FO converters - PSI-MOS-DNET/FO 850 E - 2313999

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Fiber optic converter with integrated optical diagnostics, for DeviceNet™, CAN, CANopen® up to 1000 kbps, termination device, interfaces: 1 x CAN, 1 x Alarm, 1 x FO (B-FOC), 850 nm, for HCS/ fiberglass (multi-mode)

Product Features

- Data rates of up to 1000 kbps
- Supply voltage and data signals routed through via DIN rail connectors
- Can be combined with the PSI copper repeater in a modular way using DIN rail connectors
- Automatic data rate detection or fixed data rate setting via DIP switches
- Integrated optical diagnostics for continuous monitoring of fiber optic paths
- High-quality electrical isolation between all interfaces (DeviceNet // fiber optic ports // power supply // DIN rail connector)
- Connections can be plugged in using a COMBICON screw terminal block
- Redundant power supply possible by means of optional system power supply unit
- Approved for use in zone 2
- Intrinsically safe fiber optic interface (Ex op is) for direct connection to devices in zone 1
- Floating switch contact for leading alarm generation in relation to critical fiber optic paths

Key commercial data

package_quantity	1
GTIN	4046356513807

Technical data

Note:

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area

Dimensions

Width	35 mm
Height	102 mm
Depth	119 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	30 % ... 95 % (no condensation)

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Technical data

Ambient conditions

Altitude	5000 m (For restrictions see manufacturer's declaration)
Degree of protection	IP20
Noise immunity	EN 61000-6-2

Serial interface

Interface 1	CAN interface, in accordance with ISO/IS 11898 for DeviceNet, CAN, CANopen
Operating mode	Semi-duplex
No. of channels	2 (CAN_High / CAN_Low)
Connection method	COMBICON plug-in screw terminal block
File format/coding	Bit stuffing, NRZ
Transmission medium	2-wire twisted pair, shielded
Transmission method	CSMA/CA
Transmission length	≤ 5000 m (Dependent on the data rate and the protocol used)
Number of INTERBUS devices	≤ 64 (per potential segment)
Number of INTERBUS devices	≤ 63 (DeviceNet™, can be addressed logically)
Number of INTERBUS devices	≤ 128 (CANopen®, can be addressed logically)
Termination resistor	124 Ω (Integrated and ready to be switched)
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section stranded min.	0.2 mm²
Conductor cross section stranded max.	2.5 mm²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	14

Optical interface FO

Transmit capacity, minimum	-13.5 dBm (50/125 µm)
Transmit capacity, minimum	-12.3 dBm (62,5/125 µm)
Transmit capacity, minimum	-10.2 dBm (200/230 µm)
Minimum receiver sensitivity	-28.1 dBm (50/125 µm)
Minimum receiver sensitivity	-28.1 dBm (62,5/125 µm)
Minimum receiver sensitivity	-28.1 dBm (200/230 µm)
Wavelength	850 nm
Transmission length incl. 3 dB system reserve	1800 m (with F-K 200/230 8 dB/km with quick mounting connector)
Transmission length incl. 3 dB system reserve	4600 m (with F-G 50/125 2.5 dB/km)
Transmission length incl. 3 dB system reserve	4200 m (with F-G 62,5/125 3.0 dB/km)
Transmission medium	HCS fiber
Transmission medium	Multi-mode fiberglass
Transmission protocol	Protocol transparent for CAN interface
Connection method	B-FOC (ST®)

Switching output ODL

Minimum switching voltage	11 V DC

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Switching output ODL

Maximum switching voltage	30 V DC
Limiting continuous current	500 mA

Power supply

Nominal supply voltage	24 V DC
Supply voltage range	11 V DC ... 30 V DC (via pluggable COMBICON screw terminal block)
Typical current consumption	130 mA (24 V DC)

General

Bit distortion, input	± 35 % (permitted)
Bit distortion, output	< 6.25 %
Electrical isolation	(VCC // CAN)
Test voltage data interface/power supply	1.5 kV_{rms} (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 55011
Net weight	180 g
Housing material	PA 6.6-FR
Color	green
MTBF	253 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
MTBF	38 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))
MTTF	831 Years (SN 29500 standard, temperature 25°C, operating cycle 21% (5 days a week, 8 hours a day))
MTTF	378 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25% (5 days a week, 12 hours a day))
MTTF	155 Years (SN 29500 standard, temperature 40°C, operating cycle 100% (7 days a week, 24 hours a day))
Conformance	CE-compliant
ATEX	# II (2) D [Ex op is Db] IIIC (PTB 06 ATEX 2042 U)
ATEX	# II (2) G [Ex op is Gb] IIC (PTB 06 ATEX 2042 U)
ATEX	# II 3 G Ex nA IIC T4 Gc X
UL, USA / Canada	508 listed

classifications

eCl@ss

eCl@ss 4.0	27230207
eCl@ss 4.1	27230207
eCl@ss 5.0	27230207
eCl@ss 5.1	27230207
eCl@ss 6.0	27230207
eCl@ss 7.0	27230207
eCl@ss 8.0	27230207

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classifications

ETIM

ETIM 3.0	EC000236
ETIM 4.0	EC000236
ETIM 5.0	EC001467

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	43201553

approvals

ATEX / UL Listed / cUL Listed / cULus Listed /

Approval details

ATEX

Nominal voltage UN	
Nominal current IN	
mm²/AWG/kcmil	

UL Listed

cUL Listed

cULus Listed

accessories

Data cable by the meter

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accessories

PSM-LWL-HCS-RUGGED-200/230 - 2799885

PSM-LWL-HCSO-200/230 - 2799445

PSM-LWL-GDM-RUGGED- 50/125 - 2799322

PSM-LWL-GDO- 50/125 - 2799432

SAC-5P-920/... - 1511504

Assembly tool

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accessories

PSM-HCS-KONFTOOL/B-FOC - 2708465

Measuring tools

PSM-FO-POWERMETER - 2799539

Adapter

PSM-SET-BFOC-LINK/2 - 2799429

Media converter

PSI-MOS-DNET/FO 850 T - 2313986

Screwdriver tools

SZS 0,4X2,5 VDE - 1205037

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accessories

Connector set

PSM-SET-B-FOC/4-HCS - 2708481

Power supply

MINI-SYS-PS-100-240AC/24DC/1.5 - 2866983

DIN rail connector

ME 17,5 TBUS 1,5/ 5-ST-3,81 GN - 2709561

Data cable preassembled

FL MM PATCH 1,0 LC-ST - 2989174

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accessories

FL MM PATCH 2,0 LC-ST - 2989271

FL MM PATCH 5,0 LC-ST - 2901801

FL MM PATCH 1,0 SC-ST - 2901809

FL MM PATCH 5,0 SC-ST - 2901811

FL MM PATCH 1,0 ST-ST - 2901815

FL MM PATCH 2,0 ST-ST - 2901816

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accessories

FL MM PATCH 5,0 ST-ST - 2901817

FL MM PATCH 1,0 ST-SCRJ - 2901820

FL MM PATCH 2,0 ST-SCRJ - 2901821

FL MM PATCH 5,0 ST-SCRJ - 2901822

Data plug

SUBCON-PLUS-CAN/90/PG/M12 - 2902322

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accessories

SUBCON-PLUS-CAN/90/M12 - 2902323

SUBCON-PLUS-CAN/35/PG/M12 - 2902324

SUBCON-PLUS-CAN/35/M12 - 2902325

SUBCON-PLUS-CAN/AX/M12 - 2902326

SUBCON-PLUS-CAN - 2744694

SUBCON-PLUS-CAN/PG - 2708119

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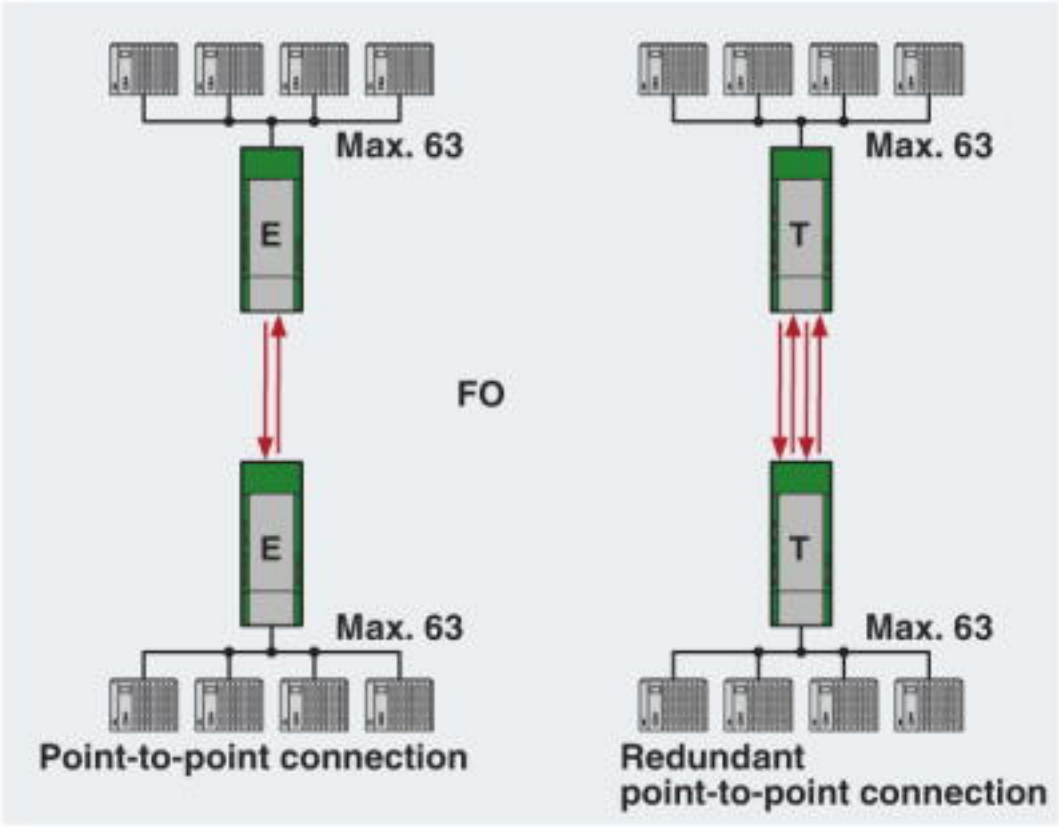
accessories

SUBCON-PLUS-CAN/AX - 2306566

Drawings

Application drawing



Point-to-point connection

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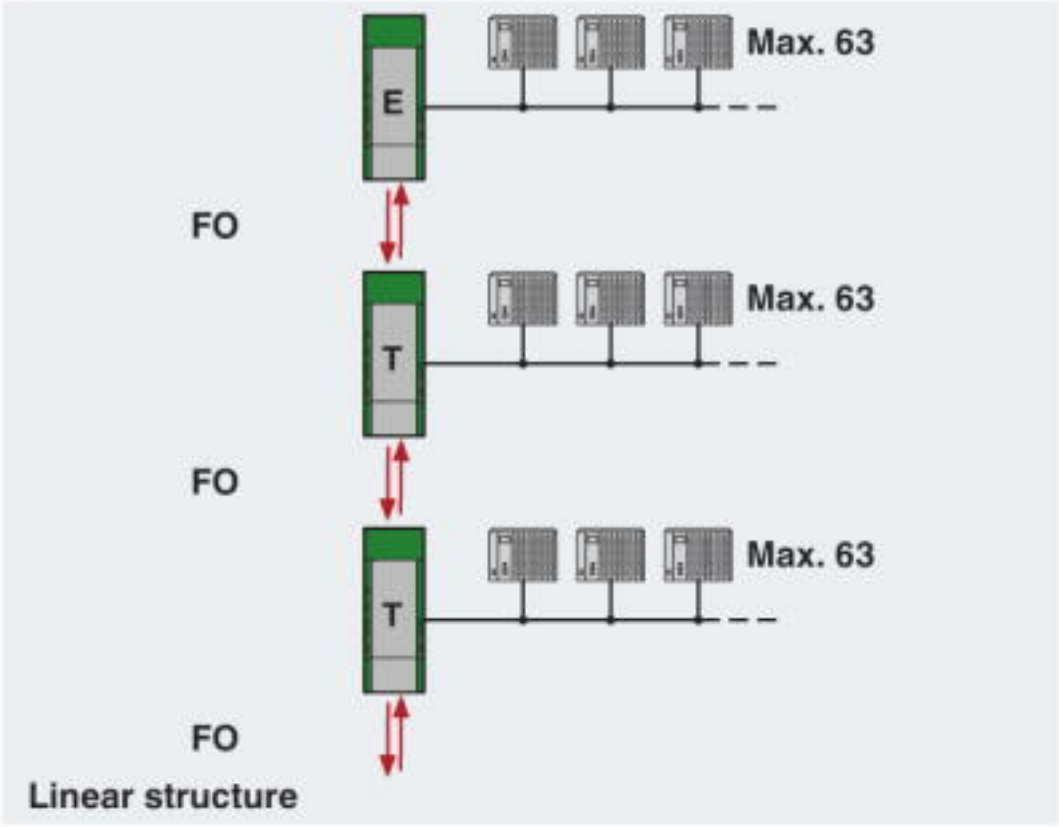
Application drawing



Line structure

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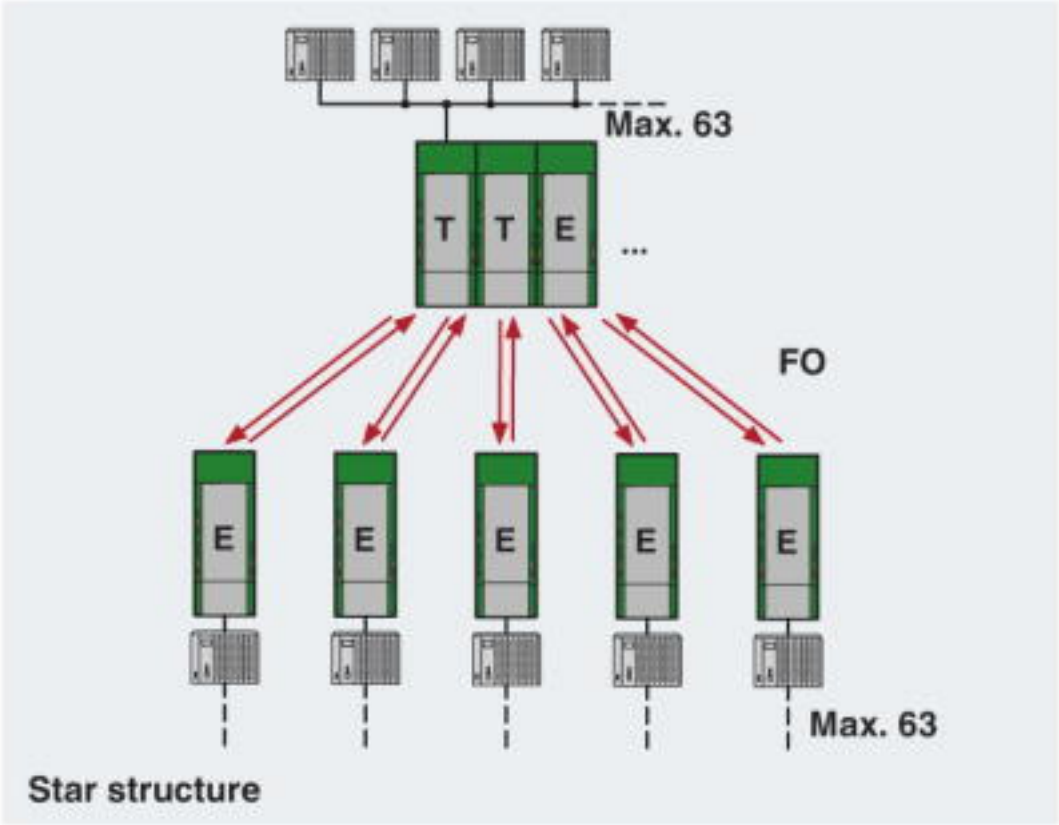
Application drawing



Star structure

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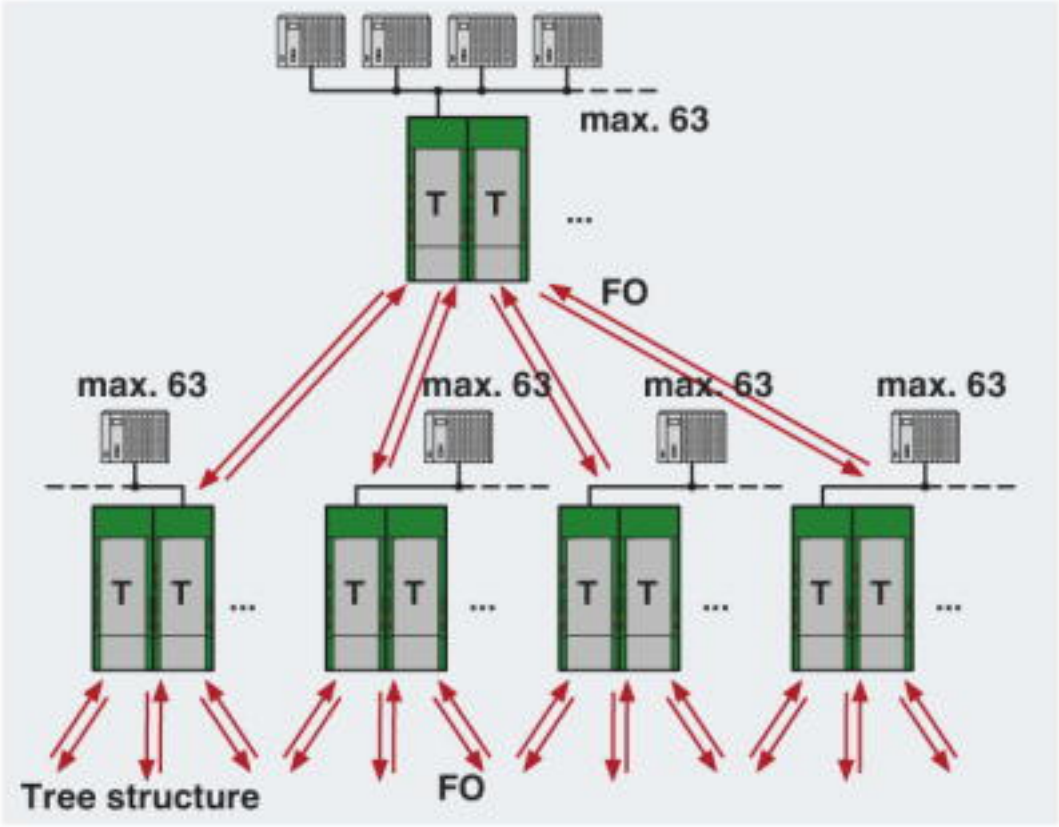
Application drawing



Tree structure

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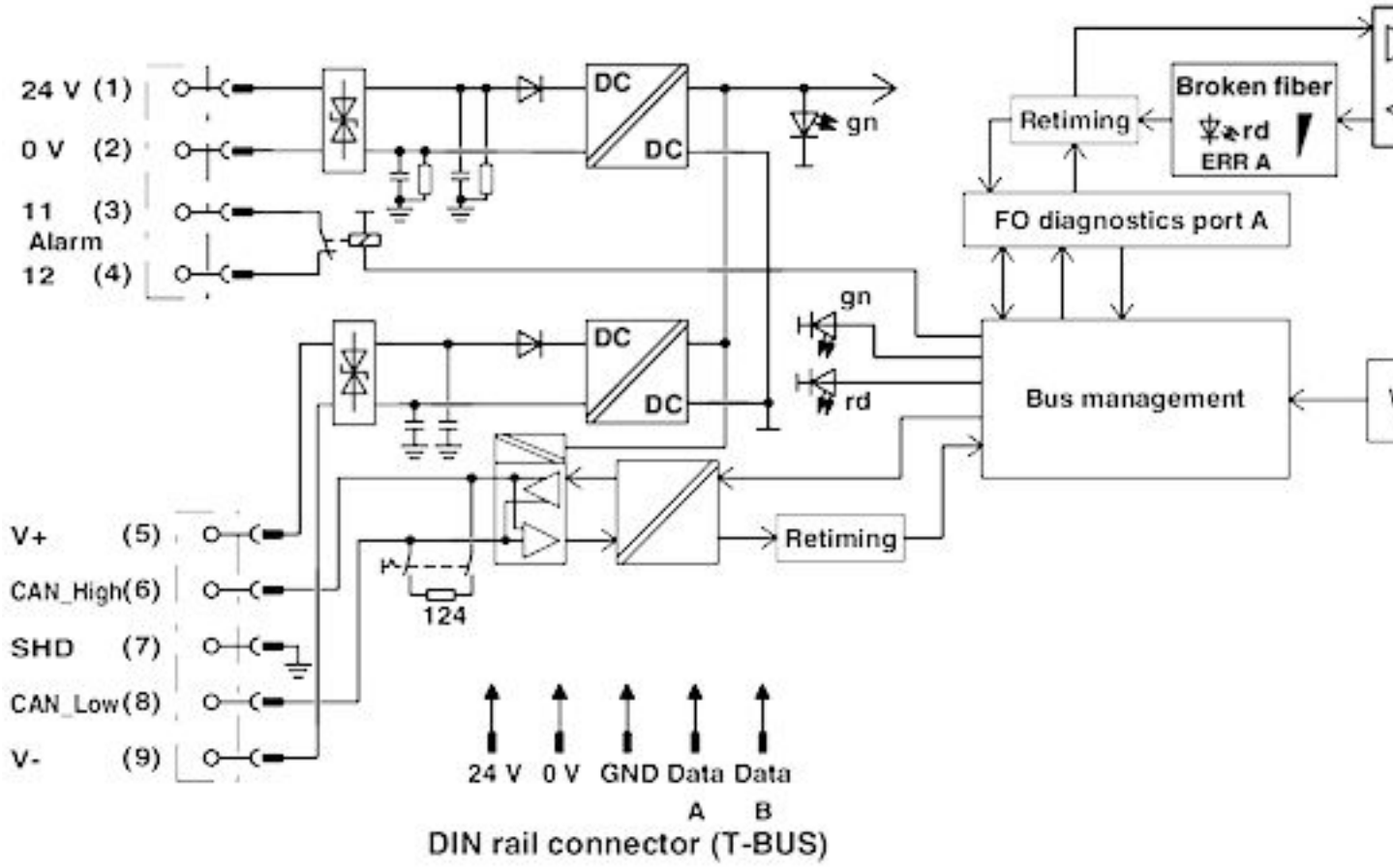
Block diagram



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Dimensioned drawing