

2U DIN-RAIL

2 Line Cards

AC/DC Power

FlexDSL MiniFlex Dual Unit



Features

- Robust DIN-Rail Metal Enclosure
- Degree of Protection is IP 30
- For two Line Cards
- 24/48/60VDC or 110/230VAC Power Supply
- Alarm Outputs (urgent/non urgent)
- Low Power Consumption
- Smallest Size
- Industrial Temperature Range

The industrial MiniFlex product family offers a broad range of products connecting any kind of interface to Ethernet. Currently the following interfaces are available:

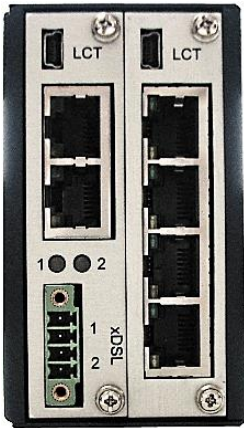
- 2x SHDSL.bis (ITU-T G.991.2 & ETS TS 101524, TCPAM16/32) with extended TC-PAM4/8/64/128 line coding
- 2x SFP Cages for standard Fiber Interfaces 100Base-FX
- 1x Universal Serial Interface RS-232/422/485
- 4x Serial Interface RS-232
- 1x Power over Ethernet, 15 Watts PSE
- 4x 10/100Base-T Ethernet Layer 2 Managed Switch
- 4x E1 Interfaces (G.703/704)
- 4x Input and 4x Output (available 2016)
- 2x FXO or 2x FXS or 2x Voice with E&M (available 2016)

With the MiniFlex Dual Unit Din-Rail mini-rack you can combine all these different interfaces for a high integrated solution according your needs. The Dual Unit has already integrated a DC or AC power supply as well as an alarm interface (urgent and not urgent). The two included line cards are connected through the backplane by an Ethernet interface.

The MiniFlex Dual Unit is based on industrial components and manufactured according to highest quality standards providing additional value due to the extended temperature ranges and higher reliability. The combination of comprehensive functions providing maximum flexibility together with the higher quality makes it the perfect choice for all your industrial communication needs.



Some Possible Units for Applications



2x SHDSL.bis (TC-PAM4..128)
6x Ethernet (10/100BaseT)



2x SHDSL.bis (TC-PAM4..128)
2x Ethernet (10/100BaseT)
4x RS-232 (V.24/28)



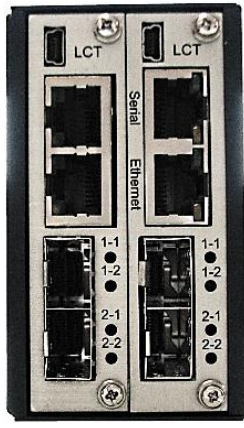
2x SHDSL.bis (TC-PAM4..128)
2x Ethernet (10/100BaseT)
4x E1 (G.703/704)



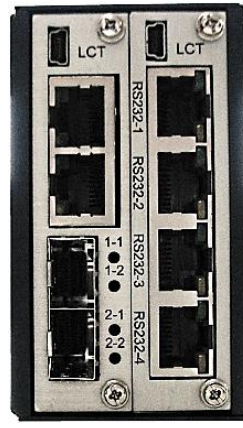
2x SHDSL.bis (TC-PAM4..128)
3x Ethernet (10/100BaseT)
1x RS-232/422/485
2x SFP Fiber (100Base-FX)



2x SHDSL.bis (TC-PAM4..128)
2x Ethernet (10/100BaseT)
1x Ethernet&PoE (10/100BaseT)



3x Ethernet (10/100BaseT)
1x RS-232/422/485
4x SFP Fiber (100Base-FX)



2x Ethernet (10/100BaseT)
4x RS-232 (V.24/28)
2x SFP Fiber (100Base-FX)



4x SHDSL.bis (TC-PAM4..128)
4x Ethernet (10/100BaseT)

Connector Description

Alarm Interface Technical Specification

Specification	Isolated Relay Output
Load	1A @ 24VDC, 0.5A @ 125VAC
Max. Operation Voltage	60VDC, 125VAC
Max. Operation Current	1A
Max. Switch Capacity	62VA, 30W
Connector Type	Phoenix Mini Combicom MC 1,5/6-G-3,5 (female), 6 pins

Matching Type for the cable
FK-MCP 1,5/ 6-ST-3,5
For AWG 16-28, Area 0.08–1.5 mm² or Diameter 0.32-1.4 mm
MC 1,5/ 6-ST-3,5
For AWG 16-28, Area 0.08–1.5 mm² or Diameter 0.32-1.4 mm

Alarm Connector Specification

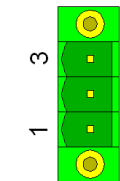
Pin No	Description
1	Non Urgent Alarm, Common Contact
2	Non Urgent Alarm, Normally Closed
3	Non Urgent Alarm, Normally Open
4	Urgent Alarm, Common Contact
5	Urgent Alarm, Normally Closed
6	Urgent Alarm, Normally Open



Power Supply Technical Specification

Specification	ETSI ETS 300 132-2
Voltage (24V model)	18-72VDC local power
Voltage (230V model)	85-264VAC, 120-370VDC local power
Connector Type	Phoenix Combicom MSTB 2,5/ 3-GF-5,08(male)
Power Consumption	< 20 W, depending on line cards (without PoE) < 35 W, if using PoE as line card
Matching Type for the cable	FKCT 2,5/ 3-STF-5.08 For AWG 12-24, Area 0.2–2.5 mm ² or Diameter 0.5-1.75 mm

Power Supply Connector Specification

	Pin No	Description
	1	Negative power terminal or N (Neutral power terminal)
	2	Protection ground
	3	Positive power terminal or L (Life power terminal)



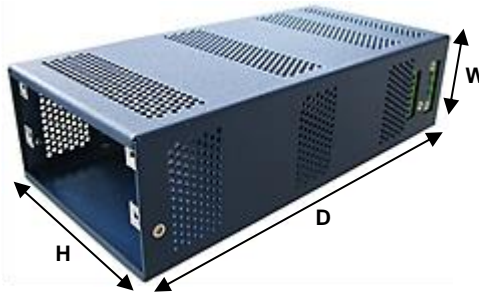
Environment, EMC and Safety

Storage:	ETS 300 019-1-1 Class 1.2	(-25°C ... +55°C)
Transportation:	ETS 300 019-1-2 Class 2.3	(-40°C ... +70°C)
Operation:	ETS 300 019-1-3 Class 3.2	(-40°C ... +70°C)
	ETS 300 019-1-3 Class 3.4	When inside an outdoor rack

Standards:	EN 300386 V1.6.1:2012	EN 61000-4-2:2009	EN 61000-4-5:2014
	EN 50121-4:2006/AC:2008	EN 61000-4-3:2006	EN 61000-4-6:2014
	EN 60950-1:2014	EN 61000-4-3/A1:2008	
	EN 55022:2010, Class B	EN 61000-4-3/A2:2010	
	EN 55024:2010	EN 61000-4-4:2012	

Physical Dimensions and Weight

Dimension:
50(W)x180(D)x87(H) mm
50(W)x190(D)x87(H) mm with Clip



Weight without Line Cards < 0.53kg

Available Models

Ordering Code	Connectors	Power Supply	Attention!
MF-DU-RAIL-2U2S-24V, V1	Power & Alarm	18-72VDC	
MF-DU-RAIL-2U2S-230V, V1	Power & Alarm	110/230VAC	PoE Line Card does not work
MF-DU-RAIL-2U2S-12V, V1	Power & Alarm	9-36VDC	PoE Line Card does not work