrical	1x10 ⁵ operations
output transistor spec.	max. 800mA 24V= PNP
output photomos spec.	max. 60V~=/2A
input specification	24V=
	min. 5 mA
protection class	terminals IP20
	housing IP50
screws	pozidrive 1
screw tightening torque	0,6..0,8 Nm
weight	140g
dimensions	45 x 85 x 75mm
operating conditions	-10 to +55 °C non condensing

*EN 60947-5-1 VDE 0435

ordering information

part no	type	supply	input	inp. galv. iso.*	output	outp. galv. iso.*	housing types
SLS-DR-C	local	24V=	4x 24V=	yes	4x SPNO	yes	C
SLS-DR-D	remote	24V=	4x 24V=	yes	4x SPNO	yes	C
SLS-DT-C	local	24V=	4x 24V=	yes	4x trans. PNP	no	C
SLS-DT-D	remote	24V=	4x 24V=	yes	4x trans. PNP	no	C
SLS-DS-C	local	24V=	4x 24V=	yes	4x photomos	yes	C
SLS-DS-D	remote	24V=	4x 24V=	yes	4x photomos	yes	C

* measurement input galvanically isolated from the power supply

SLS-D...-16A

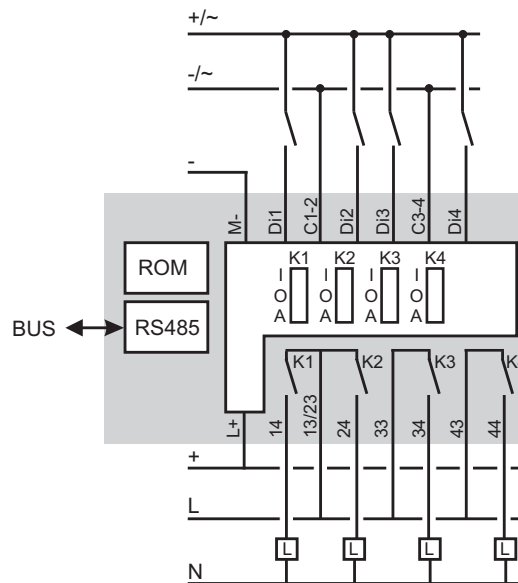
overview

- ◆ digital I/O expansion module
- ◆ supply voltage 24V=
- ◆ 4 digital inputs 24V= or 230V~
- ◆ 4 SPNO outputs 250V~ max. 16A
- ◆ LED indicators for inputs and outputs
- ◆ RS485 interface
- ◆ 1 potentiometer
- ◆ pre-programmable timer functions
- ◆ 67,5mm DIN rail mount housing



specification

supply voltage	24V= ±10%
power consumption	0,5W nominal
output relay specification	max. 16A 250V~
U _e /I _e AC-15	120V/3A 240V/3A
U _e /I _e DC-13	24V/1,5A
expected life time	SPNO
mechanical	1x10 ⁷ operations
electrical	1x10 ⁴ operations
input specification	230V~ / 24V=
	min. 1 mA / min. 3mA
protection class	terminals IP20
	housing IP50
screws	pozidrive 1
screw tightening torque	0,6..0,8 Nm
weight	140g
dimensions	45 x 85 x 75mm
operating conditions	-15 to +55 °C non condensing
	*EN 60947-5-1 VDE 0435



ordering information

part no	type	supply	input	inp. galv. iso.*	output	outp. galv. iso.*	housing types
SLS-DRR-16A-C	local	24V=	4x 230V~	yes	4x SPNO	yes	E
SLS-DRR-16A-D	remote	24V=	4x 230V~	yes	4x SPNO	yes	E
SLS-DR-16A-C	local	24V=	4x 24V=	yes	4x SPNO	yes	E
SLS-DR-16A-D	remote	24V=	4x 24V=	yes	4x SPNO	yes	E

* measurement input galvanically isolated from the power supply



SLS-D...-16A digital I/O module



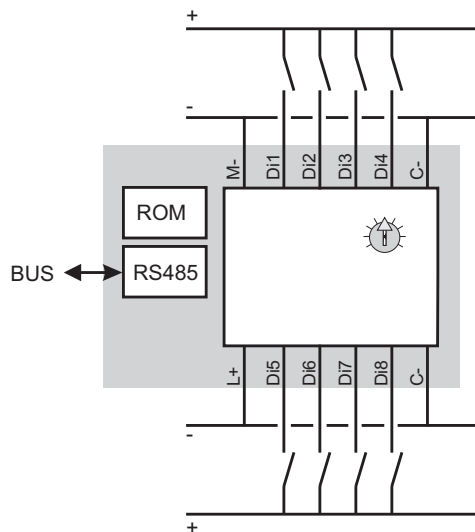
SLS-8DI

overview

- ◆ digital input expansion module
- ◆ supply voltage 24V=
- ◆ 8 digital inputs 24V=
- ◆ LED indicators for inputs
- ◆ RS485 interface
- ◆ 1 potentiometer
- ◆ pre-programmable timer functions
- ◆ 45mm DIN rail mount housing

specification

supply voltage	24V= ±10%
power consumption	0,5W nominal
input specification	24V=
	min. 5 mA
protection class	terminals IP20
	housing IP50
screws	pozidrive 1
screw tightening torque	0,6..0,8 Nm
weight	140g
dimensions	45 x 85 x 75mm
operating conditions	-10 to +55 °C non condensing



ordering information

part no	type	supply	input	inp. galv. iso.*	output	outp. galv. iso.*	housing types
SLS-8DI-C	local	24V=	8x 24V=	yes	-	-	C
SLS-8DI-D	remote	24V=	8x 24V=	yes	-	-	C

* measurement input galvanically isolated from the power supply

SLS-8D

overview

- ◆ digital output expansion module
- ◆ supply voltage 24V=
- ◆ 8 outputs
 - SPNO 230V~= max. 5A
 - or transistor (PNP) 24V= max. 800mA
 - or photomos 60V~= max. 2A
- ◆ LED indicators for inputs and outputs
- ◆ RS485 interface
- ◆ 1 potentiometer
- ◆ pre-programmable timer functions
- ◆ 45mm DIN rail mount housing

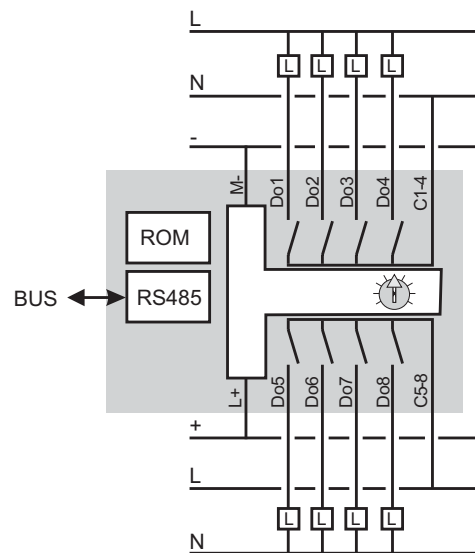
specification

supply voltage	24V= ±10%
power consumption	0,5W nominal
output relay specification	max. 5A 230V~
Ue/Ie AC-15	120V/1,5A 240V/1A
Ue/Ie DC-13	24V/1A
expected life time	SPNO
mechanical	1x10 ⁷ operations
electrical	1x10 ⁵ operations
output transistor spec.	max. 800mA 24V= PNP
output photomos spec.	max. 60V~=/2A
protection class	terminals IP20
	housing IP50
screws	pozidrive 1
screw tightening torque	1,0 Nm
weight	140g
dimensions	45 x 85 x 75mm
operating conditions	-15 to +55 °C non condensing
	*EN 60947-5-1 VDE 0435

ordering information

part no	type	supply	input	inp. galv. iso.*	output	outp. galv. iso.*	housing types
SLS-8DR-C	local	24V=	-	-	8x SPNO	yes	C
SLS-8DR-D	remote	24V=	-	-	8x SPNO	yes	C
SLS-8DT-C	local	24V=	-	-	8x trans. PNP	no	C
SLS-8DT-D	remote	24V=	-	-	8x trans. PNP	no	C
SLS-8DS-C	local	24V=	-	-	8x photomos	yes	C
SLS-8DS-D	remote	24V=	-	-	8x photomos	yes	C

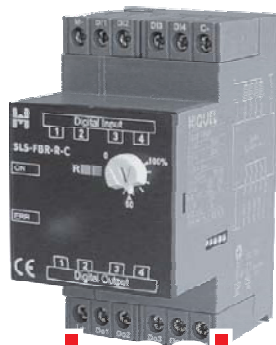
* measurement input galvanically isolated from the power supply





SLS-FBR

overview



local

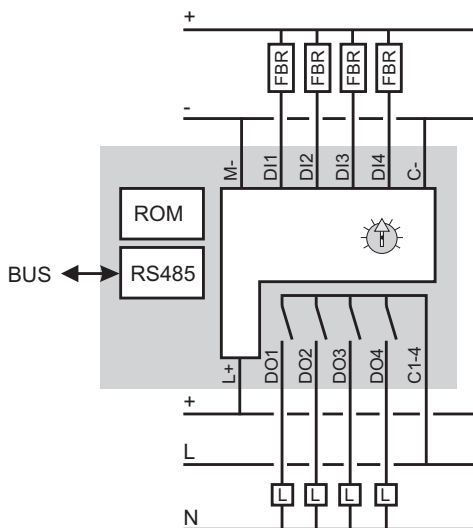


remote



FBR
room controller module
2-wire connection to
SLS-FBR module

FBR



- ◆ digital room controller expansion module
- ◆ supply voltage 24V=
- ◆ 4 FBR inputs 24V=
- ◆ 4 outputs
 - SPNO 230V~= max. 5mA
 - or transistor (PNP) 24V= max. 500A
- ◆ LED indicators for inputs and outputs
- ◆ room temperature controller with day / night- and auto-switch, temperature registration and temperature correction
- ◆ RS485 interface
- ◆ 1 potentiometer
- ◆ pre-programmable timer functions
- ◆ 45mm DIN rail mount housing

specification

supply voltage	24V= ±10%
power consumption	0,5W nominal
output relay specification	max. 5A 230V~
Ue/Ie AC-15	120V/1,5A 240V/1A
Ue/Ie DC-13	24V/1A
expected life time	SPNO
mechanical	1x10 ⁷ operations
electrical	1x10 ⁶ operations
output transistor spec.	max. 500mA 24V= PNP
input specification	24V=
	min. 5 mA
protection class	terminals IP20
	housing IP50
screws	pozidrive 1
screw tightening torque	0,6..0,8 Nm
weight	140g
dimensions	45 x 85 x 75mm
operating conditions	-15 to +55 °C non condensing
	*EN 60947-5-1 VDE 0435

ordering information

part no	type	supply	input	inp. galv. iso.*	output	outp. galv. iso.*	housing types
SLS-FBR-R-C	local	24V=	4x 24V=	yes	4x SPNO	yes	C
SLS-FBR-R-D	remote	24V=	4x 24V=	yes	4x SPNO	yes	C
SLS-FBR-T-C	local	24V=	4x 24V=	yes	4x trans. PNP	no	C
SLS-FBR-T-D	remote	24V=	4x 24V=	yes	4x trans. PNP	no	C
FBR	please refer to page 03:08						

* measurement input galvanically isolated from the power supply

SLS-PTC

overview

- ◆ PTC (thermistor) input expansion module
- ◆ supply voltage 24V=
- ◆ thermistor motor protection
- ◆ 4 PTC inputs for PTC-sensors DIN 44081
- ◆ 4 transistor (PNP) outputs
- ◆ LED indicators for outputs
- ◆ RS485 interface
- ◆ 1 potentiometer
- ◆ pre-programmable timer functions
- ◆ 45mm DIN rail mount housing

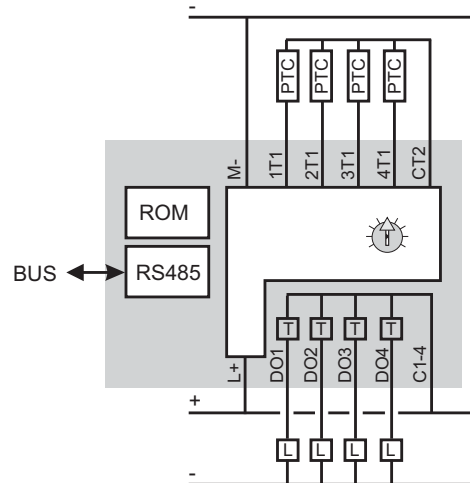
specification

supply voltage	24V= ±10%
power consumption	0,5W nominal
output transistor spec.	max. 800mA 24V= PNP
input specification	PTC sensor input DIN 44081
	max. 1.500 Ohm / 6 sensors
	trigger 3.100 Ohm ±10%
	reset 1.650 Ohm ±10%
	short 0 -20 Ohm ±10%
protection class	terminals IP20
	housing IP50
screws	pozidrive 1
screw tightening torque	0,6..0,8 Nm
weight	120g
dimensions	45 x 85 x 75mm
operating conditions	-15 to +55 °C non condensing

ordering information

part no	type	supply	input	inp. galv. iso.*	output	outp. galv. iso.*	housing types
SLS-PTC-C	local	24V=	4x PTC	no	4x trans. PNP	no	C
SLS-PTC-D	remote	24V=	4x PTC	no	4x trans. PNP	no	C

* measurement input galvanically isolated from the power supply



SLS-PT100

overview

- ◆ PT100 input expansion module
- ◆ supply voltage 24V=
- ◆ 2 PT100 inputs
- ◆ 4 transistor (PNP) outputs
- ◆ LED indicators for outputs
- ◆ RS485 interface
- ◆ 1 potentiometer
- ◆ pre-programmable timer functions
- ◆ 45mm DIN rail mount housing



specification

supply voltage	24V= ±10%
power consumption	0,5W nominal
output transistor spec.	max. 800mA 24V= PNP
input specification	PT100 element -50°C to +300°C 0,1°C repeat accuracy
protection class	terminals IP20 housing IP50
screws	pozidrive 1
screw tightening torque	0,6..0,8 Nm
weight	120g
dimensions	45 x 85 x 75mm
operating conditions	-15 to +55 °C non condensing

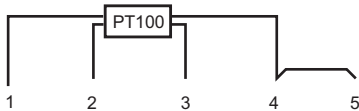
ordering information

part no	type	supply	input	inp. galv. iso.*	output	outp. galv. iso.*	housing types
SLS-PT100-C	local	24V=	2x PT100	no	4x trans. PNP	no	C
SLS-PT100-D	remote	24V=	2x PT100	no	4x trans. PNP	no	C

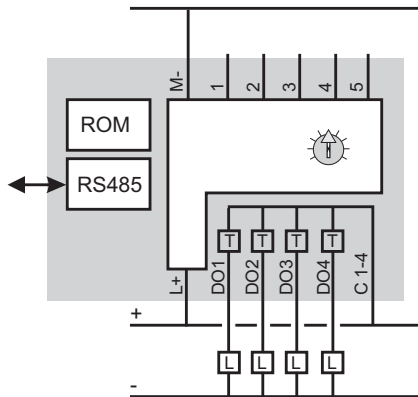
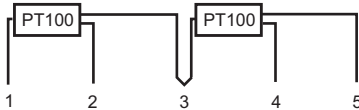
* The ordering information for various sensors you will find on page 03:23
 * measurement input galvanically isolated from the power supply

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1 PT100 4-wire connection



2 PT100 3-wire connection



SLS-PT1000

overview

- ◆ PT1000 input expansion module
- ◆ supply voltage 24V=
- ◆ up to 4 PT1000 inputs
- ◆ 4 transistor (PNP) outputs
- ◆ LED indicators for outputs
- ◆ RS485 interface
- ◆ 1 potentiometer
- ◆ pre-programmable timer functions
- ◆ 45mm DIN rail mount housing

specification

supply voltage	24V=
power consumption	0,5W nominal
output transistor spec.	max. 800mA 24V= PNP
input specification	PT1000 element -50°C to +300°C 0,1°C repeat accuracy
protection class	terminals IP20 housing IP50
screws	pozidrive 1
screw tightening torque	0,6..0,8 Nm
weight	120g
dimensions	45 x 85 x 75mm
operating conditions	-15 to +55 °C non condensing

ordering information

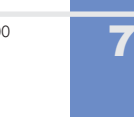
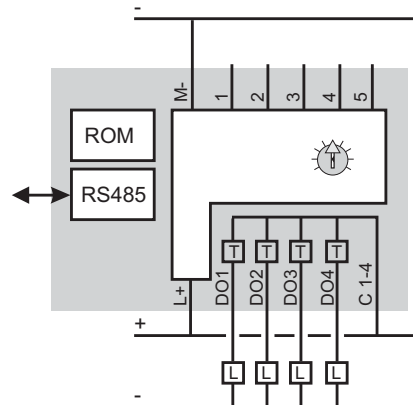
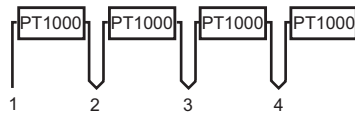
part no	type	supply	input	inp. galv. iso.*	output	outp. galv. iso.*	housing types
SLS-PT1000-C	local	24V=	4x PT1000	no	4x trans. PNP	no	C
SLS-PT1000-D	remote	24V=	4x PT1000	no	4x trans. PNP	no	C

* The ordering information for various sensors you will find on page 03:23

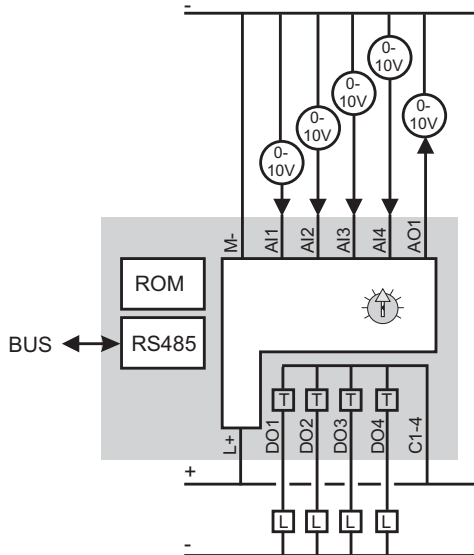
* measurement input galvanically isolated from the power supply



4 PT1000 2-wire connection



SLS-PT1000 temperature input module



SLS-AU

overview

- ◆ analogue I/O expansion module
- ◆ supply voltage 24V=
- ◆ 4 analogue inputs 0-10V
- ◆ 1 analogue output 0-10V
- ◆ 4 transistor (PNP) outputs
- ◆ LED indicators for outputs
- ◆ RS485 interface
- ◆ 1 potentiometer
- ◆ pre-programmable timer functions
- ◆ 45mm DIN rail mount housing

specification

supply voltage	24V=
power consumption	0,5W nominal
transistor output spec.	max. 800mA 24V= PNP max. 8kHz
analogue output spec.	0 - 10V= max. 2mA resolution 10 bit repeat accuracy 0,1% precision ±0,5%
analogue input spec.	0 - 10V= resolution 12 bit
input resistance	50kOhm
protection class	terminals IP20 housing IP50
screws	pozidrive 1
screw tightening torque	0,6..0,8 Nm
weight	120g
dimensions	45 x 85 x 75mm
operating conditions	-15 to +55 °C non condensing

ordering information

part no	type	supply	input	inp. galv. iso.*	output	outp. galv. iso.*	housing types
SLS-AU-C	local	24V=	4x 0-10V	no	4x trans. PNP	no	C
SLS-AU-D	remote	24V=	4x 0-10V	no	4x trans. PNP	no	C

* The ordering information for various sensors you will find on page 03:23
* measurement input galvanically isolated from the power supply

SLS-AI

overview

- ◆ analogue I/O expansion module
- ◆ supply voltage 24V=
- ◆ 4 analogue inputs 0-20mA
- ◆ 1 analogue output 0-10V
- ◆ 4 transistor (PNP) outputs
- ◆ LED indicators for outputs
- ◆ RS485 interface
- ◆ 1 potentiometer
- ◆ pre-programmable timer functions
- ◆ 45mm DIN rail mount housing

specification

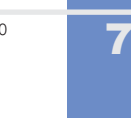
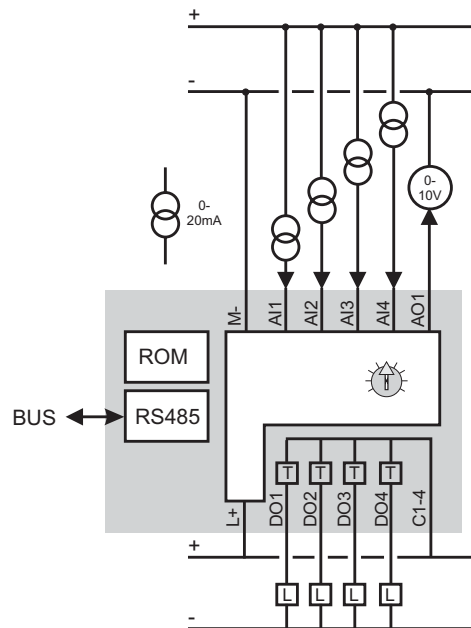
supply voltage	24V=
power consumption	0,5W nominal
output transistor spec.	max. 800mA 24V= PNP max. 8kHz
analogue output spec.	0 - 10V= max. 2mA
resolution	10 bit
repeat accuracy	0,1%
precision	±0,5%
analogue input spec.	0 - 20mA
resolution	12 bit
input resistance	250 Ohm
protection class	terminals IP20 housing IP50
screws	pozidrive 1
screw tightening torque	0,6..0,8 Nm
weight	120g
dimensions	45 x 85 x 75mm
operating conditions	-15 to +55 °C non condensing

ordering information

part no	type	supply	input	inp. galv. iso.*	output	outp. galv. iso.*	housing types
SLS-AI-C	local	24V=	4x 0-20mA	no	4x trans. PNP	no	C
SLS-AI-D	remote	24V=	4x 0-20mA	no	4x trans. PNP	no	C

* The ordering information for various sensors you will find on page 03:23.

* measurement input galvanically isolated from the power supply



SLS-AI analogue I/O module (current)