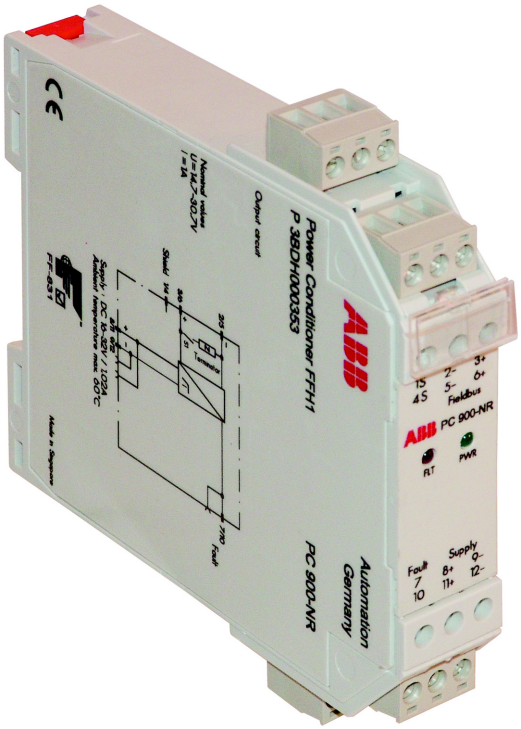
Data Sheet

Field^{IT}

PC 900-NR Power Conditioner

Features and Benefits

- Power supply of fieldbus segments according to IEC 61158-2
- High power for general purpose or intrinsically safe topologies with Field Barrier
- Supply current 1 A
- High efficiency and highest reliability due to passive power conditioning
- Novel CREST technology minimizes signal disturbances
- Certified according to FF-831 specification
- Separate fault signal output
- Integrated, switchable fieldbus terminator
- Removable terminals and Power Rail
- Redundant connection of bulk power supply possible



Function

The Power Conditioner PC 900-NR feeds fieldbus participants connected to a FOUNDATION Fieldbus H1 segment in accordance with IEC 61158-2.

Functionality

General

The Power Conditioner PC 900-NR feeds fieldbus participants connected to a FOUNDATION Fieldbus H1 segment in accordance with IEC 61158-2. It offers the necessary impedance matching for coupling 1 A of supply current onto the 2-wire bus line.

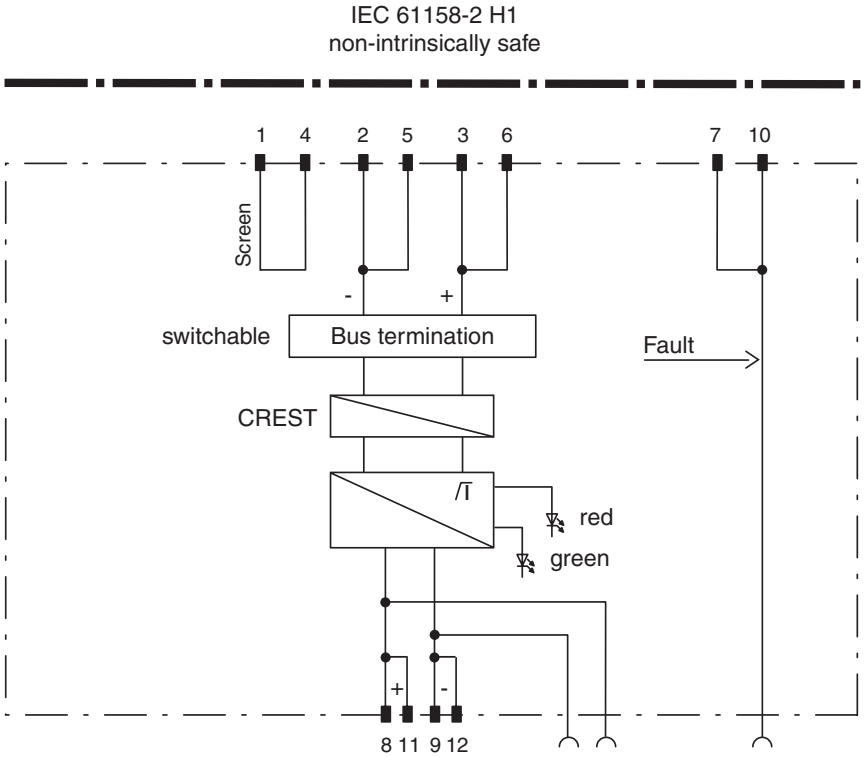
The novel CREST technology optimizes the fieldbus communication's availability. Furthermore, the Power Conditioner comprises a built-in, switchable fieldbus termination resistor, two LEDs for indicating power-on and faults as well as removable terminals for ease of installation.

Redundant power supplies, for one or more fieldbus segments, can be built up using the Power Rail. By adequate Power Feed Modules, redundant supply is possible via one or two external power supplies.

In the event of a fault, a message will be transmitted via the terminals or, as a collective fault message, via Power Rail and Power Feed Modules to the host system.

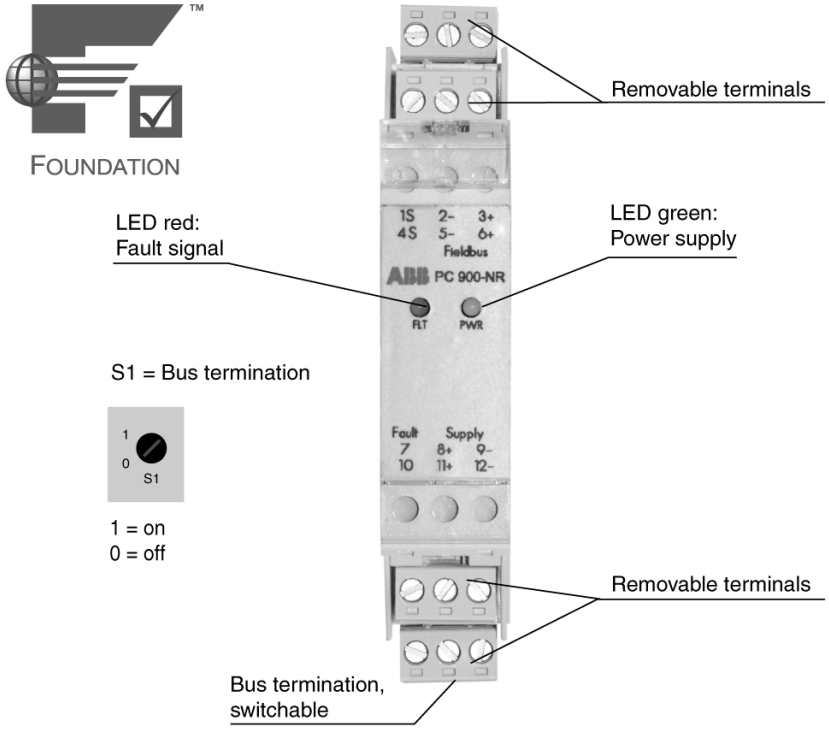
For the interconnection of fieldbus devices (with consideration of the technical data of the PC 900-NR) the FOUNDATION Fieldbus Layout Tool DTE100, 3KDE633517 is available (price list of the product line 63, Fieldbus and Tools).

Connection



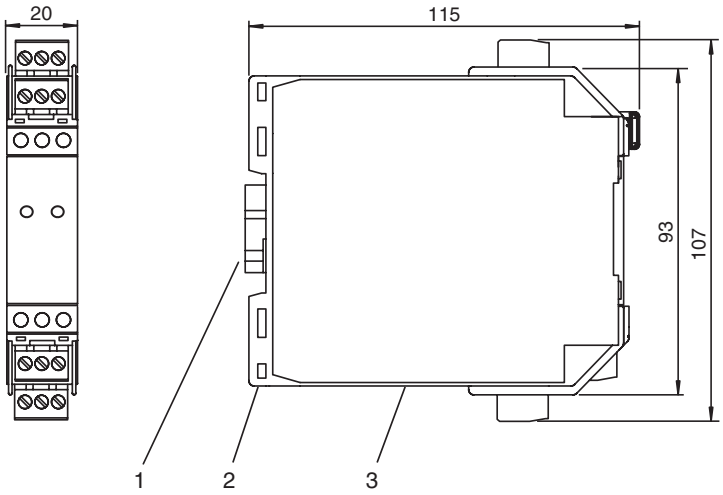
Indicating and operating elements

Front view



LED green	LED red	Fault signal output	Conditions
ON	OFF	OFF	supply voltage > 14.4 V DC typ.
OFF	OFF	ON	supply voltage < 13.2 V DC typ.
ON or OFF	2 Hz flashing	ON	Overload or short circuit, load current > 1.15 A typ.

Dimensions



Description:

1 Protective cap, remove for power supply via Power Rail
2 Extendable lugs
3 Bus termination, switchable

Technical Data

Supply	Connection	Power Rail or terminals 8, 11+, 9, 12-
	Rated voltage	16 ... 32 V DC
	Rated current	1.02 A
	Power loss	16 ... 32 V at 1 A: ≤1.86 W; typ. 1.6 W
Fieldbus interface	Field-side	
	Connection	terminals 3, 6+; 2, 5-; 1, 4 screen connection
	Rated voltage	14.7 ... 30.7 V DC
	Rated current	1 A
	Terminating impedance	100 Ω switchable off and on via rotary switch: 1 -> on; 0 -> off
Error output	Connection	Power Rail or terminals 7, 10
	Rated voltage	32 V DC
	Rated current	10 mA
	Voltage drop	1.2 V at 10 mA
Directive conformity	Electromagnetic compatibility	
	Directive 89/336/EC	EN 61326
Conformity	Electromagnetic compatibility	NAMUR NE 21
	Protection degree	IEC/EN 60529
	Fieldbus standard	IEC 61158-2, ISA S 50.02 part 2
	Climatic conditions	DIN IEC 721
Ambient conditions	Ambient temperature	-20 ... 60 °C (253 ... 333 K)
	Storage temperature	-40 ... 85 °C (233 ... 358 K)
	Relative humidity	< 95 % non-condensing
	Degree of soiling	max. 2, according to IEC 60664
Mechanical specifications	Connection type	terminals
	Core cross-section	up to 2.5 mm^2
	Housing	20 mm x 115 mm x 107 mm
	Protection degree	IP20
	Mass	approx. 100 g
	Mounting	DIN rail mounting

For more information on Field^{IT}, contact us at fieldbus@de.abb.com
For the latest information on ABB visit us on the World Wide Web at http://www.abb.com

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