EYZ 291: Router, novaNet291

EYZ291F001

How energy efficiency is improved

SAUTER novaNet communication, technology that has proven itself thousands of times over

Features

- Part of the EY-modulo 2 and EY3600 system family
- Bus access device for novaNet system bus with RS-232 interface
- For configuring EY-modulo 2 and EY3600 stations with SAUTER CASE applications
- For management-level software and all SAUTER novaPro visualisations and novaNet OPC servers
- Direct communication from novaNet stations to PC with a serial connection
- Remote access with router function via RS-232 modem
- Remote monitoring in routel mode via RS-232 modem (i.e. automatic uploading of events)
- Communication using two-wire novaNet system bus
- Communication with RS-232-compatible pairs of devices (dial-up modem, ISDN adaptor, electronic surge protector, OWG converter, wireless modem etc.)
- 1 MB buffer for separating the time characteristics of novaNet and RS-232 interface

Technical data

Power supply		
	Power supply	230 V~, 50/60 Hz
	Max. current consumption	10 VA
Ambient conditions		
	Operating temperature	0...45 °C (32...113 °F)
	Storage and transport temperature	–25...70 °C (–13...158 °F)
	Humidity	10…90% rh, no condensation
Interfaces and communication		
	COM port (DTE)	DB9 plug
	novaNet	1 × a/b terminal, 1 × RJ-11 socket
	DIP switch	4 (baud rate, router/routel function)
Construction		
	Weight	0.99 kg (2.2 lb)
Standards and directives		
	Type of protection	IP 20 (EN 60529)
CE conformity as per	EMC directive 2004/108/EC	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4

Overview of types

Type	Description
EYZ291F001	novaNet router

Accessories

Type	Description
0367862001	novaNet291 or moduNet292 automation station 1.5 m (4.9 ft)
0367862002	novaNet291 or moduNet292 automation station 2.9 m (9.5 ft)
0367862003	novaNet291 or moduNet292 automation station 6.0 m (19.7 ft)

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Additional informat

Fitting instructions	MV 505463

Description of operation

Configuration of EY3600 and EY-modulo 2 stations via RS-232 interface. Access unit for SAUT-ER novaPro visualisation and novaNet OPC-Server management level software.
The novaNet EYZ291F001 router is used to connect the EY3600 novaNet to a (notebook) PC via the COM interface. The connection is either directly to the PC COM interface or via a dial-up modem as

regards every other switched or unswitched RS232-compatible device pair (ISDN adaptor, line driver, converter for optical fibres, dedicated line modem, wireless modem etc.). The novaNet router has 1 MB buffer memory for de-coupling the time characteristic of the novaNet and the RS232 interface. The functionality in the dial-up mode comprises the selection from above (remote access/router mode) and the selection from below (remote monitoring/routel mode, i.e. automatic reporting of relevant events).

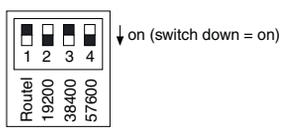
Intended use

This product is only suitable for the purpose intended by the manufacturer, as described in the “Description of operation” section.
All related product documents must also be adhered to. Changing or converting the product is not admissible.

Engineering notes

- The EYZ291F001 novaNet router is designed for mounting on a DIN EN 50022 top-hat rail, as well as for portable use or as a tabletop device.
- The EYZ291F001 version is powered with 230 V~ and the EYZ291F005 version with 115 V~.
- On the back there are a socket for the mains power supply (3-pin P+N+E lead required) and power switch, a DB9 plug for the RS-232 connection, 1 DIL switch for selecting router or routel mode, 3 DIL switches for selecting the baud rate (19200, 38400, 57600) as well as an RJ-11 socket and a plug-in screw terminal for connecting to the novaNet.

DIL switches

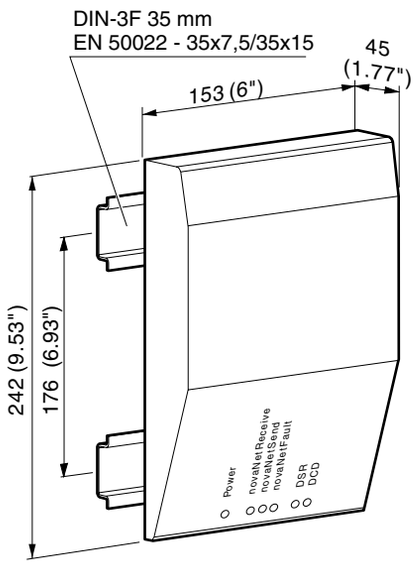


Switch 1 = On (switch down) switches the novaNet291 to routel mode.
The baud rate of the COM interface is selected by setting the corresponding DIL switches (38400 baud recommended). If no baud rate switch is set, a speed of 9600 baud is selected.

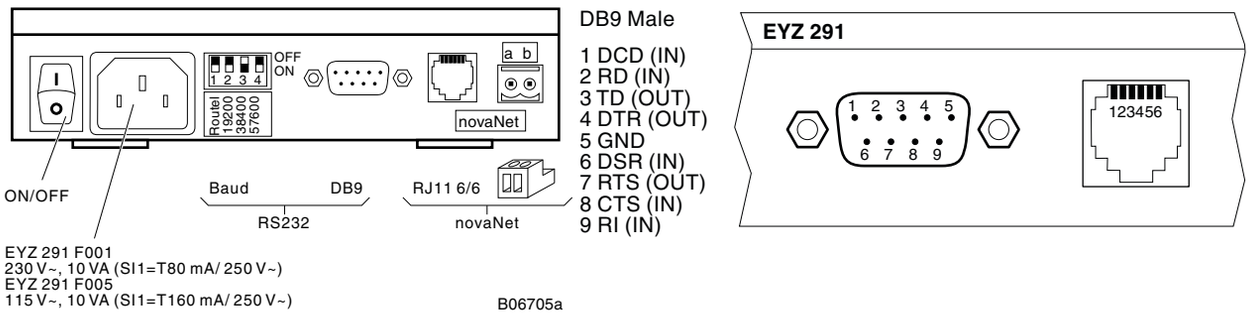
Disposal

When disposing of the product, observe the currently applicable local laws.
More information on materials can be found in the Declaration on materials and the environment for this product.

Dimension drawing



Connection diagram

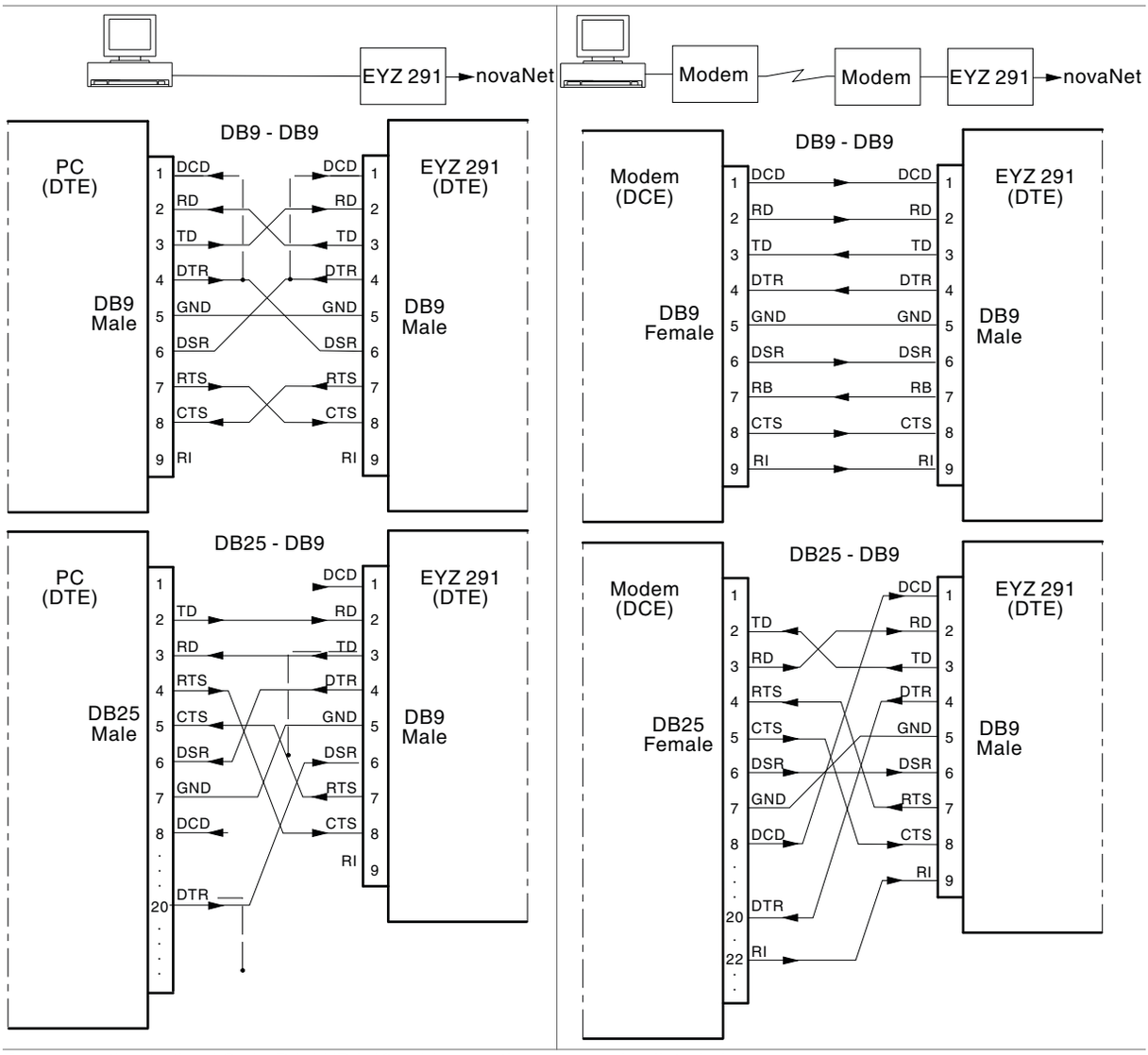


Wiring

Note:

The pin assignment of the RS-232 plug is defined according to DTE (data terminal equipment), which means crossover cables must be used for connection to a PC (=DTE).

- The crossover should be as shown below.
- Not all null modem cables are suitable.
- A non-crossover cable (supplied with the modem) is used for connection with the modem.



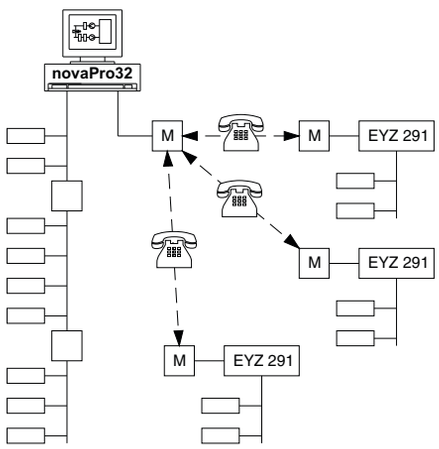
For connection to the AS via RJ-11/RJ-12 cable, use the accessories listed above.

The PC address is set using the EY3600 software. The address range reserved for the management level PC with router is from 31744 and 31999, the range for a management level with routel is from 32512 to 32767. See manual 7000991.001.

Application

- **Clip-on PC:** Access to AS network with computers without an ISA slot (notebooks).
- **Remote access (router mode):** Access from PC to the novaNet via all types of connected or non-connected networks, by intermediary connection of two DCEs (e.g. modem access via telephone network or access via ISDN TA, fibreoptic converter, COM server, CATV modem, wireless modem etc.).
- **Remote monitoring (routel mode):** Remote units report significant events (configured using novaPro32) via a connected network to a central operating station.

Remote monitoring topology (routel mode)



LED indicator and diagnostics

Power	Green	Mains power present
novaNet Receive	Yellow	Flashes irregularly when telegrams are in circulation on the novaNet
novaNet Send	Yellow	Flashes when the novaNet-Router sends telegrams to the AS.
novaNet Fault	Red / yellow	Indicates novaNet faults, e.g.: Earth fault (each pole) DC or AC external voltage > 50% of AS have no power supply. (LED red when: a < 3.74 V, a > 8.88 V, b < 1.11 V, b > 6.22 V)
DSR	Green	The modem or PC connected to the router is operational (DTR crossed).
DCD	Green	“Connected” (online) message from a connected modem.

Fr. Sauter AG
Im Surinam 55
CH-4016 Basel
Tel. +41 61 - 695 55 55
www.sauter-controls.com