



SICLIMAT™ X

DP/LON link

IRC

The DP/LON link connects the LON (Local Operating Network) field bus of the building automation level to the PROFIBUS DP (Decentralised Peripherals) at the process automation level.

This makes it possible to exchange data directly between the DESIGO RX individual room controllers and the SIMATIC S7 devices. The SICLIMAT Engineering Manager (EM) holds the most common applications for the DESIGO RX individual room control range, in the form of "Typicals" (typical applications) for automated engineering.

LON network variable bindings are not required in conjunction with the DP/LON link. LON third-party devices can be implemented.

Use

The DP/LON link facilitates the direct exchange of data between the PROFIBUS-DP (Decentralised Peripherals) and the LON (Local Operating Network). The LON devices are integrated with the PROFIBUS DP by connecting the two open standard communications systems – the PROFIBUS DP for the SIMATIC S7 and the LON bus for the building automation system.

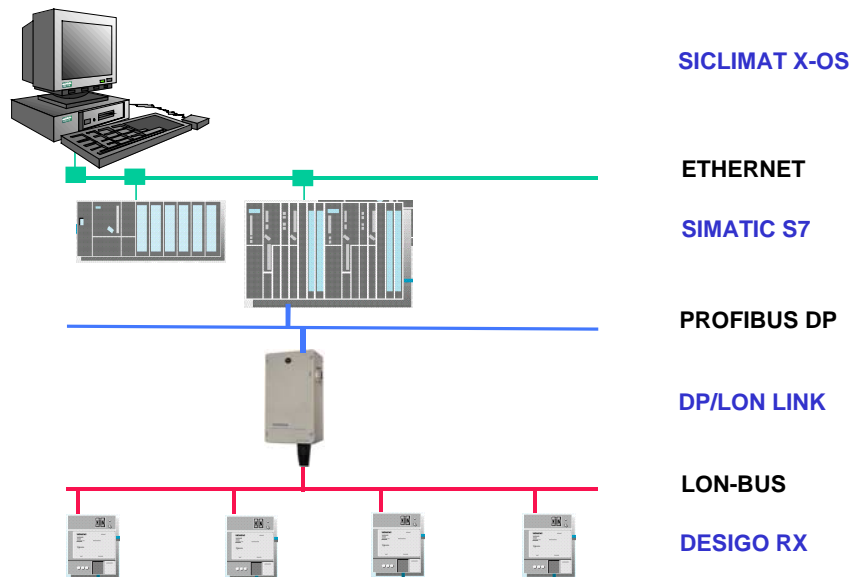
The DP/LON link is particularly suitable for individual room control functions. Multi-disciplinary applications such as the operation of lighting, blinds and individual room controllers from a single room unit are easy to implement. The electrical plant, solar protection and individual room control disciplines can all be monitored, controlled and displayed in the uniformly engineered SICLIMAT X building management system.

The DP/LON link has a compact housing, insulated to protection standard IP40. It is constructed for installation in the field, in control panels and on sub-distribution boards. The unit is mounted on a standard DIN rail.

It is connected as a DP slave to the SIMATIC S7. Data can be exchanged by over the LON in a polling process; no engineering is required. There is no need for LON network variable bindings to the communications interface.

The SICLIMAT Engineering Manager EM incorporates the most common DESIGO RX applications in the form of "Standard Typicals".

Configuration



Features

The DP/LON link is a DP slave and maps data objects of the LON device in the I/O area of the SIMATIC S7. The question of which LON data objects are connected to the Profibus is defined by the "Typical" for the required LON device application in the SICLIMAT Engineering Manager. There is no need for SNVT LON network variable bindings to the communications interface.

The DP/LON link polls all the connected LON devices cyclically and transmits any change-of-state or any changes in the data object at the time of polling. The PROFIBUS master, the SIMATIC S7, is thus able to read or write data objects on the LON bus.

The SICLIMAT OP7/17 can be connected to the SIMATIC S7 for local operation and monitoring of LON bus data points.

The SICLIMAT Engineering Manager EM currently holds the most common DESIGO RX applications.

With the DP/LON link, the number and type of LON data points to be transmitted to the PROFIBUS is determined by the typical applications defined in the EM ("Application Typical"). The number of connected LON devices is based on the available memory resources of the CPU and the maximum admissible cycle time for polling.

Engineering Manager "Application Typical" can be created for new DESIGO RX applications or LON third-party devices.

The DESIGO RX objects store their data in standard SICLIMAT X objects such as Messages, Switch commands, Measured values and Setpoints. This ensures that all the functions of SICLIMAT X are available.

Engineering

The most common DESIGO RX applications are available in the form of "Typicals" (typical applications) in the SICLIMAT Engineering Manager. The relevant "Typicals" are copied into the project, after which the parameters LON-Node_ID, LON-Domain_ID and LON-Subnet_ID are set. There is no need for SNVT (data point) LON network variable bindings to the communications interface.

The DP slave address is preset to 3, and can be set with a LON service terminal. The PROFIBUS I/O area is a fixed 64 bytes. The I/O address range is set in the "Typical" header and must be the same as the range engineered in the SIMATIC Manager. The DP/LON link is integrated into the SIMATIC Manager via a PROFIBUS Device Source Data file.

On the LON bus side, the DESIGO RXT tool is used to engineer the DESIGO RX individual room controllers, download the application and commission the controllers. For engineering guidelines and a guide to the installation principles for DESIGO RX in a LON network, refer to the relevant Landis & Staefa documentation. We recommend that the LON network should be engineered as a self-contained segment with a maximum of 63 bus users.

Ordering

When ordering, please specify the quantity, product name and type code.

<i>Type</i>	<i>Order No.</i>	<i>Specification No.</i>
DP/LON link	6FL6301-1BA10	28/400401

Ordering information for DESIGO RX can be found on the L&S intranet.

System requirements

SICLIMAT X Version 3.1 or higher with the Service Pack "Typicals DESIGO RX–DP/LON"

Technical data

	Type	DP/LON link
Connections/interfaces	Supply voltage	18...36V DC
	Operating current	60mA
	Transceiver	FTT10A, TP-FX78
	Neuron chip	3150 / 10 MHz
Mounting	Mounting method	DIN rail
Dimensions/weight	Dimensions (H x W x D)	172 x 80 x 43mm
	Weight	Approx. 200 g
Product safety	Meets the requirements for CE marking in	EN50081-2: 1993/EN50082-2 1995
	Protection standard	IP 40