



Product Description

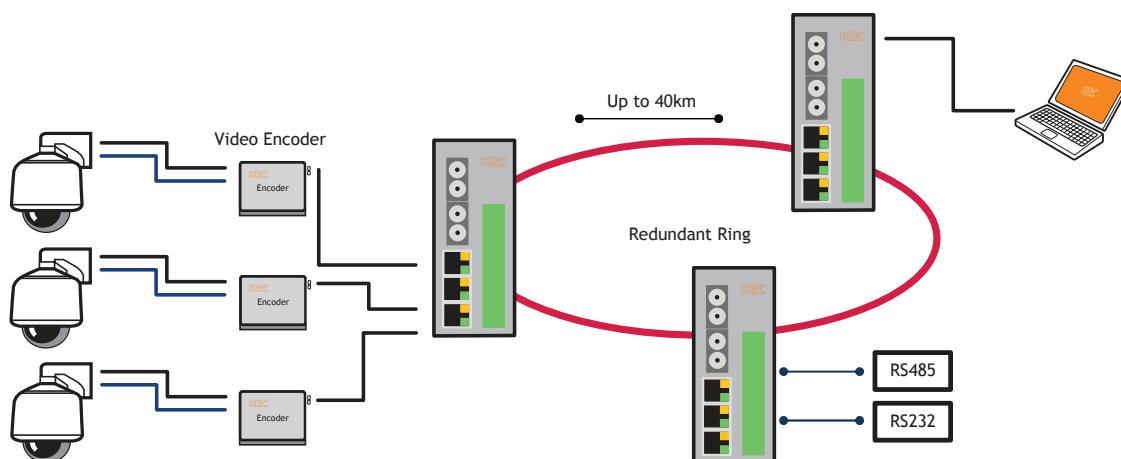
The KBC ESML3-FL2-D4 Ethernet series is a managed industrial switch designed for use in a wide range of operating temperatures in non-environmentally conditioned, industrial applications. The switch provides connectivity for up to three 10/100 Mbps twisted pair copper ports, two multimode or singlemode 100 Mbps fiber ports and four serial data (RS232/RS485) ports. Redundancy is offered through DT-Ring technology that recovers cable or port failures automatically in less than 50ms. Units can be fully managed through a number of different interfaces and provide a vast range of hardware and software features ensuring ease of installation and enhancement of network performance. The series is available in either DIN rail or wall-mount configurations.



Product Features

- Integrated 4 port terminal server
- Supports DT-Ring recovery, <50ms
- Redundant power input
- Alarm output for power supply
- Port status indicators
- Supports QoS, VLAN, SNMP, MIB V1/V2/V3, IGMP snooping, port mirroring, port trunking, static MAC address binding
- Broadcast storm control
- IP40 protection class

Typical System Configuration



Specifications

Standards

IEEE Standard

IEEE 802.3 10BASE-T
IEEE 802.3u 100BASE-TX &
100BASE-FX
IEEE 802.3x Full Duplex
IEEE 802.1p Class of Service
IEEE 802.1q VLAN Tagging
IEEE 802.1d Spanning Tree
Protocol
IEEE 802.1w Rapid Spanning
Tree Protocol

Switch Performance

Switching Method
Transfer Rate
Backplane Switch Capacity
Mac Address Table
No. of VLAN
No. of Priority Queues

Store & Forward
148,810 pps
8.8 Gbps
8k
4094
8

Data

Data Formats
Two Way Channels
Data Rate

RS232, RS485 (2W)
4
50 - 230.4 kbps
(9.6 kbps default)

Contact Closure Alarm Output

Output
Switch Rating

SPST Relay, normally open
120mA @ 350 Vdc

Power

Power Input

18 - 36 Vdc
Dual redundant
Input: 100-240 Vac
Output: +24 Vdc
<7W

Power Supply⁽¹⁾

Power Consumption

Environmental

Operating Temperature
Storage Temperature
Operating Humidity
Mean Time Between Failure (MTBF)

-40° ~ +85° C / -40° ~ +185° F
-40° ~ +85° C / -40° ~ +185° F
0 to 95% non-condensing
>300,000 Hours

Connectors

10/100 Electrical
100BASE-FX
Data (4 ports)
Contact Closure Alarm
Console
Power⁽²⁾

3 x RJ45
2 x Duplex SC
20-way Screw block terminal
2-way Screw block terminal
1 x RJ45
3-way Screw block terminal
(dual redundant)

Approvals

IEC61000-4-2(ESD)

IEC61000-4-3(RS)
IEC61000-4-4(EFT)

IEC61000-4-5(Surge)

IEC61000-4-6(CS)

IEC61000-4-8
(Power Frequency Magnetic Field)
IEC61000-4-12/18

IEC61000-4-10 (Damped Oscillatory)
IEC61000-4-16 30V cont.
(Common Mode Conduct)
FCC CFR47 Part 15/EN55022
IEC61000-6-2 (Industrial Standards)
IEC61850-3 (Substations)
IEEE1613 (Electric Power Substations)
EN50121-4 (Railway Applications)

±8kV Contact discharge,
±15kV Air discharge
10V/m (80-1000 MHz)
Power line ±4kV,
Data line ±2kV
Power line ±4kV CM/±4kV DM
Data line ±2kV
3V (10 kHz-150 kHz)
10V (150 kHz-80 MHz)
100A/m cont.
1000A/m, 1s to 3s
2.5kV CM, 1kV DM
(Damped Oscillatory Wave)
30A/m
300V, 1s

Class A

Part Number Configurator

ESML3-FL2-D4-S2-DA

M: Multimode
S: Singlemode

A: US Power Plug
B: UK Power Plug
C: Euro Power Plug
E: Australian Power Plug

D: DIN Rail
W: Wall-Mount

1. Please select the power plug from US Standard, Euro 2 Circular, UK 3 Pin square or Australian when placing order.
2. Power lines are crimped and fitted to screw block connector in factory.

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