



Data Diodes Rugged

Fibersystem Data Diodes Rugged are designed to operate in extremely harsh environments and conditions.

Enables unidirectional transfer of data over fibre cable between two networks with hardware separation to guarantee security.

Fibersystem Data Diodes advantages

- One-way connection between two networks (also known as Simplex)
- Based on hardware, no extra software needed. This completely eliminates the risk of data flowing in false direction
- Fibre optical links for galvanic separation between networks
- Data will be forwarded transparently
- No extra software needed when using one way compatible protocols, such as: UDP stream/broadcast, Syslog, NTP, SNMP traps

Versions of Data Diodes Rugged

- 100 Mbps or 1 Gbps
- TEMPEST Level A and RÖS U1
- Other versions, see separate Datasheet Data Diodes 50-800 System

Accessories

- 60-00-7113 Adapter plate for 19 inch rack (a)
- 60-00-7421 Mounting Bracket (4 pcs with screws) (b)
- 60-00-7233 1 HU Mounting Bracket (one pair with screws) (c)
- 60-00-7114 Adapter plate for other Rugged devices (d)



(a)



(b)



(c)



(d)

Features Data Diodes Rugged

- **Low pressure operation** according to MIL-STD 810G test method 500.5 Procedure-I type B air transport storage and for operation procedure –II type a)
- **High temperature operation** according to MIL-STD 810G test method 501.5 Procedure -I (operation) level Hot dry +70°C and procedure-III (storage) Hot/dry (+71°C)
- **Low temperature operation** according to MIL-STD 810G test method 502.5 Procedure -I (Storage) Cold (C2) -46°C and procedure -II(operation) Cold (C2) -40°C
- **Rain operation** according to MIL-STD 810G test method 506.5 Rain 506.4-I Outdoor, -II indoor with drop
- **Humidity operation** according to MIL-STD 810G test method 507.4 procedure -I High RH (B2) 6 cycles
- **Salt fog operation** according to MIL-STD810G test method 509.5 with 5 % concentration for 7 days
- **Vibrations operation** according to MIL-STD 810G test method 514.5 procedure-I and -II Operation category 14 and 20; transport category 4,5 and 10. (Shock 40 g @ 11 ms, Chock 75 g @ 6 ms)
- **Shock operation** according to MIL-STD 810G method 516.6 procedure -I (functional test for ground equipment) 3 shocks in each 6 directions
- **Water protected** according to IPX5
- **Dust protected** according to IP4X
- **EMC protected** according to MIL-STD 461F method; RE 101, RE102 level Navy Mobile & Army and CE102 level Basic curve
- **EMI protected** according to MIL-STD 461F method: CE 101, RS103 level Army; CS101 level Curve#1; CS114 level Army; CS115 level Army and CS116 level Army

Fiber optic links

| Data speed | Fiber | Wavelength | Typical distance |
|------------|-------------|------------|--|
| 1 Gbps | 1000 BaseSX | 850 nm | 220 m Multimode 62.5/125 µm 500 m Multimode 50/125 µm |
| 1 Gbps | 1000 BaseLX | 1310 nm | 5 km Single mode 10/125 µm |
| 100 Mbps | 100 BaseSX | 1310 nm | 2 km Multimode 50/125 µm and 62.5/125 µm |

Environmental

Temperature range -40 to + 70 °C

Power Supply

DC 10-32 VDC, Max 10 W. (Optional 18-75 VDC)
DC connector 3 pin

Power Consumption

2.5 W

Regulatory compliance

Safety CE
Environmental Complies with appropriate requirements of RoHs and WEEE

MIL Standard

MIL-STD 810G, MIL-STD 461F (Only 660-00-7131, 60-00-7132, 60-00-7133, 60-00-7134)

RÖS U1/TEMPEST Level A

Class SS1 (Only 60-00-7132, 60-00-7444, 60-00-7133)

Dimensions and weight

Physical size 44(H), 110(W), 227(D) mm / 1.7 (H), 4.3 (W), 8.9(D) inch 1 U high and ¼ 19 inch wide
Weight 1.4 kg/ 3.09 lbs

Ordering information

Rugged Data Diodes

| Part number | Model | M-Number | Description | Mbps | Wave-length | In | Out | MM/SM |
|-------------|--------|--------------|--|------|-------------|----|-----|-------|
| 60-00-7131 | 50-800 | M3196-655310 | Data Diode Rugged 1 Gbps MM (TEMPEST Level A and RÖS U1) | 1000 | 850 | LC | LC | MM |
| 60-00-7445 | 50-800 | M3197-310051 | Data Diode Rugged 1 Gbps SM (TEMPEST Level A and RÖS U1) | 1000 | 1310 | LC | LC | SM |
| 60-00-7132 | 50-800 | M3196-655210 | Data Diode Rugged 1 Gbps MM | 1000 | 850 | LC | LC | MM |
| 60-00-7444 | 50-800 | N/A | Data Diode Rugged 1 Gbps SM | 1000 | 1310 | LC | LC | SM |
| 60-00-7134 | 50-800 | M3196-655010 | Data Diode Rugged 100 Mbps MM (TEMPEST Level A and RÖS U1) | 100 | 1310 | LC | LC | MM |
| 60-00-7133 | 50-800 | M3196-655110 | Data Diode Rugged 100Mbps MM | 100 | 1310 | LC | LC | MM |

Accessories

| Part number | Model | M-Number | Description |
|-------------|--------|--------------|---|
| 60-00-7113 | 50-800 | M1893-990309 | Adapter plate for 19 inch rack |
| 60-00-7421 | 50-800 | M1893-990279 | Mounting Bracket (4 pcs with screws) |
| 60-00-7233 | 50-800 | M1893-990289 | 1 HU Mounting Bracket for Fibersystem Rugged devices (one pair with screws) |
| 60-00-7114 | 50-800 | M1893-990299 | Adapter plate for other Rugged devices |