



The RotexSolaris Driver



The RotexSolaris driver connects to the Rotex Solaris RPS3 solar heating system. Available for ObSys and Commander.

This document relates to RotexSolaris driver version 1.0

Please read the *Commander Manual* or *ObSys Manual* alongside this document, available from www.northbt.com

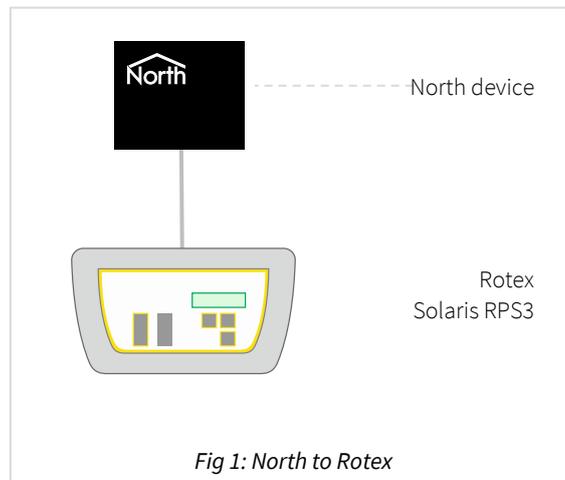
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Compatibility with the Rotex Solaris

The RotexSolaris driver allows North to interface with a Rotex thermal solar heating system.

The driver connects to a Rotex Solaris RPS3 control and pump unit (Fig. 1). The Solaris controller sends values to the driver every few seconds, which are stored by the driver.



Equipment

Equipment compatible with the driver includes:

- Solaris RPS3 25m – a Solaris R3 controller with storage tank temperature sensor, return flow temperature sensor, collector sensor terminal block, terminal block for mains and pump connection and a PC interface socket.

Values

The driver can typically access the following values:

- Operation modes
- Status
- Flow temperatures
- Errors

Values can only be read, no adjustment is possible.

Prerequisites

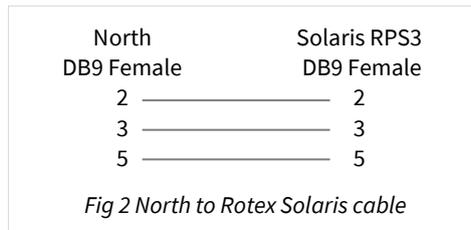
Configure the Solaris controller to send value to the driver. First, enter the 'Expert Level' password to enable the System Data Output menu. From this menu, set the cycle time to 5s and the baud rate to 9600.

Using the Driver

On ObSys, the RotexSolaris driver is pre-installed. On Commander, the driver is available to download in the file 'Bank15 RotexSolaris.cdm'. On all of the North devices, you can use the driver to create an interface to Rotex. Once started, you will need to set up the driver before it can communicate with the Rotex Solaris system.

Making the Cable

Using the RS232 cable specification, connect the North Device COM port to the Solaris controller COM port. Connector types at each end of the cable are shown.



The maximum RS232 cable length is 15m and should be as short as possible.

Cables are available from North or Rotex.

Starting the Interface

- 🖥️ To start an interface using the RotexSolaris driver, follow these steps:
 - **Start Engineering** your North device using ObSys
 - Navigate to **Configuration, Interfaces**, and set a unused **Interface** to 'RotexSolaris' to start the particular interface
 - Navigate to the top-level of your North device, then rescan it

The driver setup object (Mc), labelled **RotexSolaris Setup**, should now be available. If this object is not available, check an interface licence is available and the driver is installed.

Setting up the Driver

- 🖥️ To set up the driver, follow these steps:
 - Navigate to the **RotexSolaris Setup** object (Mc). For example, if you started interface 1 with the driver earlier, then the object reference will be 'M1'
 - Set the **RS232 Com Port** (RS.COM) to select which serial port on the North Device is connected to the Solaris controller
 - Set the **Baud Rate** (RS.BR) to match that of the Solaris controller.

Checking Communications

You can check that the interface is communicating by reading the **Comms Online** object (DS). A value of 'Yes' indicates the driver has received a valid message from the Solaris controller.

Object Specifications

Once an interface is started, one or more extra objects become available within the top-level object of the device. As with all North objects, each of these extra objects may contain sub-objects, (and each of these may contain sub-objects, and so on) - the whole object structure being a multi-layer hierarchy. It is possible to navigate around the objects using the ObSys Engineering Software.

Each object is specified below, along with its sub-objects.

Example Object Reference

An example of a reference to an object in the same device: the Rotex Solaris (S1) contains a Return Temp (V6). Therefore, the complete object reference is 'S1.V6'.

An example of a reference to an object in a different device: the IP network object (IP) contains Default Commander object (CDIP), which contains the object above (S1.V6) – therefore the complete object reference is 'IP.CDIP.S1.V6'.

Device Top-Level Objects

When an interface is started using the RotexSolaris driver, the objects below become available within the top-level object of the device. For example, if interface 1 is started, then the object references 'M1' and 'S1' become available.

Description	Reference	Type
RotexSolaris Setup Set up the RotexSolaris driver, started on interface <i>c</i> (<i>c</i> is the interface number)	Mc	Fixed Container: On the Commander platform this will be <i>[CDM v20\RotexSolaris v10]</i> On the ObSys platform this will be <i>[OSM v20\RotexSolaris v10]</i>
RotexSolaris System Access RotexSolaris system connected to interface <i>c</i> (<i>c</i> is the interface number)	Sc	Fixed Container: <i>[RotexSolaris v10]</i>

RotexSolaris Driver Setup

Object Type: [OSM v20\RotexSolaris v10]

Object Type: [CDM v20\RotexSolaris v10]

The RotexSolaris driver contains the following objects:

Description	Reference	Type
Device Label	DL	Obj\Text: 20 chars; Adjustable
RS232 COM Port	RS.COM	Obj\Num:1...8; Adjustable
Baud Rate	RS.BR	Obj\Num; Adjustable Values: 2400, 4800 and 9600
Device Comms Ok Indicates whether communication received from the Solaris controller	DS	Obj\NoYes

RotexSolaris System

Object Type: [RotexSolaris v10]

The RotexSolaris system contains the following objects:

Description	Reference	Type
Ha Manual to Automatic return (l/min)	V1	Obj\Num: 1...900
BK Burner Contact Enable	V2	Obj\NoYes
P1 Circulation Pump Rate	V3	Obj\Num: 0...100
P2 Booster Pump Enabled	V4	Obj\NoYes
TK Collector Temp (°C)	V5	Obj\Num: -55...250
TR Return Temp (°C)	V6	Obj\Num: 0...100
TS Storage Temp (°C)	V7	Obj\Num: 0...100
TV Flow Temp (°C)	V8	Obj\Num: 0...100
V Flow Rate (l/min)	V9	Obj\Num: 0...20
Error Location Shows the position of one or more reported faults shown on the controller in the forms of one or more-character codes.	V10	Obj\Text Where: 'K': Collector, 'R': Return temp sensor, 'S': Storage tank temp sensor, 'V': Inflow temp sensor, 'D': Flow sensor
P Power (W)	V11	Obj/Num

Driver Versions

Version	Build Date	Details
1.0	30/07/2012	Driver released

Next Steps...

If you require help, contact support on 01273 694422 or visit www.northbt.com/support



North Building Technologies Ltd
+44 (0) 1273 694422
support@northbt.com
www.northbt.com

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Author: LH
Checked by: JF

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