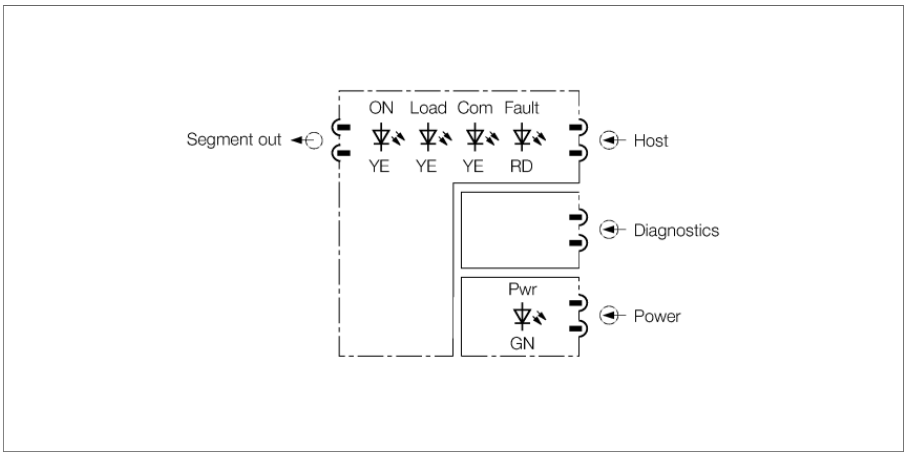
Power Supply Module FOUNDATION Fieldbus DPC-49-IPS1



The DPC system (Diagnostic Power Conditioner) is a power supply system for the installation of FOUNDATION™ fieldbus H1 segments. It provides extensive diagnostic options for monitoring FOUNDATION™ fieldbus segments and thus supports plantwide asset management.

A DPC system consists of one or more module racks, each of which can take up to eight DPC-49-IPS1 power supply modules and one DPC-49-ADU or DPC-49-DU diagnostic module. Up to four H1 segments per module rack can be operated and monitored redundantly in the FOUNDATION™ fieldbus network. The diagnostic data of the H1 segments can be transmitted via the DPC-49-HSEFD/24VDC HSE field device to the higher level Asset Management System (only in conjunction with the diagnostic module DPC-49-ADU).

The power supply module provides up to 30 VDC and 800 mA for the installation of an H1 segment. The network topology can be extended to 1900 m, due to the high output power.

If two power supply modules are connected, the segment can be operated redundantly. The modules can thus be plugged and unplugged during operation (hot-swappable in run).

Due to complete galvanic isolation,

- H1 to H1,
- H1 to internal supply,
- H1 to the diagnostic module ,
- H1 to HSE diagnostic bus,

formation of parasitic voltages is avoided and error-free communication is guaranteed.

Local comissioning and diagnostics are supported by the following LED indications:

Pwr: green: Operational readiness
ON/OFF: yellow: Output ON:
Load: yellow: Consumer (field device) detected at segment:
Com: yellow: Communication display
Fault: red: Short-circuit message

- Supply of one FOUNDATION fieldbus H1 segment
- Output current: 800 mA
- Output voltage: 28…30 V DC
- Local diagnostics via LEDs
- Complete galvanic isolation

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Type	DPC-49-IPS1
ID	6882023

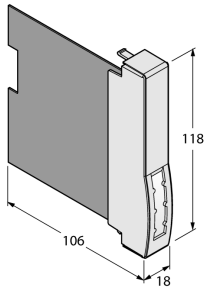
Supply voltage	via the backplane
Current consumption	0.8 … 1.7 A
Galvanic isolation	All-round galvanic separation, test voltage 500 VAC

Output circuits	Field
Output current	≤ 800 mA
Output voltage	> 28 VDC
Short-circuit protection	≤ 850 mA
Efficiency	80 %
Output circuits	HOST
Output current	< 30 mA
Output voltage	27 VDC

Displays/Operating elements	
Operational readiness	1 × green
Output active	1 x yellow
Output current	1 x yellow
Short-circuit message	1 x red
Bus communication	1 x yellow

Protection class	IP20
MTTF	57 years acc. to SN 29500 (Ed. 99) 40 °C
Ambient temperature	-20…+60 °C
Relative humidity	≤ 95 % at 55 °C acc. to EN 60069-2
Housing material	Plastic, Yellow
Dimensions	18 x 118 x 103 mm

Dimensions



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