

INBLOX[®]

Intelligent modulare diagnostic repeater



REPEATER
DIAGNOSIS
WEB-BASED

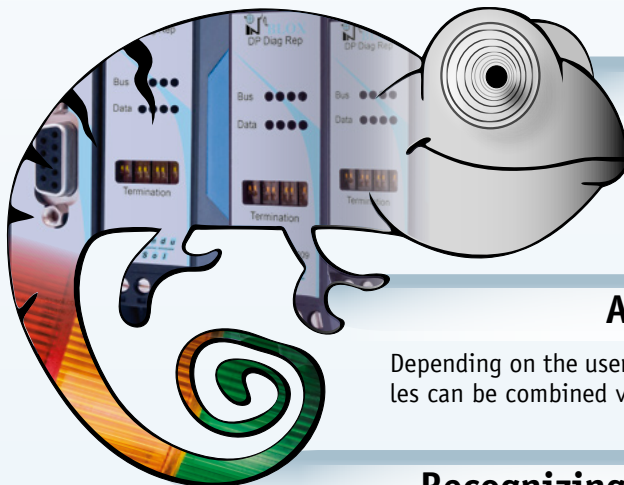
**We structure
your network**



The intelligent repeater

Intelligent modular diagnostic repeater

The product series INBLOX® is an intelligent modular automation component, which combines the features of a repeater and a permanent PROFIBUS analysis. A maximum amount of 25 electrically isolated fieldbus segments are possible by stringing the modules together. Additionally to the repeater feature, every segment is equipped with a diagnostic feature. Depending on the module version, an analysis of telegrams and the signal quality, and also a digital record of an oscilloscope were made automatically. Determined triggers like error frames, telegram repetitions and retries of the devices or deviations of the typical level form ensure a warning of failure. By using the intelligent head module „E-head“, the values can be adjusted by web interface, as well as displayed as a matrix or used for remote maintenance via Ethernet.



Panoramic view

INBLOX® provides a panoramic view! Small scale segments make the fieldbus system manageable. The diagnostic feature illustrates the quality of the network.

Adaptability

Depending on the user's requirements of diagnosis all modules can be combined variously.

Recognizing danger

The permanent monitoring and valuation of data ensure a warning of failure. The operation is predictable and you gain time!

Surprising adaptable – Master of versatility

The chameleon is adapted to life in trees and bushes and it is known for its ability to change colours. This enables it not only to adapt himself to his environment, but also to express his emotions. With his independent moving eyes, the chameleon has a 360 degree panoramic view and keeps its enemies in sight.



The DP basic repeater with integrated LED status channel diagnosis makes five segments in a star structure possible. By using up to five Diag Rep extension modules, in total 25 segments can be created.

Master of versatility in network

Operation web interface



Physical evaluation

Die metrological evaluation of the signal form features the quality figures of every device as a bar diagram. The determined quality limit is 2500 and should not fall below. Every bar is a reflection of the bit form, which is valued by edge steepness, level highness and transient signal response of every device. With the integrated oscilloscope feature you can detect EMC disturbances, signal form problems as well as reflections of every device.

Logical evaluation

The analysis of the telegram traffic reveals the number and kind of device-related telegram errors. In addition it is possible to trigger special events, to locate and analyse sporadic errors. Diagnosis telegrams are shown as plain text and facilitate an evaluation.

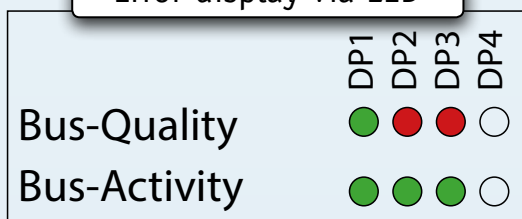
Matrix of the devices

	0	1	2	3	4
0	Device 0 Location 0	Device 1 Location 1	Device 2 Location 2	Device 3 Location 3	Device 4 Location 4
1	Device 10 Location 10	Device 11 Location 11	Device 12 Location 12	Device 13 Location 13	Device 14 Location 14
2	Device 20 Location 20	Device 21 Location 21	Device 22 Location 22	Device 23 Location 23	Device 24 Location 24

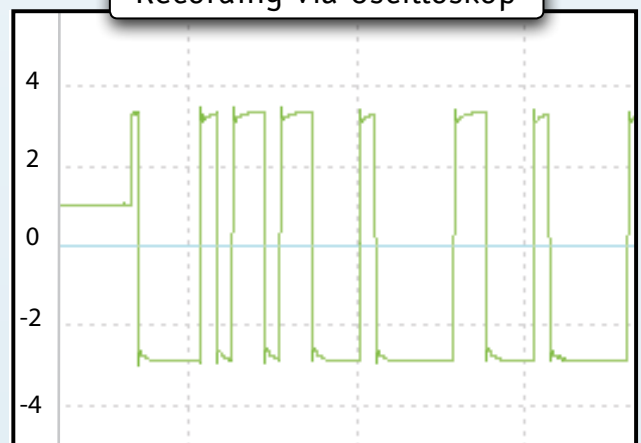
Okay
 Attention
 Failure



Error display via LED

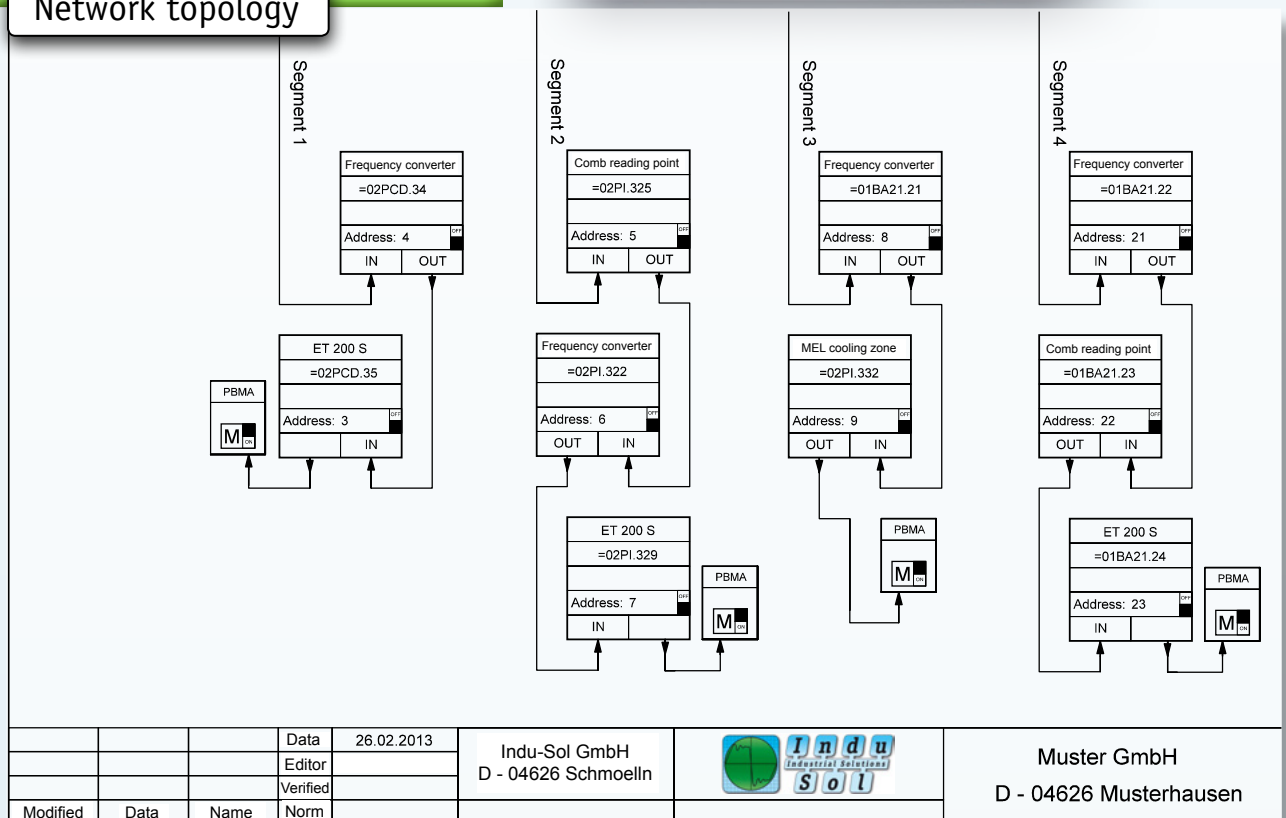


Recording via Oscilloskop





Network topology



Advantage of a multiple-repeater

- Extension or turn off of segments during operation
- No one meter problem during cascading of standard repeaters
- Errors affect just small parts of the network

- Allows stubs in PROFIBUS
- Isolates sensible or problematic areas






The network will be well arranged!

Modular brick system

Modul combination

Depending on the selection of the head module in combination with the individual extension modules, the alarm management can be configured as a simple LED-Display, a potentialfree contact via E-Mail to the point of a web based management solution.

The described combination possibilities **Basic-Line**, **Premium-Line** and **Comfort-Line** are examples, how a configuration can be realized according the individual request of comfort or the level of intelligence of the modules. All modules can be combined in the individual variation according to demand.

Head module basic repeater	E-head module web server function	Extension DP Diag Rep	Extension DP Diag+ Rep	Alarm module signal
 <ul style="list-style-type: none"> • 1x DP outlet Sub-D • 4x DP outlet terminal strip • Max. 25 segments • LED diagnostic message per segment • LED bus status update • Power supply 24V 	 <ul style="list-style-type: none"> • Integrated web server • Network scheme (Matrix) • Alarm list • Snapshots • Network protocol • SNMP-retrieval for diagnostic software PROmanage® • Diagnostic-LED • Max. 20 segments • Power supply 24 V • Ethernet connection 	 <ul style="list-style-type: none"> • 4x DP outlet terminal strip • LED diagnostic message per channel • Max. 5 diagnostic-modules per head module 	 <ul style="list-style-type: none"> • 1x outlet Sub-D • Logical and physical cable test • Quality values by a bar diagram • Oscilloscope function - evaluation of the bit-form 	 <ul style="list-style-type: none"> • 4x potential free contacts • Alarm per extension module (collective message of faults) • LED status indication • 4x inputs for confirmation

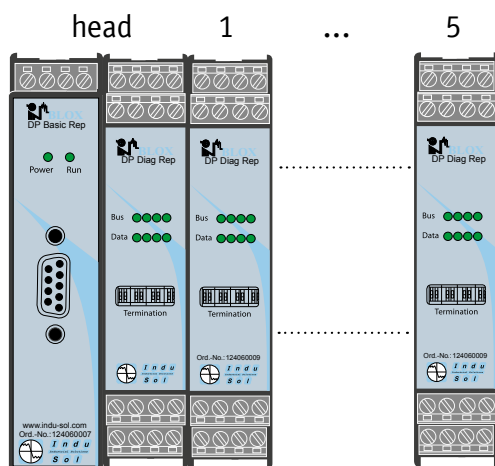
Network quality

Using the extension module **DP Diag+ Rep** a physical analysis by the evaluation of the bit form is carried out in addition to the logical diagnosis. An evaluation of the edge steepness, the level rate and the transient response of every bit is carried out and displayed as a bar diagram by the web interface. A permanent readable Q-value will be developed to make a statement according the network quality.

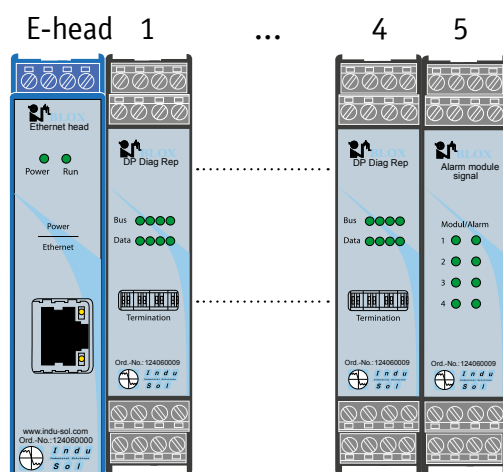
Ordering details	Art.-No.
DP basic repeater - with LED diagnosis	124060007
Ethernet head module - with web server feature	124060000
DP Diag Rep - logical telegram monitoring with E-Kopf	124060009
DP Diag+ Rep - physical and logical network management with E-head	124060010
Alarm module - alert via switching contact	124060006

Sample configuration

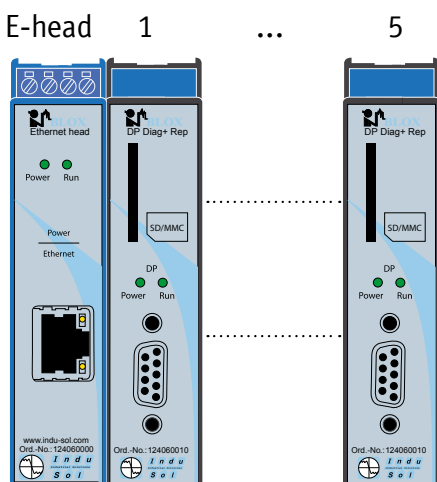
Modularer repeater BASIC



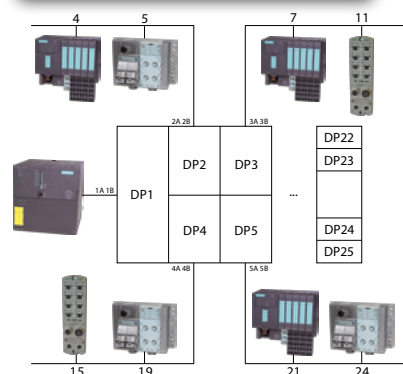
Modularer repeater PREMIUM



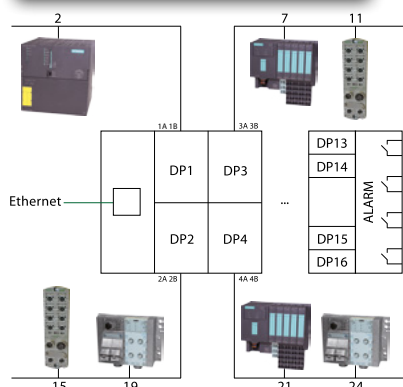
Modularer repeater COMFORT



Error display via LED



Matrix of the devices



Recording via Oscilloscope

