

FO converters - PSI-MOS-RS485W2/FO 660 T - 2708300

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FO converter with integrated optical diagnosis, alarm contact, for RS-485 2-wire bus systems (SUCONET K, Modbus ...) up to 500 kbps, NRZ coding, T-coupler with two FO interfaces (FSMA), 660 nm, for polymer/HCS fiber cable

Product Features

- Can be combined with the PSI copper repeater in a modular way using DIN rail connectors
- Supply voltage and data signals routed through via DIN rail connectors
- Connections can be plugged in using a COMBICON screw terminal block
- Automatic data rate detection or fixed data rate setting via DIP switches
- High-quality electrical isolation between all interfaces (RS-485 // fiber optic ports // power supply // DIN rail connector)
- Redundant power supply possible by means of optional system power supply unit
- Approved for use in zone 2
- Floating switch contact for leading alarm generation in relation to critical fiber optic paths
- Integrated optical diagnostics for continuous monitoring of fiber optic paths
- Intrinsically safe fiber optic interface (Ex op is) for direct connection to devices in zone 1
- Suitable for data rates up to 500 kbps



Key commercial data

package_quantity	1
GTIN	4017918974008

Technical data

Note:

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

Width	35 mm
Height	99 mm
Depth	105 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 61000-6-2:2005

Serial interface

Interface 1	RS-485 interface, 2-wire
Operating mode	Semi-duplex
Connection method	Pluggable screw connection
File format/coding	UART (11/10 bit switchable; NRZ), slip-tolerant
Data direction switching	Automatic control
Transmission medium	Copper
Transmission length	≤ 1200 m (depending on the data rate, with shielded, twisted data cable)
Termination resistor	390 Ω
Termination resistor	220 Ω
Termination resistor	390 Ω (Can be connected)
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	14
Serial transmission speed	4,8/ 9,6/ 19,2/ 38,4/ 57,6/ 75/ 93,75/ 115,2/ 136/ 187,5/ 375/ 500

Optical interface FO

Transmit capacity, minimum	-5.3 dBm (980/1000 μm)
Transmit capacity, minimum	-16 dBm (200/230 μm)
Minimum receiver sensitivity	-30.2 dBm
Maximum receiver sensitivity	-3 dBm (980/1000 μm)
Wavelength	660 nm
Transmission length incl. 3 dB system reserve	100 m (With F-P 980/1000 230 dB/km with quick mounting connector)
Transmission length incl. 3 dB system reserve	800 m (With F-K 200/230 10 dB/km with quick mounting connector)
Transmission medium	Polymer fiber
Transmission protocol	Protocol-transparent to the RS-485 interface
Connection method	F-SMA

Fault warning output

Maximum switching voltage	60 V DC
Maximum switching voltage	42 V AC
Limiting continuous current	0.46 A

Power supply

Supply voltage range	18 V DC ... 30 V DC
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Power supply

Max. current consumption	130 mA
Typical current consumption	100 mA (24 V DC)
Connection method	COMBICON plug-in screw terminal block

General

Bit delay	≤ 1 Bit
Bit distortion, input	± 35 % (permitted)
Bit distortion, output	< 6.25 %
Electrical isolation	(VCC // RS-485)
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	200 g
Housing material	PA 6.6-FR
Color	green
MTBF	220 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
MTBF	44 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))
Conformance	CE-compliant
ATEX	# II 3 G Ex nAC IIC T4 X
ATEX	# II (2) GD [Ex op is] IIC (PTB 06 ATEX 2042 U)
UL, USA / Canada	Class I, Zone 2, AEx nc IIC T5
UL, USA / Canada	Class I, zone 2, Ex nC nL IIC T5 X
UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D

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

ETIM

ETIM 2.0	EC001423
ETIM 3.0	EC001423
ETIM 4.0	EC001423
ETIM 5.0	EC001423

UNSPSC

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classifications

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 / UL Recognized / cUL Recognized / cULus Recognized /

Approval details

ATEX	
Nominal voltage UN	
Nominal current IN	
mm ² /AWG/kcmil	

UL Listed

cUL Listed


cULus Listed

UL Recognized

cUL Recognized

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approvals

cULus Recognized  US

accessories

Connector set

PSM-SET-FSMA/4-KT - 2799720



Data cable by the meter

PSM-LWL-KDHEAVY-980/1000 - 2744319



PSM-LWL-RUGGED-980/1000 - 2744322



PSM-LWL-RUGGED-FLEX-980/1000 - 2744335



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accessories

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



PSM-LWL-HCSO-200/230 - 2799445



PSM-CABLE-PROFIB/FC - 2744652



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



Assembly tool

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accessories

PSM-POF-KONFTOOL - 2744131



PSM-HCS-KONFTOOL - 2799526



PSM-SET-FSMA-POLISH - 2799348



Measuring tools

PSM-FO-POWERMETER - 2799539



Adapter

PSM-SET-FSMA-LINK/2 - 2799416



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accessories

PSM PTK - 2760623



PSM PTK-4 - 2799364



Screwdriver tools

SZS 0,4X2,5 VDE - 1205037



Stripping tool

PSM-STRIP-FC/PROFIB - 2744623



Interface converter

PSI-REP-RS485W2 - 2313096



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accessories

PSM-ME-RS485/RS485-P - 2744429



Data plug

SUBCON-PLUS M1 - 2761826



SUBCON-PLUS F1 - 2744267



SUBCON-PLUS M2 - 2761839



SUBCON-PLUS F2 - 2799490



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accessories

SUBCON-PLUS F5 - 2744102



SUBCON-PLUS 9/M - 2744018



SUBCON-PLUS 9/F - 2744241



Terminal resistor

PSI-TERMINATOR-PB - 2313944



Media converter

PSI-MOS-RS485W2/FO 660 E - 2708313



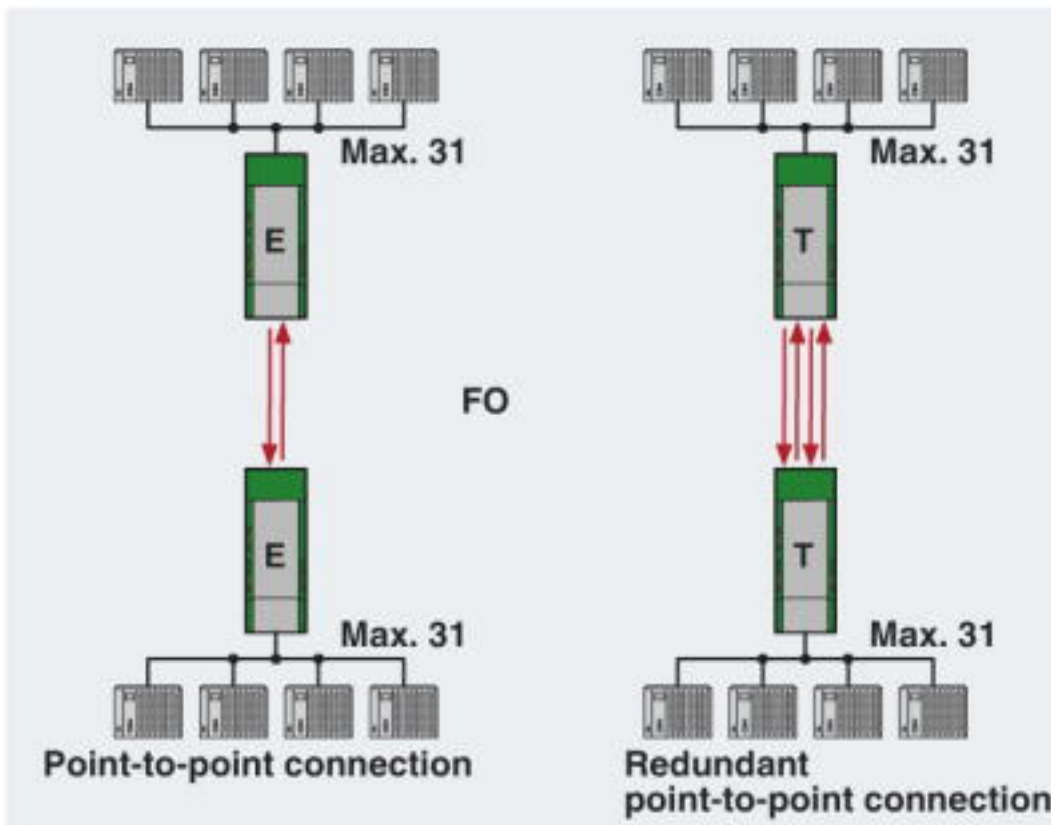
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accessories

ME 17,5 TBUS 1,5/PP000-3,81 BK - 2890014

Drawings

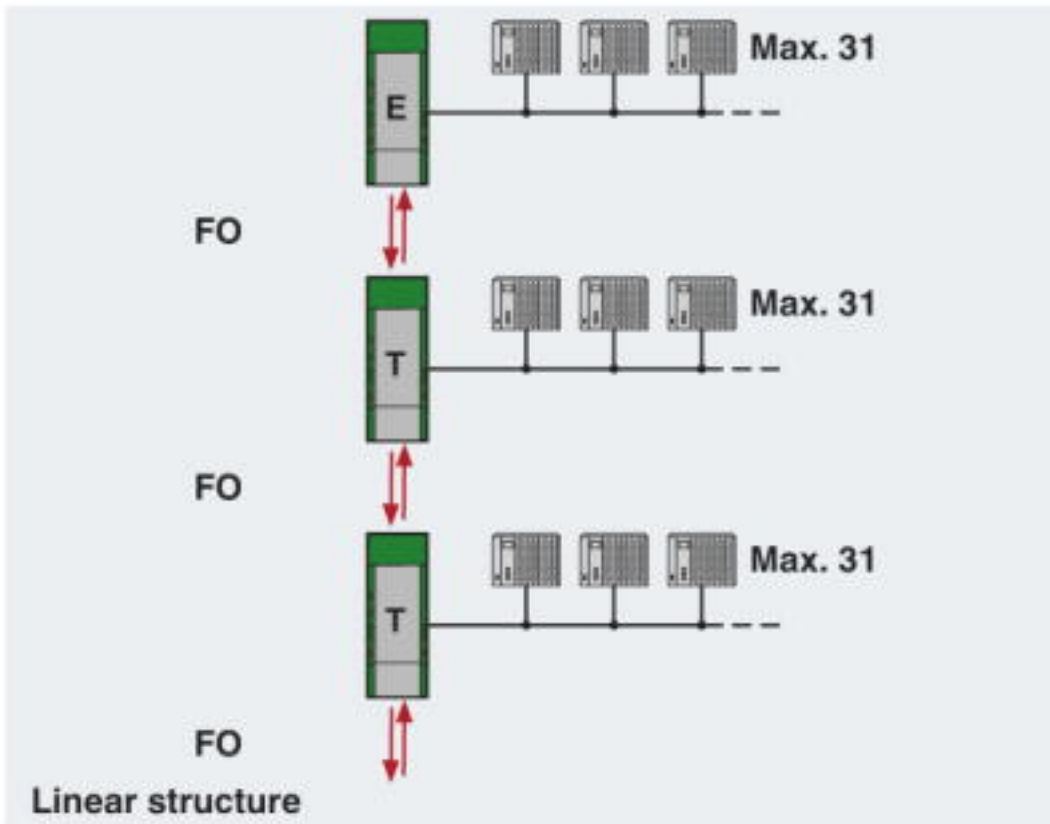
Application drawing



Redundant point-to-point connection

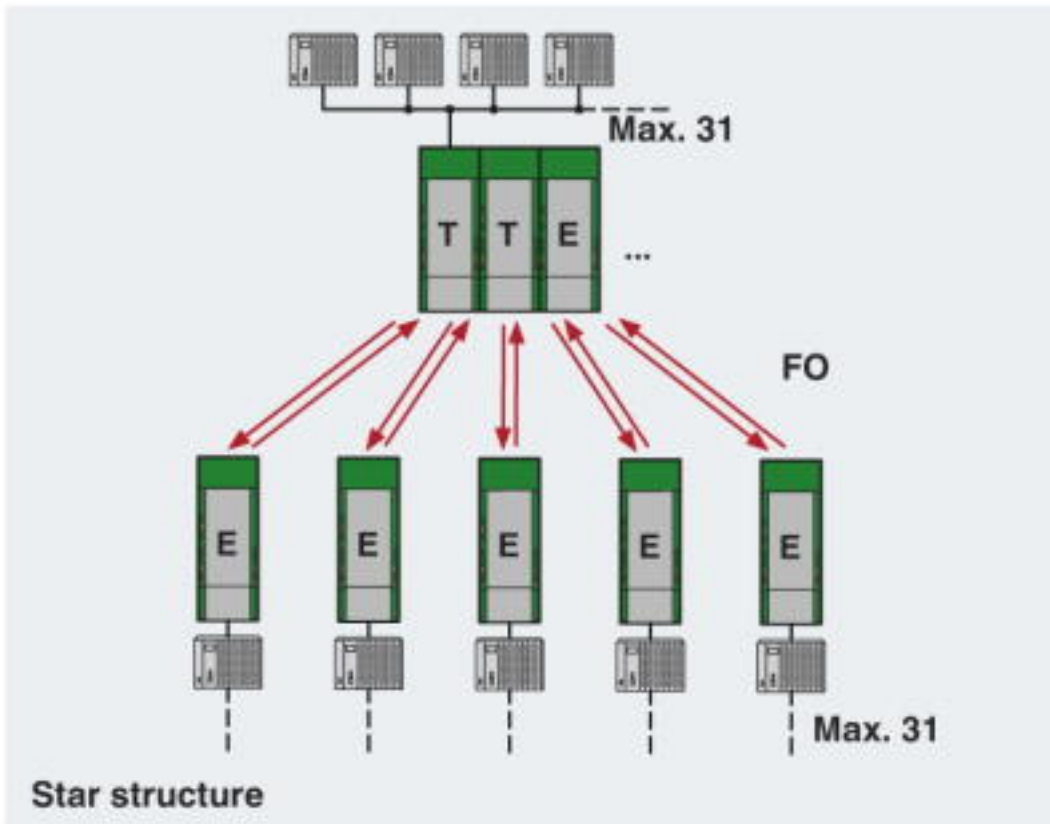
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Application drawing



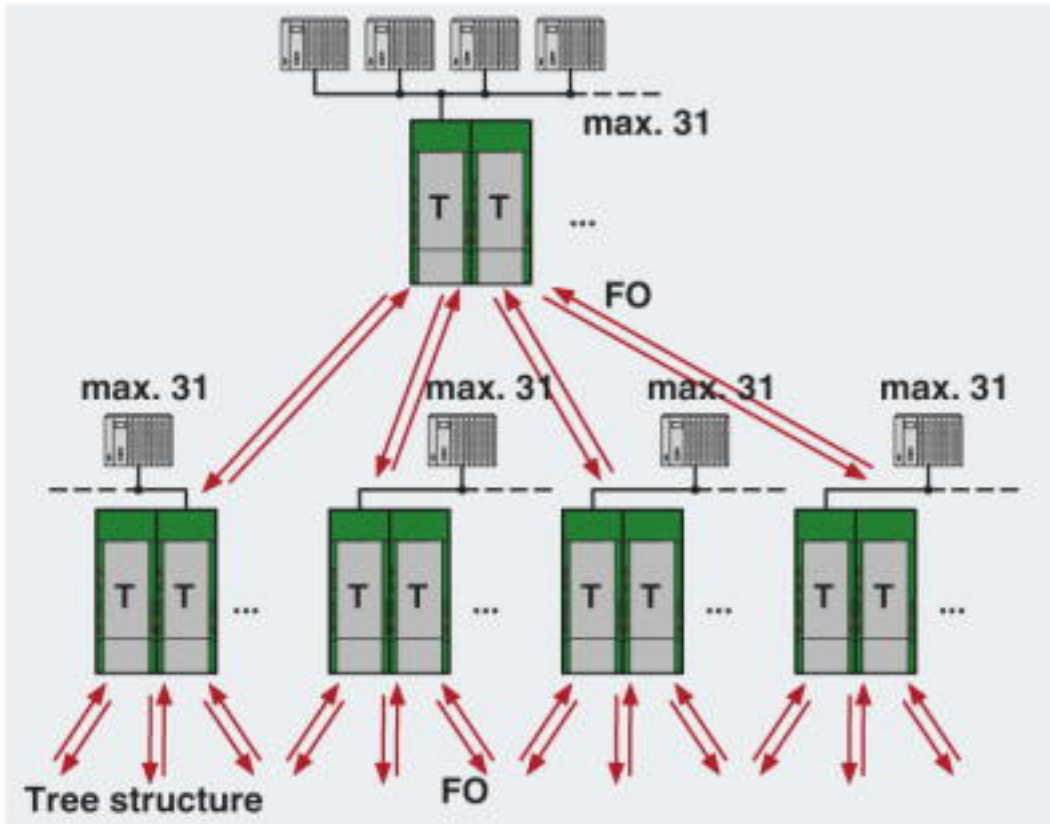
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Application drawing



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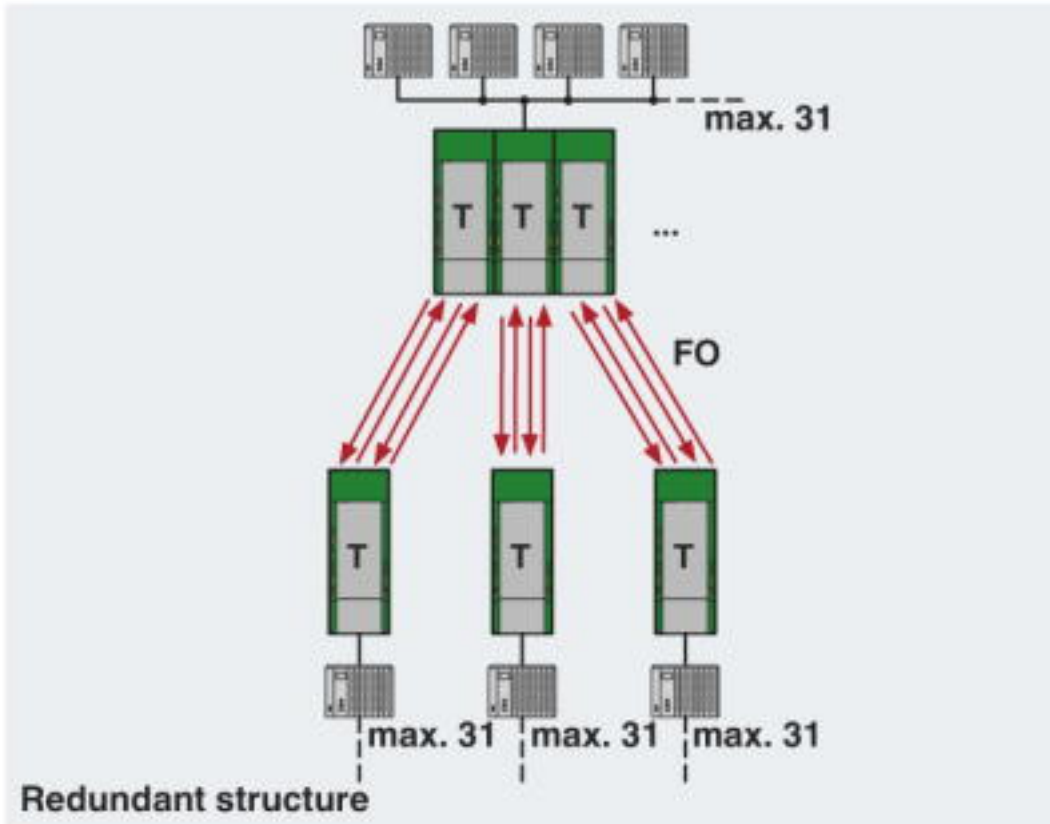
Application drawing



Redundant structure

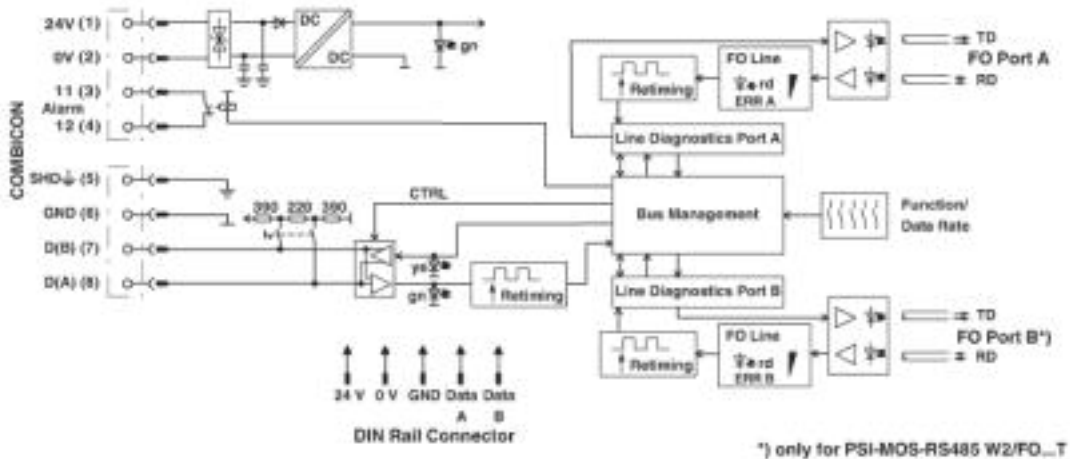
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Application drawing



Tree structure

Block diagram



*) only with PSI-MOS.../FO...T