

Viking Series

10x10/100/1000Base-T Ports, MIL-DTL-38999, Unmanaged Ethernet Switch, 28VDC

10x1000Base-T Ports

FEATURES

- 10x triple-speed (10/100/1000 Mbps) copper Ethernet ports
- Copper cable link distances up to 100 Meters (EIA/TIA Cat-5E)
- Operating temperature range from -40°C to +85°C
- Full duplex flow control per IEEE Std 802.3X and half duplex back pressure, symmetric and asymmetric
- Shock, vibration and immersion resistant per MIL-STD-810
- Olive drab cadmium plating meets stringent corrosion resistance specifications
- Aluminum connectors and housings are strong, durable and light weight
- Auto sensing of half or full duplex operation
- Unmanaged Ethernet switch - no configuration required

APPLICATIONS

Viking series 1000Base-T Ethernet switches enable high speed network communications in harsh environments.

- Civil and military vehicle networking
- Plug and play operation - no configuration required
- Unmanaged Ethernet switch port multiplication

The MIL-DTL-38999, Series III shells provide sealed interfaces that are water-tight to MIL-STD-810 when mated.



Unmanaged D38999 10x1000Base-T Port Ethernet Switch

DESCRIPTION

Viking series VS448-BUWN unmanaged Ethernet switches consist of 10x 10/100/1000Base-T ports with Autonegotiation and Auto MDI / MDIX circuitry into a wall or floor mounted assembly.

The external copper cable interface of the Viking series VS448-BUWN Ethernet switch is a D38999/25-35 Series III connector with 10x IEEE-802.3U compliant Gigabit Ethernet ports plus the power supply and ground connections.

Viking VS448-BUWN series Ethernet switches are vibration isolated, environmentally hardened components designed for use in harsh environment applications.

- Sealed against liquid and solid contaminants
- Shock and vibration resistant

ORDERING INFORMATION

Application	Part Number
10x10/100/1000Base-T / 28VDC	VS448-BUWN
See Appendix A1 for more part number options	

POWER

Standard	Feature	Minimum	Typical	Maximum	Unit
IEC 60950-1	Supply Voltage	+12.0	28.0	+36.0	VDC
	Current		700	750	mA
	Power Consumption		19.6	21.0	W

RELIABILITY

Standard	Method	Feature	Maximum	Unit
HDBK-217F	Parts Count	MTBF	211,866.9	Hrs@ 30°C
		FITS	4719.9	10 ⁹ Hrs@ 30°C

ENVIRONMENTAL

Standard	Method	Feature	Minimum	Maximum	Notes
MIL-STD-810G	501, 502	Storage Temperature	-55	+100	°C
	501, 502	Operating Temperature	-40	+85	°C
	514	Random Vibration	10	2000	Hz
	516	Operating Shock		20.0g	11mS
	507.5	Humidity - Non Condensing		95% RH	40 °C
	500	Operational Altitude		3,962	M
	500	Storage Altitude		12,192	M
	510.4	Blowing Sand and Dust		10	g/M ³

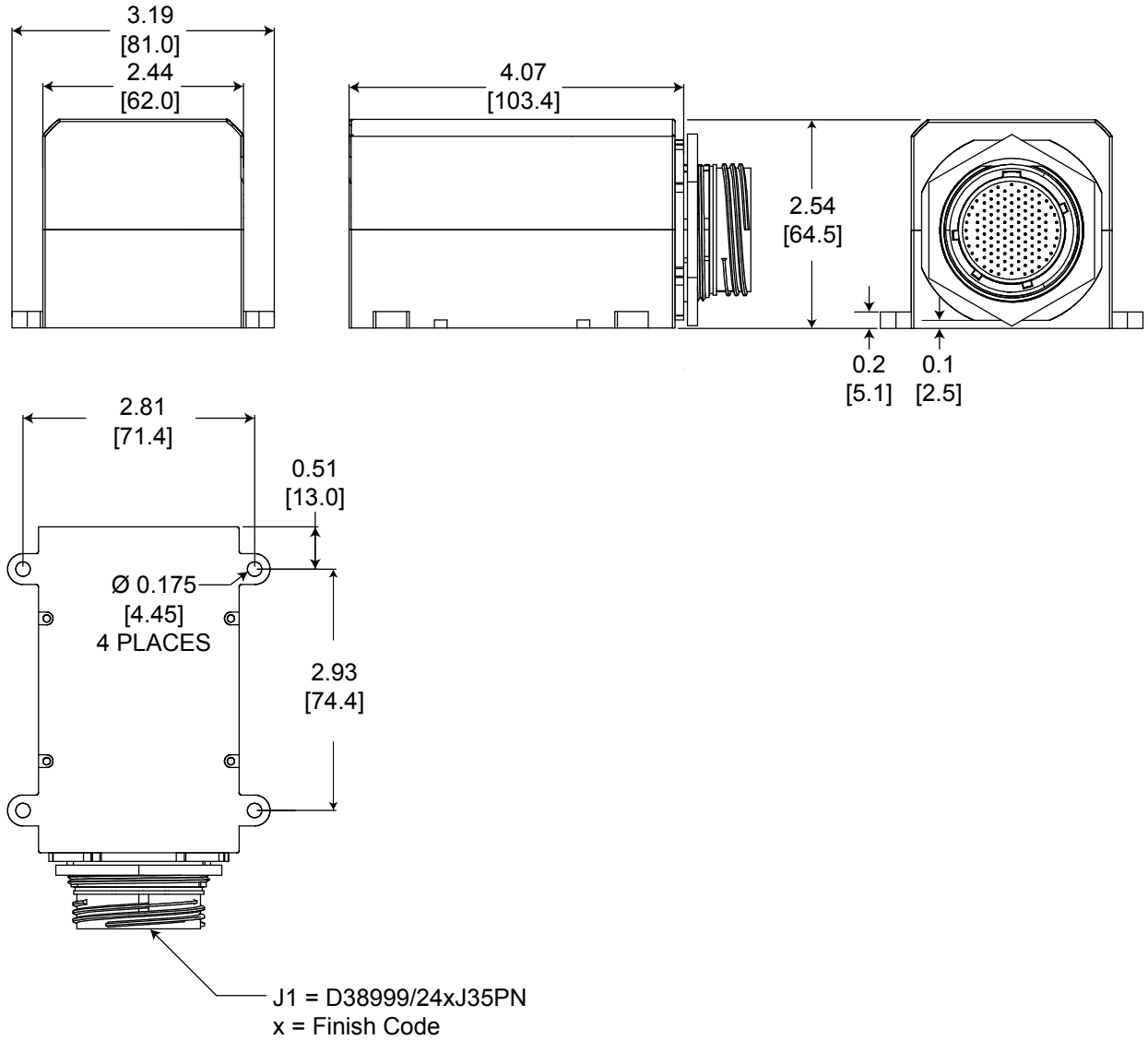
MATERIALS

Item	Detail	Notes
Chassis and Connectors	T-6061 Aluminum Alloy	
Chassis Finish	OD-CD, NI or ZN-NI	
PCB	Conformal Coating	
Weight	23.152oz/656.35grams	

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OUTLINE DRAWING

Dimensions are shown as: inches [mm]



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J1 / D38999/24xJ35PN ELECTRICAL PIN FUNCTIONS - Continued on next page

Port #	Pin #	Function	RJ-45 Eq. Pin #	Logic Family
1	9	MDA+	1	IEEE-802.3 - 10/100/1000Base-T
	17	MDA-	2	
	10	MDB+	3	
	18	MDB-	6	
	11	MDC+	4	
	19	MDC-	5	
	12	MDD+	7	
	20	MDD-	8	
2	25	MDA-	2	
	36	MDA+	1	
	26	MDB-	6	
	37	MDB+	3	
	27	MDC-	5	
	38	MDC+	4	
	28	MDD-	8	
	39	MDD+	7	
3	48	MDA+	1	
	59	MDA-	2	
	49	MDB+	3	
	60	MDB-	6	
	50	MDC+	4	
	61	MDC-	5	
	51	MDD+	7	
	62	MDD-	8	
4	71	MDA+	1	
	82	MDA-	2	
	72	MDB+	3	
	83	MDB-	6	
	73	MDC+	4	
	84	MDC-	5	
	74	MDD+	7	
	85	MDD-	8	

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J1 / D38999/24xJ35PN ELECTRICAL PIN FUNCTIONS - Continued on next page

Port #	Pin #	Function	RJ-45 Eq. Pin #	Logic Family
5	94	MDA+	1	IEEE-802.3 - 10/100/1000Base-T
	105	MDA-	2	
	95	MDB+	3	
	106	MDB-	6	
	96	MDC+	4	
	107	MDC-	5	
	97	MDD+	7	
	108	MDD-	8	
6	109	MDA+	1	
	117	MDA-	2	
	110	MDB+	3	
	118	MDB-	6	
	111	MDC+	4	
	119	MDC-	5	
	112	MDD+	7	
	120	MDD-	8	
7	90	MDA+	1	
	101	MDA-	2	
	91	MDB+	3	
	102	MDB-	6	
	92	MDC+	4	
	103	MDC-	5	
	93	MDD+	7	
	104	MDD-	8	
8	66	MDA+	1	
	78	MDA-	2	
	67	MDB+	3	
	79	MDB-	6	
	68	MDC+	4	
	80	MDC-	5	
	69	MDD+	7	
	81	MDD-	8	

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J1 / D38999/24xJ35PN ELECTRICAL PIN FUNCTIONS - Continued from previous page

Port #	Pin #	Function	RJ-45 Eq. Pin #	Logic Family
9	43	MDA+	1	IEEE-802.3 - 10/100/1000Base-T
	55	MDA-	2	
	44	MDB+	3	
	56	MDB-	6	
	45	MDC+	4	
	57	MDC-	5	
	46	MDD+	7	
	58	MDD-	8	
10	21	MDA+	1	
	32	MDA-	2	
	22	MDB+	3	
	33	MDB-	6	
	23	MDC+	4	
	34	MDC-	5	
	24	MDD+	7	
	35	MDD-	8	
All	1	N/C	N/A	N/A
	2	N/C		
	3	CASE GND		
	4	+28V		
	5	28V RTN		
	6	N/C		
	7	N/C		
	14	N/C		
	100	Reset		
	47	Ground		RS232_GND

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APPENDIX A1
PART NUMBER OPTIONS
Ten 10/100/1000Base-T Ports

VS448 - BU x N

Base Part Number
VS448 = Viking Switch

Configuration
BU = Unmanaged 10 Port

Shell Finish
F = NI
W = OD CD / NI
Z = ZN / NI

Shell Polarization
N = N
A = A
B = B
C = C
D = D



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