

brain boxes SW-125 Industrial PoE Plus Ethernet Switch Range



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**brain**boxes

## brain boxes SW-125 Industrial PoE Plus Ethernet Switch Range



### Specifications

- Model Variants: SW-125, SW-525, SW-725, SW-135, SW-535, SW-735, SW-195, SW-595
- Power over Ethernet: IEEE 802.3af/at
- Fast Ethernet: 10/100 BaseT (RJ45)
- Gigabit Ethernet: 10/100/1000 BaseT (RJ45)
- SFP Ports: 1000 Base-X
- Enclosure: Embedded Industrial Hardened

### Product Usage Instructions

#### Installation

Ensure the switch is powered off before installation. Mount the switch securely using DIN rail mounting or embedding as per your requirements.

#### Connectivity

Connect Ethernet cables to the appropriate ports based on your network setup. Use the provided pinout information for correct connections.

#### Powering the Switch









Apply a +57V DC power supply to power up the switch. Utilize the provided power terminal block for safe and secure power connections.

#### Overview – Less Cost, Less Cabling, Less Maintenance

Designed for demanding environments, Brainboxes Industrial PoE Switches remove the need for costly electrical installations by enabling the transmission of electrical power over the same cable that carries data.

Available with Fast and Gigabit Ethernet, plus SFP, and in a range of enclosures to perfectly fit your application, Brainboxes PoE switches are simple to install, fully conform to IEEE 802.3af/at Ethernet standards for reliable performance, and offer the flexibility to deploy powered devices at almost any location.

#### Functionality and Features

	EMBEDDED	INDUSTRIAL	HARDENED
FAST	 SW-125	 SW-525	 SW-725
GIGABIT	 SW-135	 SW-535	 SW-735
GIGABIT PLUS SFP	 SW-195	 SW-595	

- 4 PoE+ capable ports
- Fully compliant with IEEE 802.3af/at
- PoE Power Budget: 90W @ 70°C between all 4 PoE ports
- Industrial temp range: -40°C to +70°C
- Redundant dual power inputs: +44V to +57V DC
- Compact design
- Allows power and data to be combined on the same Ethernet cable
- DIN Rail Mountable or Embedded

## Product Variants

<b>Model</b>	<b>PoE+</b> IEEE 802.3af/at	<b>Fast Ethernet</b> 10/100 BaseT (RJ45)	<b>Gigabit</b> 10/100/1000 BaseT (RJ45)	<b>SFP</b> 1000 Base-X	<b>Enclosure</b>
<b>SW-125</b>	4	5	–	–	Embedded
<b>SW-525</b>	4	5	–	–	Industrial
<b>SW-725</b>	4	5	–	–	Hardened
<b>SW-135</b>	4	–	5	–	Embedded
<b>SW-535</b>	4	–	5	–	Industrial
<b>SW-735</b>	4	–	5	–	Hardened
<b>SW-195</b>	4	–	4	1	Embedded
<b>SW-595</b>	4	–	4	1	Industrial

## General Information

<b>Model</b>	<b>Power Consumption</b> (not including PoE)	<b>Operating Temp (°C)</b>	<b>Product Weight (kg)</b>	<b>Product Size (mm)</b>	<b>GTIN (barcode)</b>	<b>Package Weight (kg)</b>	<b>Package Size (mm)</b>
<b>SW-125</b>	4 Watts Max: 70mA@+57VDC	-40 to +70	0.079	105 x 95 x 20	837324004588	0.182	160 x 135 x 49
<b>SW-525</b>	4 Watts Max: 70mA@+57VDC	-40 to +70	0.132	116 x 99 x 23	837324004533	0.235	160 x 135 x 49
<b>SW-725</b>	4 Watts Max: 70mA@+57VDC	-40 to +70	0.327	115 x 99 x 28	837324004564	0.444	160 x 135 x 49
<b>SW-135</b>	5.5 Watts Max: 96mA@+57VDC	-40 to +70	0.090	105 x 86 x 20	837324005066	0.162	160 x 135 x 49
<b>SW-535</b>	5.5 Watts Max: 96mA@+57VDC	-40 to +70	0.137	116 x 99 x 23	837324005073	0.24	160 x 135 x 49
<b>SW-735</b>	5.5 Watts Max: 96mA@+57VDC	-40 to +70	0.327	115 x 99 x 28	837324005172	0.422	160 x 135 x 49
<b>SW-195</b>	5.3 Watts Max: 93mA@+57VDC	-40 to +70	0.089	105 x 86 x 20	837324005189	0.160	160 x 135 x 49
<b>SW-595</b>	5.3 Watts Max: 93mA@+57VDC	-40 to +70	0.136	115 x 100 x 23	837324005080	0.231	160 x 135 x 49

## Pinouts

### 2.1 Ethernet Ports

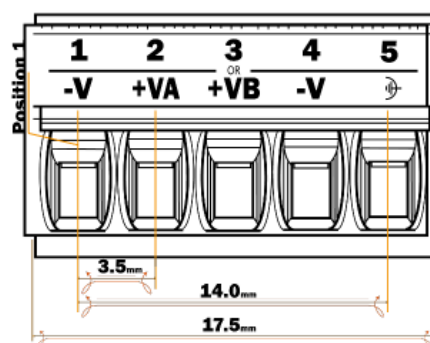
PoE Pinout 1/2(V+) 3/6(V-) Endspan Mode A

PIN	FUNCTION		
	Data 10/100	Data Gigabit	PoE Power
1	Tx+	TxRx A+	DC+
2	Tx-	TxRx A-	DC+
3	Rx+	TxRx B+	DC-
4		TxRx C+	
5		TxRx C-	
6	Rx-	TxRx B-	DC-
7		TxRx D+	
8		TxRx D-	

## Power Terminal

PIN	FUNCTION
1	-V
2	+VA
3	+VB
4	-V
5	FUNC EARTH

5 position 3.5mm pitch pluggable terminal block included

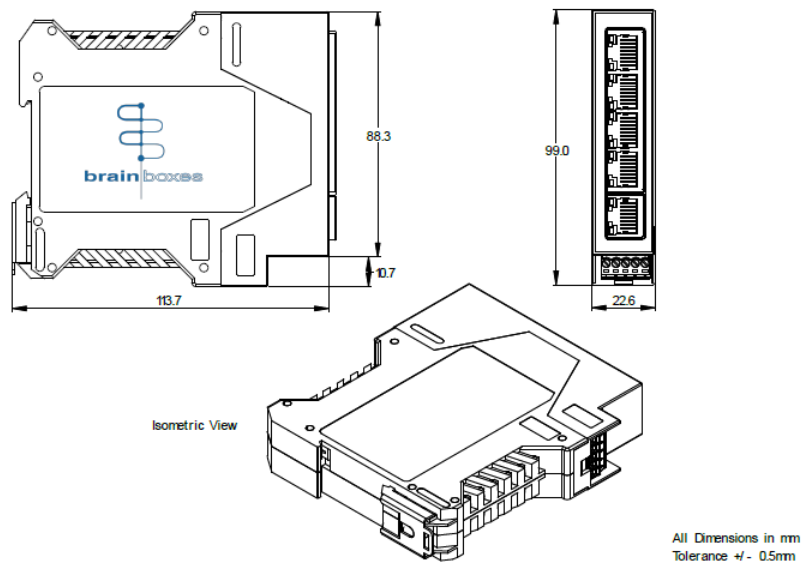


Enclosures (3D Models Available)

3.1 Industrial

### 3.1.1 SW-525, SW-535, SW-595

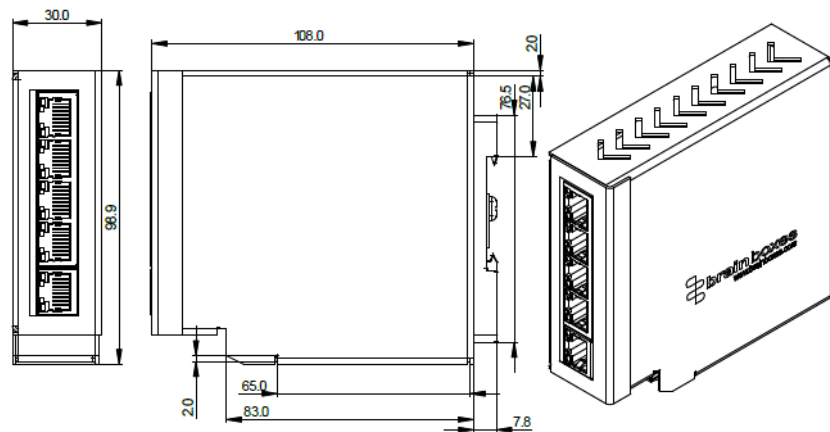
DIN rail mountable IP-20 rated non-conducting polyamide case



### 3.2 Hardened

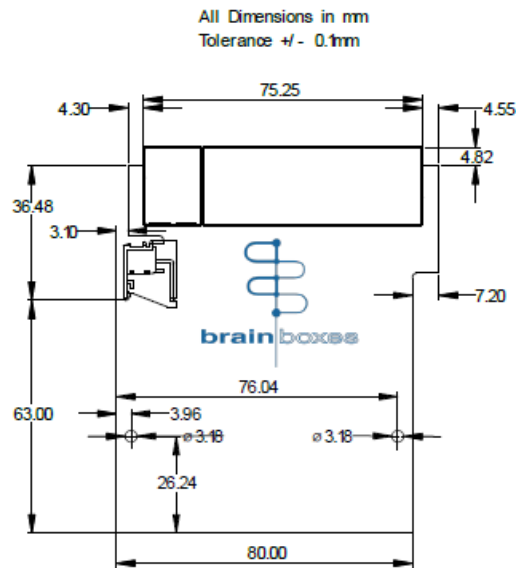
#### 3.2.1 SW-725, SW-735

DIN rail mountable hardened metal enclosure

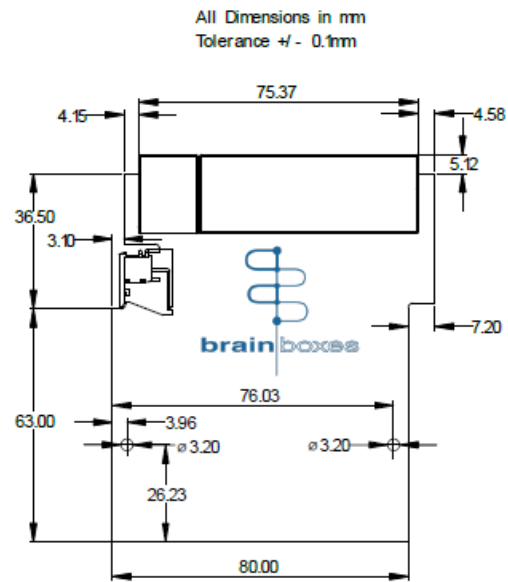


### Embedded

#### 3.3.1 SW-125

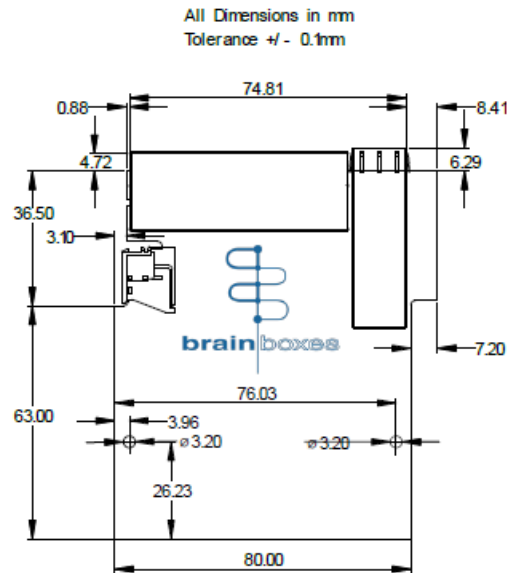


### 3.3.2 SW-135



### 3.3.3 SW-195





## Data

Gigabit Ethernet: Jumbo Frame support

SFP Port: Overcurrent protection

## 4.1 Connectors

<b>Screw Terminals</b>	3.5mm pitch, #22 – #14, 0.5mm <sup>2</sup> -2.5mm <sup>2</sup> pin power supply
<b>Wire Thickness</b>	0.150 inch, 3.81mm, 20 pins, 12+8 screw terminals, #26 – #16 AWG, 0.14mm <sup>2</sup> -1.3mm <sup>2</sup>

## Power Supply

<b>Power Consumption</b>	<b>See Table: 1.3 General Information</b>
<b>PoE Power Budget</b>	90W @ 70°C 4 Ports IEEE 802.3af/at compliant: deliver up to 30W to each port (backwards compatible)
<b>Power Supply Input</b>	Unregulated +44V to +57 Volts DC, reverse polarity protection
<b>Isolation</b>	1500VRMS Magnetic isolation from Ethernet

## Environment

<b>Operating Temperature</b>	-40°C to +70°C/-40°F to +158°F
<b>Storage Temperature</b>	-40°C to +70°C/-40°F to +158°F
<b>Ambient Relative Humidity</b>	5 to 95% (non-condensing)

## Ethernet

<b>Ethernet Port</b>	5 x RJ45 jack, auto-negotiation, crossover auto-sensing (Auto MDIX)
<b>Protection</b>	1,500 Volts magnetic isolation between ports

## Magjack LED

<b>Link/Activity LED</b>	<b>Solid Green</b>	Connection established
	<b>Flashing Green</b>	Data communication
<b>PoE Power LED (ports 1-4) (ports 2-5 SW-X95 only)</b>	<b>Solid Yellow</b>	PoE power ON
	<b>Flashing Yellow</b>	Power warning

## SFP LED

<b>SFP Power LED</b>	<b>Solid Green</b>	SFP power ON
	<b>Solid Amber</b>	SFP plugged in
	<b>Flashing Amber</b>	SFP activity
	<b>Flashing Green/Amber</b>	SFP error/incompatible

## Approvals & Support

## 5.1 Industry Approvals

<b>General</b>	WEEE, RoHS, CE, UKCA,
<b>UL</b>	METL Complies with UL62368-1
<b>HTS</b>	8517620000
<b>ECCN</b>	5A991.b

## Company Approvals

<b>General</b>	ISO9001, ISO14001, Microsoft Certified Gold Partner, AEO (C-TPAT)
<b>CAGE</b>	8QCY6
<b>NCAGE</b>	U0Q96
<b>GSA Contract Number</b>	47QTCA23D009X

## Support

<b>Warranty</b>	Lifetime – online registration required
<b>Support</b>	Lifetime Web, Email, and phone support from fully qualified, friendly staff who work in and alongside the Product Development Team
<b>OEM option</b>	Available for bulk buy OEM
<b>COO (Country of Origin)</b>	Made in GB, United Kingdom of Great Britain & Northern Ireland
<b>Customizable</b>	Perfect Fit Custom Design policy for volume users

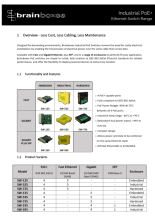
## Accessories

• [PW-301 – 96W Single Output Industrial DIN Power Supply](#)

Frequently Asked Questions (FAQ):

- **Q: What is the maximum power consumption of the SW-135 model?**  
A: The SW-135 model has a maximum power consumption of 5.5 Watts at 96mA@+57VDC.
- **Q: Can I mount the SW-595 variant in an industrial environment?**  
A: Yes, the SW-595 variant is suitable for industrial use with its hardened embedded enclosure design.

Documents / Resources



[brain boxes SW-125 Industrial PoE Plus Ethernet Switch Range](#) [pdf] Instruction Manual SW-125, SW-525, SW-725, SW-135, SW-535, SW-735, SW-195, SW-595, SW-125 Industrial PoE Plus Ethernet Switch Range, SW-125, Industrial PoE Plus Ethernet Switch Range, PoE Plus Ethernet Switch Range, Ethernet Switch Range, Switch Range

References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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