

Korenix JetNet 3508G-LVDC Series
JetNet 3508-LVDC/ 3508G-LVDC
Industrial Ethernet Switch

User's Manual

Version: 1.0



www.korenix.com

Korenix JetNet 3508G-LVDC Series

JetNet 3508-LVDC / 3508G-LVDC

Industrial Ethernet GbE Switch

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1. Introduction

Korenix JetNet 3508G-LVDC Series is a power over Ethernet rail switch that is specially designed for industrial or commercial applications. The following topics are covered in this chapter:

1.1 Overview

1.2 Product Features

1.1 Overview

JetNet 3508G-LVDC series, Industrial GbE Switches, are designed with full Gigabit calling JetNet 3508G-LVDC and 1 Gigabit and 7 Fast Ethernet ports calling JetNet 3508-LVDC to ensure high-bandwidth uplink connection for wide markets.

To ensure the high quality of video data transmission, JetNet 3508G-M12 series not only provides Gigabit bandwidth uplink for large image traffic, but also support CoS to adjust the priority of data transmission. The compact size with IP-41 steel metal case allows JetNet 3508G-LVDC series to be reliably operated in -40~75°C extreme environment.

1.2 Product Features

Korenix JetNet 3508-LVDC / 3508G-LVDC have the following features:

	JetNet 3508-LVDC	JetNet 3508G-LVDC
Features Highlight		
10/100 TX port	7	-
10/100/1000 TX port	1	8
Class of Service	Yes	Yes
Aluminum Case Protection	IP41(IP54 by request)	IP41(IP54 by request)
Operating Temperature	-40~75°C	-40~75°C
Power Input	12~24V power input	12~24V power input

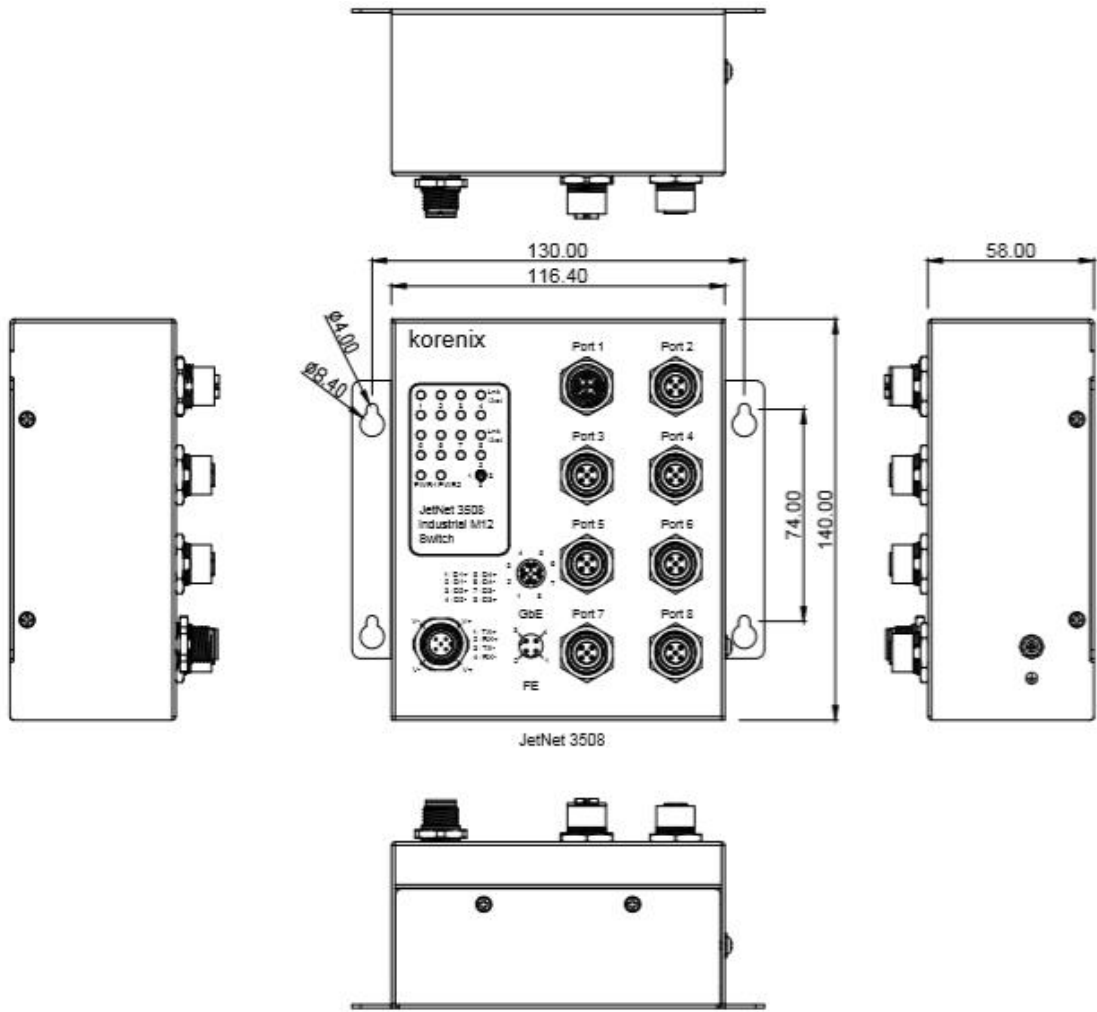
*Specifications may change without prior notice

2. Hardware Installation

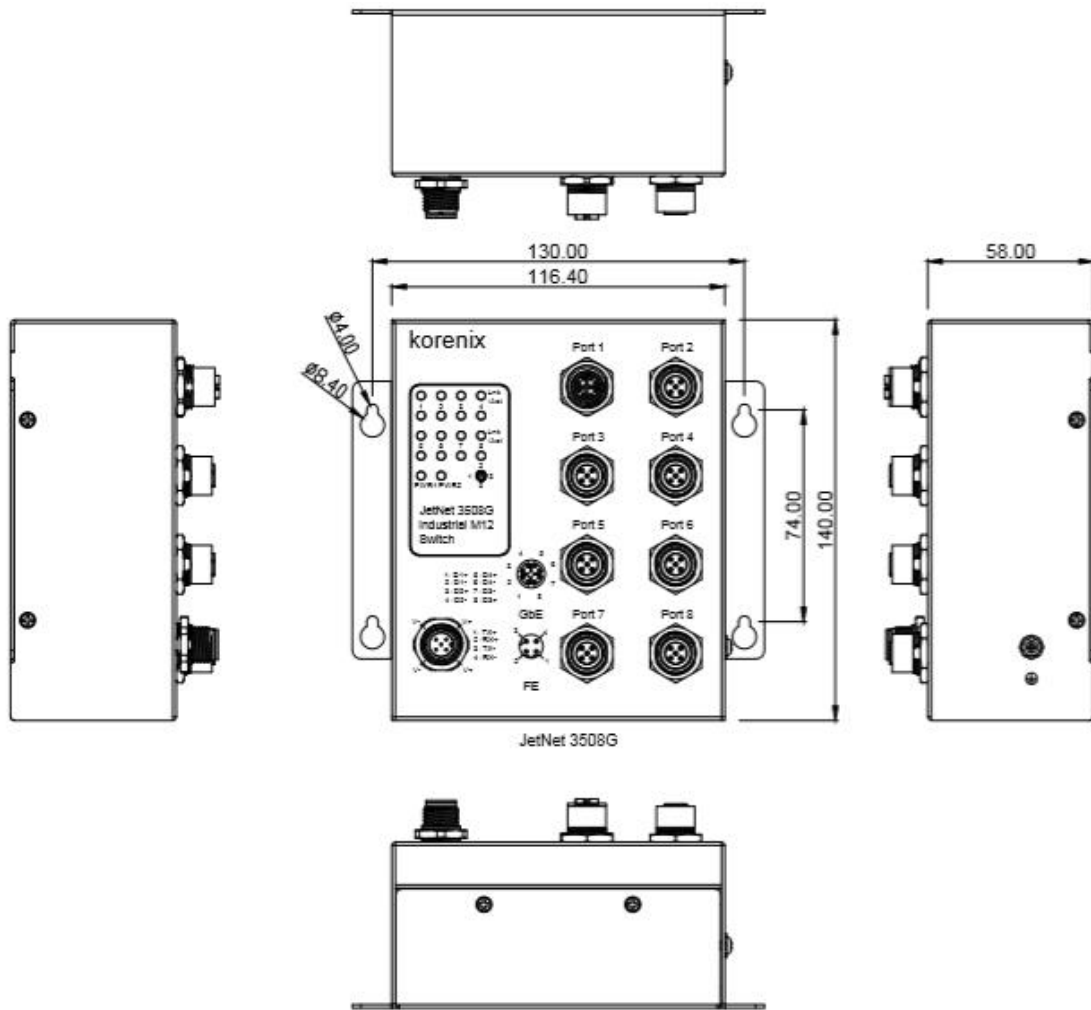
2.1 Hardware Introduction

Dimensions

JetNet 3508-LVDC dimensions: 116(H) x 146(W) x 58(D)



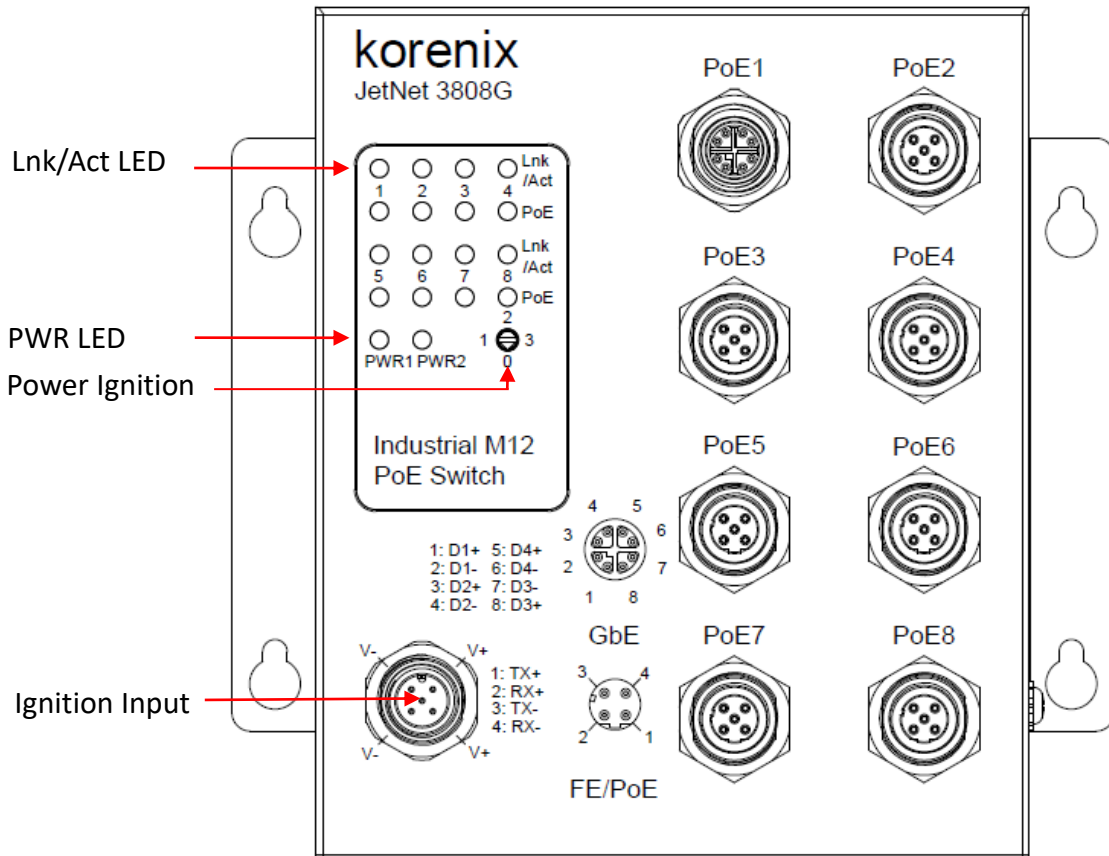
JetNet 3508G-LVDC dimensions: 116(H) x 146(W) x 58(D)



Front Panel


JetNet 3508-LVDC/ 3508G-LVDC include system power LED x1, and 8 LEDs for the port operating status.

JetNet 3508-LVDC / JetNet 3508G-LVDC (Don't have PoE LED)




Connector definition

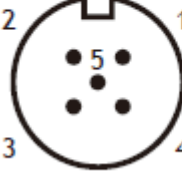
JetNet 3808G-M12/3908G-M12 X-Code 8-PIN, Female

Cat-6, Cat-7 Shielding Twisted Cable, 24~26AWG			
Pin Assignment drawing	Pin	Description	PoE
	1	Bidirectional (0)+	PoE V+ / P
	2	Bidirectional (0)-	PoE V+ / P
	3	Bidirectional (1)+	PoE V- / N
	4	Bidirectional (1)-	PoE V- / N
	5	Bidirectional (3)+	
	6	Bidirectional (3)-	
	7	Bidirectional (2)-	
	8	Bidirectional (2)+	

JetNet 3808G-M12 D-Code 4-PIN, Female

Cat-6, Cat-7 Shielding Twisted Cable, 24~26AWG			
Pin Assignment drawing	Pin	Description	PoE
	1	TX+	PoE V+ / P
	2	RX+	PoE V- / N
	3	TX-	PoE V+ / P
	4	RX-	PoE V- / N

Power Connector - M12 A-Code 5-PIN, Male

Pin Assignment drawing	Pin	Description
	1	Power-2, DC+
	2	Power-1, DC+
	3	Power-1, DC -
	4	Power-2, DC -
	5	Ignition

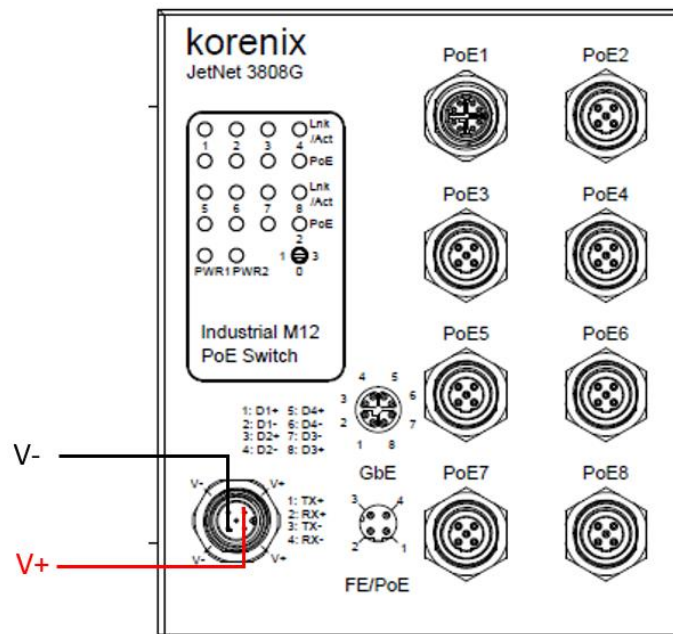
LED Indicators

The following table describes the function of each LED indicator.

LED	Status	Description
PWR1	Green	DC-IN Power Jack is On
	Off	No Power Input
	Blinking	Delay time off into standby mode
PWR2	Green	DC-IN Power Jack is On, System Standby
	Off	No Power Input
Lnk/Act	Green on	The port is attached with partner.
	Green Blinking	The port is transmitting or receiving packets.
	Off	The port's link is inactive

2.2 Wiring the Power Inputs

JetNet 3508-LVDC/ 3508G-LVDC power input is 9~36VDC



IMPORTANT: Do make sure that different models must connect to the corresponding supply voltage. Guarantee will not apply to the damage caused by wrong input power.

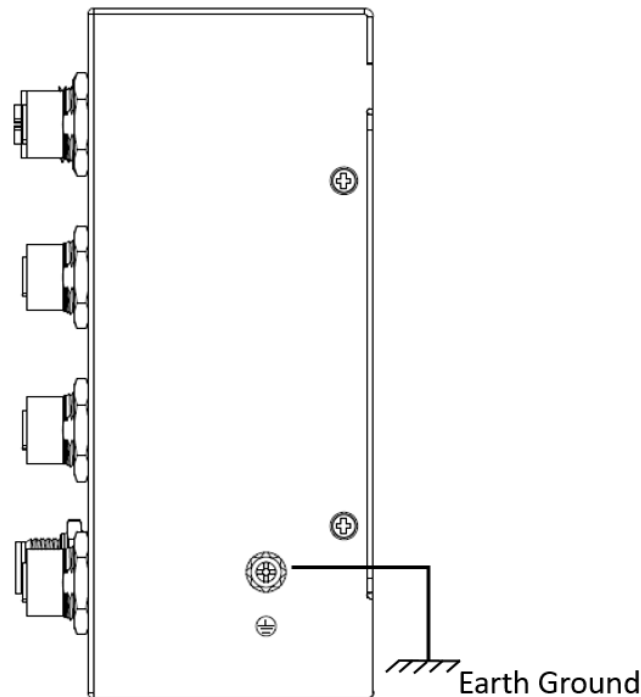
Note: The product intended to be supplied by LPS power supply.

1. Insert the positive and negative wires of your DC supply into the V+ and V- contacts of the M12 A-Code Female connector. The acceptable wire range is 12 to 24 AWG.

2.4 Wiring Earth Ground

To ensure the system will not be damaged by noise or electric shock, we suggest making a direct connection between the JetNet 3508-LVDC/ JetNet3508G-LVDC and earth ground to avoid system damage in below photo.

1. On the right side of bottom of the JetNet 3508-LVDC / JetNet3508G- LVDC, there is one earth ground screw.
2. Loosen the earth ground screw with a screwdriver
3. Tighten the screw after the earth ground wire is connected.

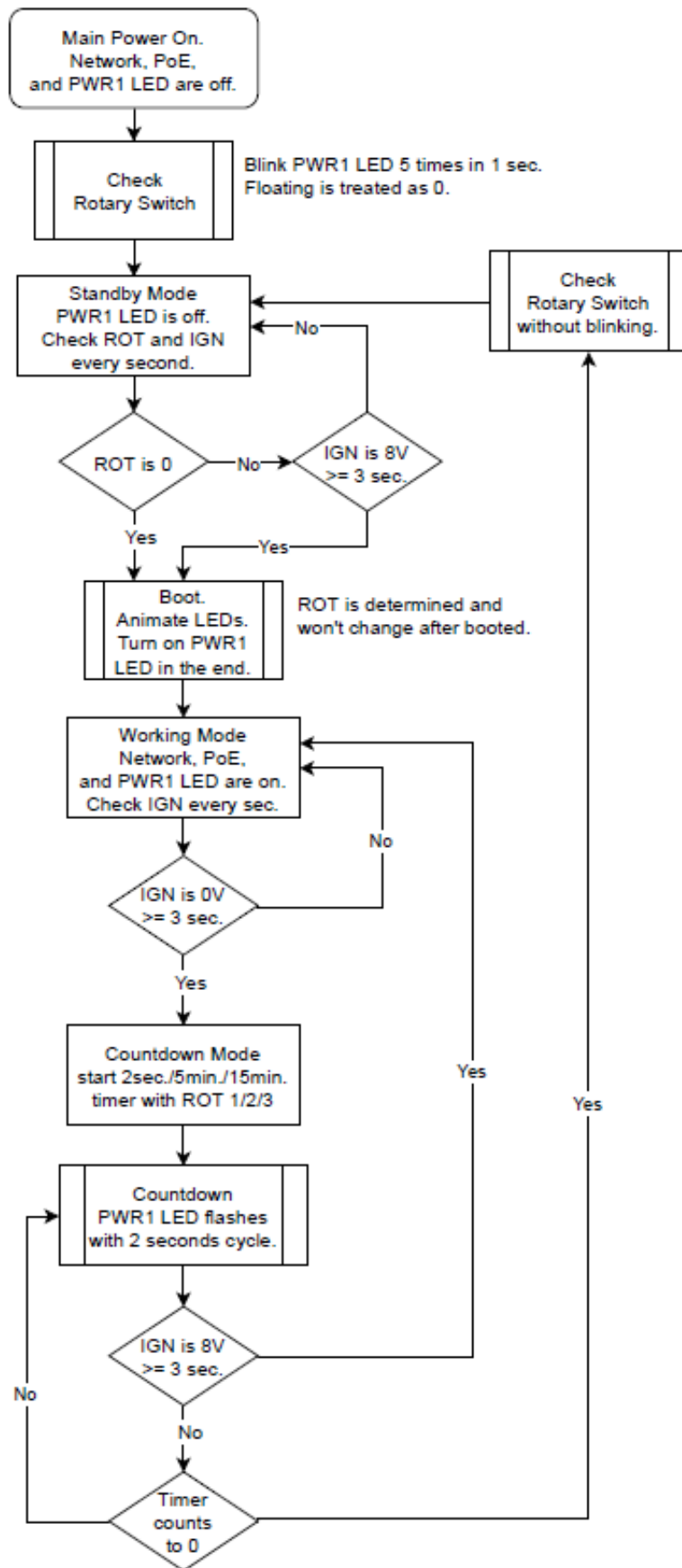


2.5 Rotary Switches (Ignition Function)

4-Pin rotary switch is one of components to trigger delay off into standby mode function, the detail shows in table 1, how does ignition function work. It is showed in diagram 1.

Power Input	Rotary Switch	Ignition Voltage	System	Note
<9V	0		Off	
<9V	1,2,3	> 7.6VDC	Off	
<9V	1,2,3	< 7.6VDC	Off	
9-36 VDC	0		On	Including Rotary floating
9-36 VDC	1,2,3	> 7.6VDC	On	
9-36 VDC	1,2,3	< 7.6VDC	Delay off into Standby mode	Rotary 1: 2 sec Rotary 2: 5 minutes Rotary 3: 15 minutes

(Table 1)



(Diagram 1)

3. Appendix

3.1 Product Specification

3.2 Revision History

3.1 Product Specification

Technology	
Standard	IEEE 802.3u 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000Base-TX Gigabit Ethernet IEEE 802.3x Flow control and back-pressure
Network Performance	
Switch Technology	Store and Forward technology with 16Gbps non-blocking (JetNet 3508G-LVDC) Store and Forward technology with 3.4Gbps non-blocking (JetNet 3508-LVDC)
System Throughput	23.8Mega packets per second, 64Bytes packet length
Transfer packet size	64Bytes ~1518Bytes
MAC Address	16K MAC address table
Packet Buffer	2 Mega bits shared packet buffer
Broadcast storm control:	Default enabled Traffic threshold: 25M bps@1000Mbps; 10M bps@100Mbps; 1M bps@10 Mbps
Jumbo frame	Up to 10K Bytes
Transfer performance	14,880 pps @10Mbps 148,800 pps @100Mbps 1,488,100 pps @1000Mbps

Class of Service	Default Enabled Compliance with IEEE802.1p class of service with Tag Based Priority rule. Each switch port provides 4 priority queues as following - 8 (Higher) : 4(High) : 2(Low) :1(Lower) scheduling. The Tag Priority ID as following: Highest (6,7), High (4,5), Low (0,3), Lowest (1,2)
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Interface

Enclosure Port	<ul style="list-style-type: none"> • 1000 Base-T/Gigabit Ethernet (Port #1): 1 x M12-X Code 8-pin Female (JetNet 3508G-LVDC) • 1000 Base-T/Gigabit Ethernet (Port #1): 1 x M12-X Code 8-pin Female (JetNet 3508-LVDC) • 10/100 Base-T/TX Fast Ethernet (Port #2~#8): 7 x M12-D Code 4-pin Female (JetNet 3508-LVDC) • M12-X (Conductor #): (#1) 0P(D1+), (#2) 0N(D1-), (#3)1P(D2+) -, (#4)1N(D2-), (#5)3P(D4+) (#6)3N(D4-), (#7) 2N (D3-), (#8) 2P (D3+) • Power: M12 A-Code 5-pin Male
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LED Indicators	Port 1~8: Link (Green on)/Activity (Green Blinking) Power: System Power Ready (Green on), Ignition function Activity (Green Blinking)
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Power Requirement

System Power	Input voltage: DC 12V or DC 24V, variation range DC 9- 36 V
Power consumption	6 Watts @ DC 24V without PD loading

Power Ignition Management

	The count-down timer supports 4 scenarios which can be configured by Rotary-switch. The detail shows in user manual.
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Mechanical

Installation	Wall Mounting
Enclosure Material	Steel Metal with textured paint
Ingress Protection	IP-41 (IP54 available by request)
Dimension (mm)	116 mm (H) x 140 mm (W) x 58 mm (D) (without wall mount clip)
Weight (Kg)	1.105

Environmental	
Operating Environment	-40°C~75°C (120 Watts PoE/PD Loading), 0~90%, Non-condensing
Storage Environment	-40°C~85°C, 0~90% Non-Condensing
Hi-Pot	AC 1KV for ports-power, power-case
Approvals	
Railway Standard	EN50155, EN 50121-4, EN50121-3-2
Traffic	E-mark E13 10R-05 14802
EMC	EMI: EN50121-3-2, FCC Class A, IEC/EN61000-6-4 EMS:EN50121-3-2/EN50121-1, IEC/EN61000-6-2 IEC/EN61000-4-2, IEC/EN61000-4-3, IEC/EN61000-4-4, IEC/EN61000-4-5, IEC/EN61000-4-6, IEC/EN61000-4-8, IEC/EN61000-4-9
Variation/Shock	IEC 61373
Free Fall	IEC 60068-2-32 with package Note-1
MTBF (hrs)	379,940
Warranty	5 Years

3.2 Revision History

Edition	Date	Modifications
V1.0	09/04/2019	New edition