



piconet Selection Guide

Gateway	Higher Level System	Pages
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	Ethernet	D9
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piconet

piconet Selection Guide

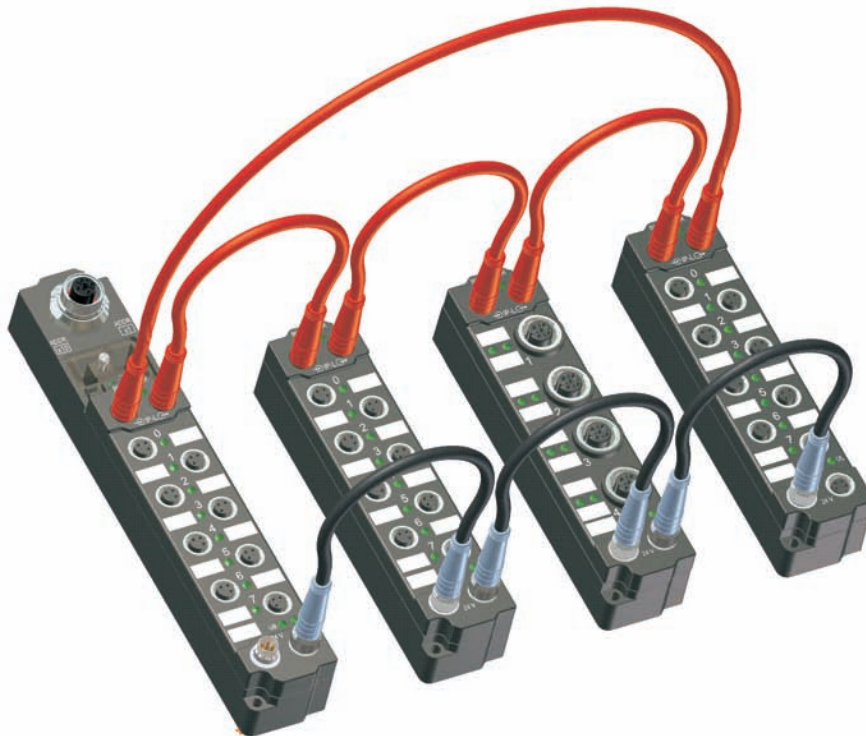
Modules	Type	I/O Direction	Pages
	Discrete	Input	D13
		Output	D15
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	Analog	Input	D21
		Output	D25
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The *piconet* System

piconet combines the rugged connectorized concept of **TURCK's** AIM™ stations with the modular I/O concept of the BL20 and BL67 systems. ***piconet*** stations are IP 67 rated and designed to be mounted directly on the machine with no need for a separate enclosure. Like the BL (BL20, BL67) systems, ***piconet*** consists of a gateway with connected I/O modules, but instead of connecting the I/O to a fixed backplane, ***piconet*** uses a distributed fiber-optic ring to communicate between the gateway and I/O.

piconet stations are available as stand alone units for DeviceNet™, PROFIBUS®-DP and CANopen systems; this section focuses on ***piconet*** subnetwork systems. Subnetwork systems offer a very flexible approach to connectorized I/O, while allowing individual stations to be mounted as close as possible to I/O devices.

Up to 255 extension modules may be connected to one gateway, with no more than 15 m of fiber-optic cable between each module.



Addressing

As a node on a network, **piconet**® systems have an address that is dependent on the network system being used. Each network gateway has a set of rotary switches used to set the address for the node.

DeviceNet and CANopen gateways may be addressed between 0 and 63 via two switches (one for the 10's digit and one for the 1's digit). For example, to set the address to 37 you would set the 10's switch to 3 and the 1's switch to 7. The third switch on these gateways can be used to set the communication rate of the network interface. PROFIBUS-DP gateways also use two switches, but may be addressed as high as 99.

Power

piconet gateways and extension modules accept two 24 VDC power supplies via a male/female pair of 4-pin **picofast**® (M8) connectors. One of the supplies is for the station electronics and inputs, while the other is used to power outputs. Power may be connected from module to module by using **picofast** extension cords, or individual modules or groups of modules may be powered from separate supplies.

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DeviceNet Gateway



SDNL-0404D-0003



- Rugged, Fully Potted Stations
- IP 67 Protection
- Small Footprint
- Flexible I/O Subnetwork

Electrical

- Operating Current: <75 mA plus sensor currents (from U_B)
- Sensor Current: <500 mA total of all sensors (from U_B)
- Output Current: <500 mA per output (from U_L)

Power Distribution

- Inputs: U_B Power supply
- Outputs: U_L Power supply

Mechanical

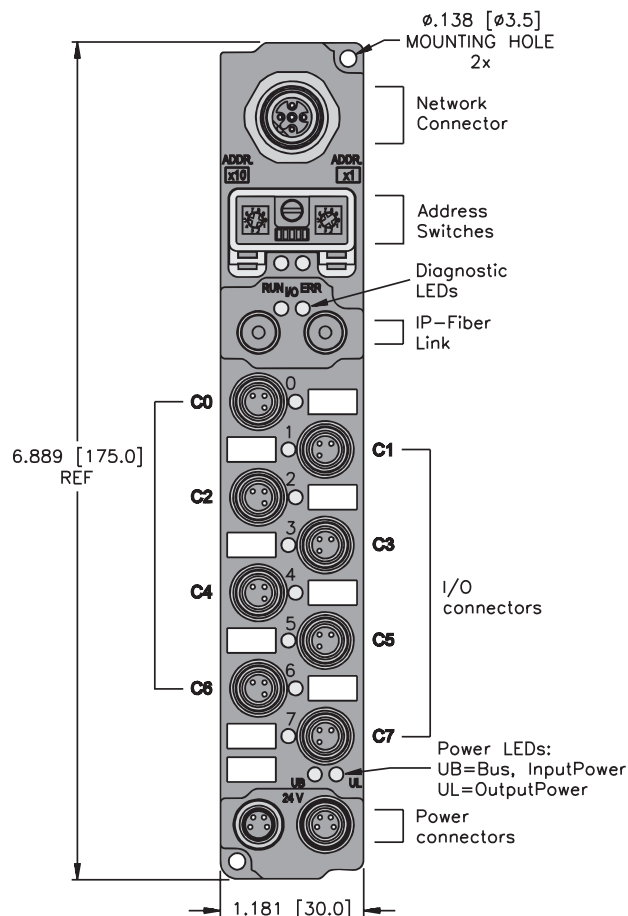
- Operating Temperature: 0 to +55°C (+32 to +131°F)
- Protection: IEC IP 67
- Vibration: IEC 68, part 2-6

Material

- Connectors: Nickel-plated brass
- Housing: Nylon

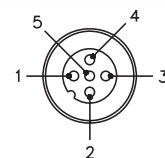
Diagnostics (Physical)

- One LED indicates an I/O fault for the entire station
- LEDs to indicate status of DeviceNet communication



DeviceNet Pinout

Male

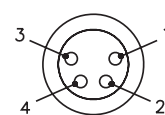


5-Pin

- 1 = Shield
- 2 = V+
- 3 = V-
- 4 = CAN_H
- 5 = CAN_L

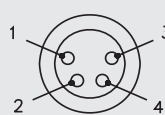
Aux. Power

picofast Male



4-Pin

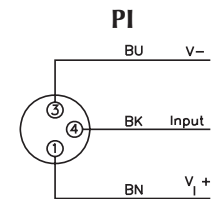
picofast Female



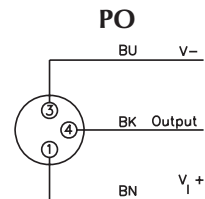
4-Pin

Inputs																	Outputs							Data
Part Number	Input Count	Connectors	Pinout	Inputs per Connector	Sensor Style	Group Diagnostics	Individual Diagnostics	Wire-Break Detection	Output	Connectors	Pinout	Outputs per Connector	Current	Individual Diagnostics	Wire-Break Detection	I/O Map								
	SDNL-0404D-0003	4	0-3	PI	1	PNP				4	4-7	PO	1	0.5 A			1							

Input/Output Connectors



Mating cordset:
PSG 3M-*



Mating cordset:
PSG 3M-*

I/O Data Map 1

	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
In	0	Data from next input modules				I-3	I-2	I-1	I-0
Out	0	Data for next output modules				O-3	O-2	O-1	O-0

PROFIBUS-DP Gateways



- Rugged, Fully Potted Stations
- IP 67 Protection
- Small Footprint
- Automatic Baud Rate Sensing

Electrical

- Operating Current: <75 mA plus sensor currents (from U_B)
- Sensor Current: <500 mA total of all sensors (from U_B)
- Output Current: <500 mA per output (from U_L)

Power Distribution

- Inputs: U_B Power supply
- Outputs: U_L Power supply

Mechanical

- Operating Temperature: 0 to +55°C (+32 to +131°F)
- Protection: IP 67
- Vibration: IEC 68, part 2-6

Material

- Connectors: Nickel-plated brass
- Housing: Nylon

Diagnostics (Physical)

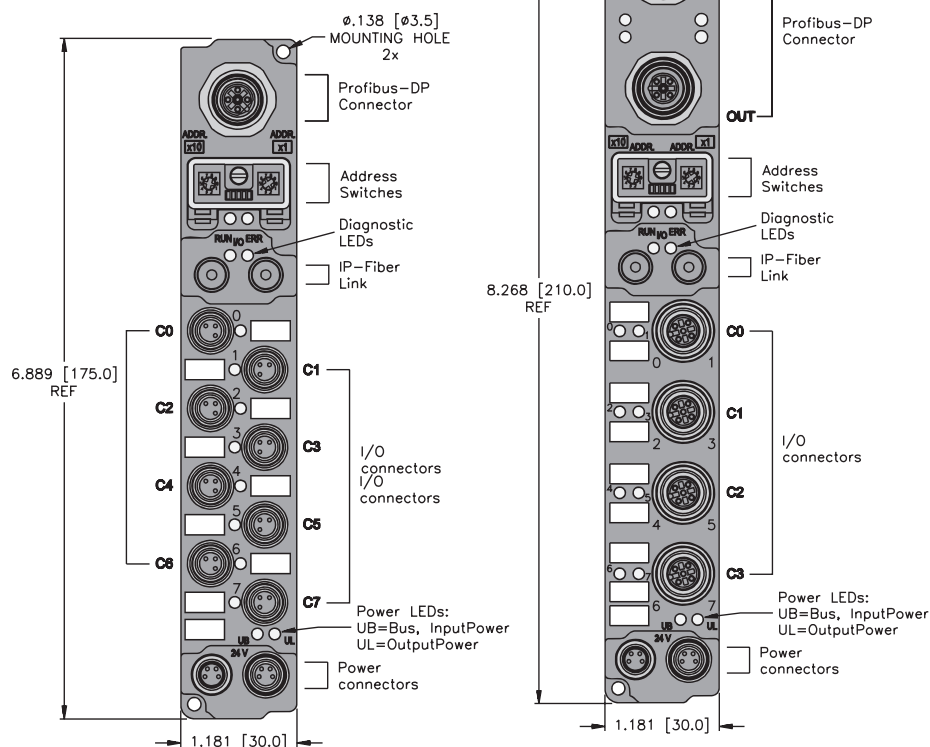
- One LED indicates an I/O fault for the entire station
- LEDs to indicate status of PROFIBUS-DP communication

SDPL-0404D-0003

SDPL-0404D-0004

SDPL-0404D-1003

SDPL-0404D-1004



PROFIBUS *euromast*® Pinouts

Male	Female
5-Pin	5-Pin

1 = 5 VDC 4 = BUS_B
2 = BUS_A 5 = Shield
3 = Gnd

...1003 and ...1004 have both male and female PROFIBUS-DP connectors

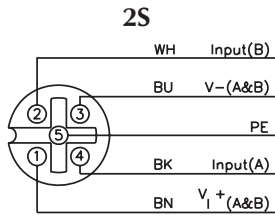
Aux. Power

<i>pico</i> fast Male	<i>pico</i> fast Female
4-Pin	4-Pin

1 = U_B + 3 = Gnd
2 = U_L + 4 = Gnd

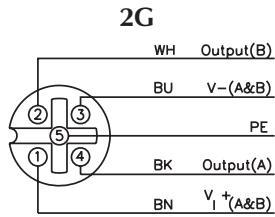
Inputs									Outputs					Data		
Part Number	Input Count	Connectors	Pinout	Inputs per Connector	Sensor Style	Group Diagnostics	Individual Diagnostics	Wire-Break Detection	Output Count	Connectors	Pinout	Outputs per Connector	Current	Individual Diagnostics	Wire-Break Detection	I/O Map
SDPL-0404D-0003	4	0-3	PI	1	PNP				4	4-7	PO	1	0.5 A			1
SDPL-0404D-0004	4	0-3	2S	2	PNP				4	2-3	2G	2	0.5 A			1
SDPL-0404D-1003	4	0-3	PI	1	PNP				4	4-7	PO	1	0.5 A			1
SDPL-0404D-1004	4	0-3	2S	2	PNP				4	2-3	2G	2	0.5 A			1

Input/Output Connectors



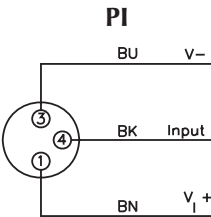
Mating cordset:
RK 4.4T-*-RS 4.4T

Splitter:
VBRS 4.4-2RK 4T-*/*

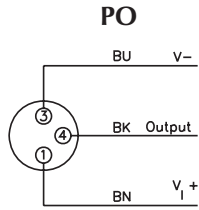


Mating cordset:
RK 4.4T-*-RS 4.4T

Splitter:
VBRS 4.4-2RK 4T-*/*



Mating cordset:
PSG 3M-*



Mating cordset:
PSG 3M-*

I/O Data Map 1

	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
In	0	Data from next input modules				I-3	I-2	I-1	I-0
Out	0	Data for next output modules				O-3	O-2	O-1	O-0

Ethernet/IP Gateways



- Rugged, Fully Potted Stations
- IP 67 Protection
- Small Footprint
- Automatic Baud Rate Sensing

Electrical

- Operating Current: <75 mA plus sensor currents (from U_B)
- Sensor Current: <500 mA total of all sensors (from U_B)
- Output Current: <500 mA per output (from U_L)

Power Distribution

- Inputs: U_B Power supply
- Outputs: U_L Power supply

Mechanical

- Operating Temperature: 0 to +55°C (+32 to +131°F)
- Protection: IP 67
- Vibration: IEC 68, part 2-6

Material

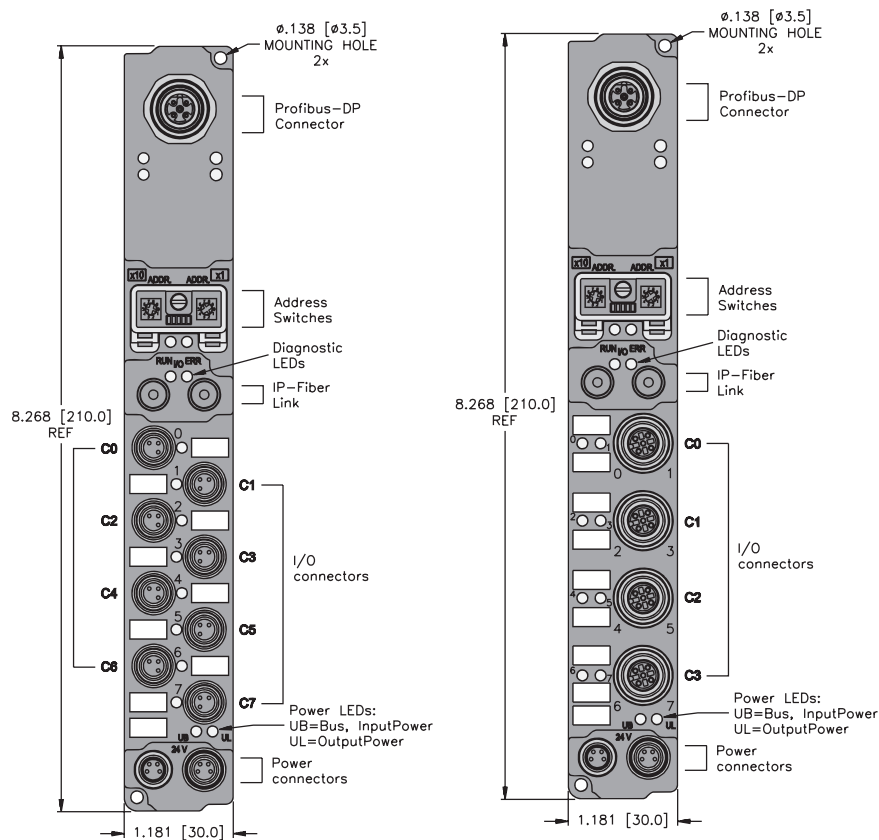
- Connectors: Nickel-plated brass
- Housing: Nylon

Diagnostics (Physical)

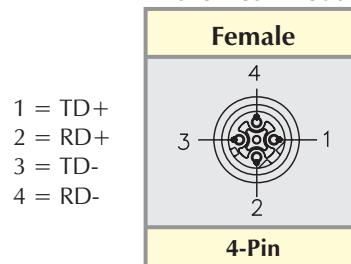
- One LED indicates an I/O fault for the entire station
- LEDs to indicate status of Ethernet communication

SIPL-0404D-0003

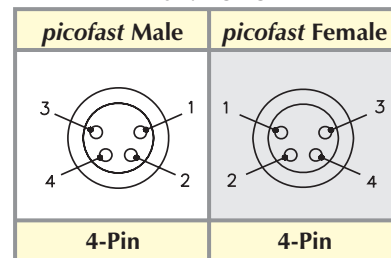
SIPL-0404D-0004



Ethernet Pinout



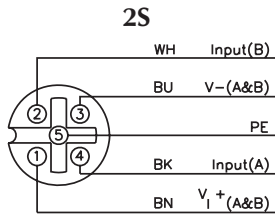
Aux. Power



- 1 = U_B + 3 = Gnd
2 = U_L + 4 = Gnd

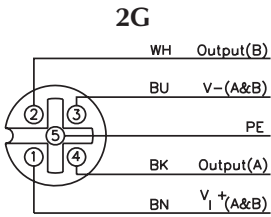
																	Data
Inputs									Outputs								
Part Number	Input Count	Connectors	Pinout	Inputs per Connector	Sensor Style	Group Diagnostics	Individual Diagnostics	Wire-Break Detection	Output Count	Connectors	Pinout	Outputs per Connector	Current	Individual Diagnostics	Wire-Break Detection	I/O Map	
	4	0-3	PI	1	PNP				4	4-7	PO	1	0.5 A			1	
	SIPL-0404D-0003	4	0-3	PI	1	PNP				4	4-7	PO	1	0.5 A			1
SIPL-0404D-0004	4	0-3	2S	2	PNP				4	2-3	2G	2	0.5 A			1	

Input/Output Connectors



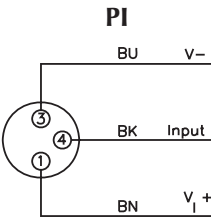
Mating cordset:
RK 4.4T-* -RS 4.4T

Splitter:
VBRS 4.4-2RK 4T-*/*

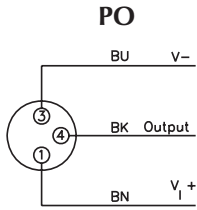


Mating cordset:
RK 4.4T-* -RS 4.4T

Splitter:
VBRS 4.4-2RK 4T-*/*



Mating cordset:
PSG 3M-*



Mating cordset:
PSG 3M-*

I/O Data Map 1

	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
In	0	Data from next input modules				I-3	I-2	I-1	I-0
Out	0	Data for next output modules				O-3	O-2	O-1	O-0

CANopen Gateway



- Rugged, Fully Potted Stations
- IP 67 Protection
- Small Footprint
- Flexible I/O Subnetwork

Electrical

- Operating Current: <75 mA plus sensor currents (from U_B)
- Sensor Current: <500 mA total of all sensors (from U_B)
- Output Current: <500 mA per output (from U_L)

Power Distribution

- Inputs: U_B Power supply
- Outputs: U_L Power supply

Mechanical

- Operating Temperature: 0 to +55°C (+32 to +131°F)
- Protection: IEC IP 67
- Vibration: IEC 68, part 2-6

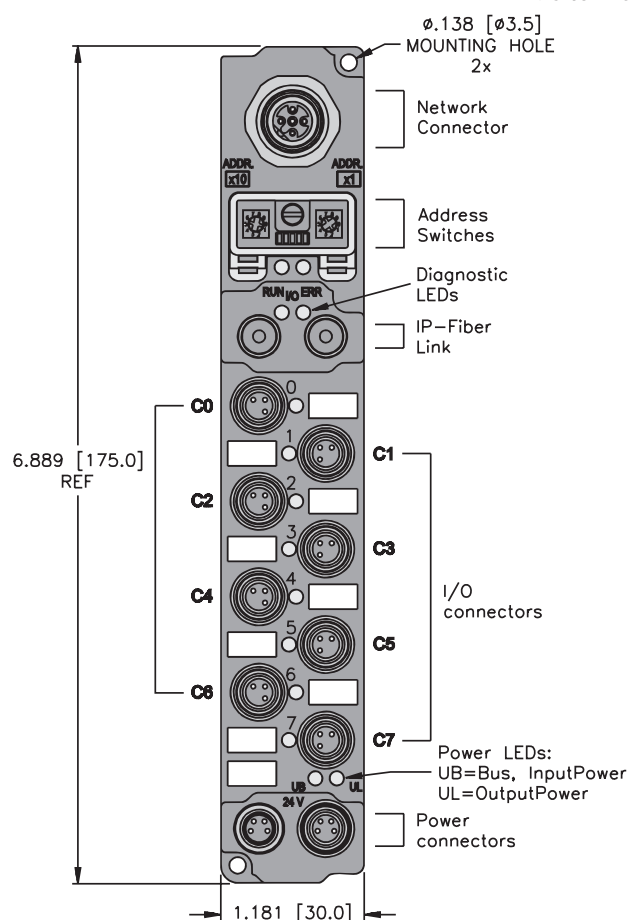
Material

- Connectors: Nickel-plated brass
- Housing: Nylon

Diagnostics (Physical)

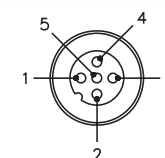
- One LED indicates an I/O fault for the entire station
- LEDs to indicate status of CANopen communication

SCOL-0404D-0003



CANopen Pinout

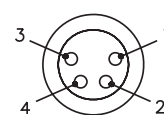
eurofast Male



5-Pin

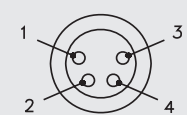
Aux. Power

picofast Male



4-Pin

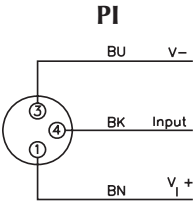
picofast Female



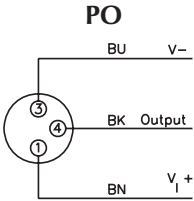
4-Pin

Inputs																	Outputs							Data
Part Number	Input Count	Connectors	Pinout	Inputs per Connector	Sensor Style	Group Diagnostics	Individual Diagnostics	Wire-Break Detection	Output Count	Connectors	Pinout	Outputs per Connector	Current	Individual Diagnostics	Wire-Break Detection	I/O Map								
	SCOL-0404D-0003	4	0-3	PI	1	PNP				4	4-7	PO	1	0.5 A			1							

Input/Output Connectors



Mating cordset:
PSG 3M-*



Mating cordset:
PSG 3M-*

I/O Data Map 1

In	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	0	Data from next input modules			I-3	I-2	I-1	I-0	
Out	0	Data for next output modules			0-3	0-2	0-1	0-0	

Input Module



SNNE-0800D-0008



- Rugged, Fully Potted Stations
- IP 67 Protection
- Small Footprint
- Modular I/O System

Electrical

- Operating Current: <75 mA plus sensor currents (from U_B)
- Sensor Current: <500 mA total of all sensors (from U_B)

Power Distribution

- Inputs: U_B Power supply

Mechanical

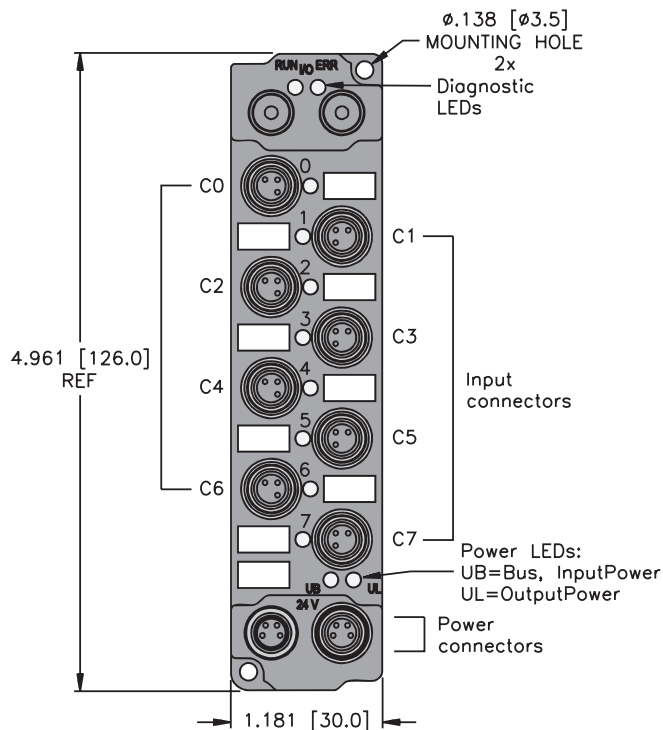
- Operating Temperature: 0 to +55 °C (+32 to +131°F)
- Protection: IEC IP 67
- Vibration: IEC 68, part 2-6

Material

- Connectors: Nickel-plated brass
- Housing: Nylon

Diagnostics (Physical)

- LEDs to indicate status of module and system communication



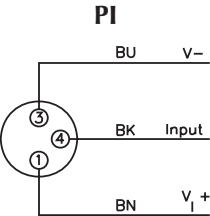
- 1 = U_B +
- 2 = U_L +
- 3 = Gnd
- 4 = Gnd

Aux. Power

<i>picofast</i> Male	<i>picofast</i> Female
4-Pin	4-Pin

Inputs									Data
Part Number	Input Count	Connectors	Pinout	Inputs per Connector	Sensor Style	Group Diagnostics	Individual Diagnostics	Wire-Break Detection	Map
SNNE-0800D-0008	8	0-7	PI	1	PNP				1

Input Connectors



Mating cordset:
PSG 3M-*

I/O Data Map 1

In	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-1	Data from modules to left							
	n	I-7	I-6	I-5	I-4	I-3	I-2	I-1	I-0
	n+1	Data from modules to right							

Output Modules



SNNE-0008D-0006

SNNE-0008D-0002



- Rugged, Fully Potted Stations
- IP 67 Protection

- Small Footprint
- Modular I/O System

Electrical

- Operating Current: <75 mA plus sensor currents (from U_B)
- Output Current: See table on facing page (from U_L)

Power Distribution

- Outputs: U_L Power supply

Mechanical

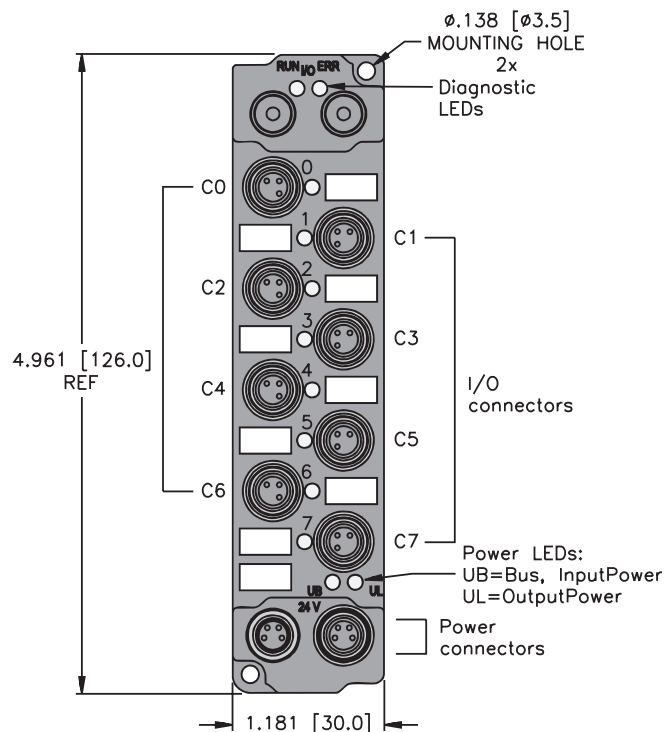
- Operating Temperature: 0 to +55°C (+32 to +131°F)
- Protection: IEC IP 67
- Vibration: IEC 68, part 2-6

Material

- Connectors: Nickel-plated brass
- Housing: Nylon

Diagnostics (Physical)

- LEDs to indicate status of module and system communication



- 1 = $U_B +$
- 2 = $U_L +$
- 3 = GND
- 4 = GND

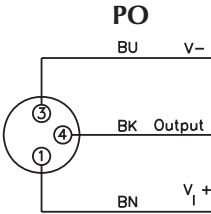
Aux. Power

<i>picofast</i> Male	<i>picofast</i> Female
4-Pin	4-Pin

Outputs								Data
Part Number	Output Count	Connectors	Pinout	Outputs per Connector	Current	Individual Diagnostics	Wire-Break Detection	I/O Map
SNNE-0008D-0006	8	0-7	PO	1	0.5 A			1
SNNE-0008D-0002	8	0-7	PO	1	2 A*			1

*Note: Total output current for the station is limited to 4 A.

Output Connectors



Mating cordset:
PSG 3M-*

I/O Data Map 1

Out	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-1	Data for modules to left							
	n	0-7	0-6	0-5	0-4	0-3	0-2	0-1	0-0
	n+1	Data for modules to right							

Input/Output Modules



SNNE-0404D-0005
SNNE-0404D-0001



- Rugged, Fully Potted Stations
- IP 67 Protection

- Small Footprint
- Modular I/O System

Electrical

- Operating Current: <75 mA plus sensor currents (from U_B)
- Sensor Current: <500 mA total of all sensors (from U_B)
- Output Current: See table on facing page (from U_L)

Power Distribution

- Inputs: U_B Power supply
- Outputs: U_L Power supply

Mechanical

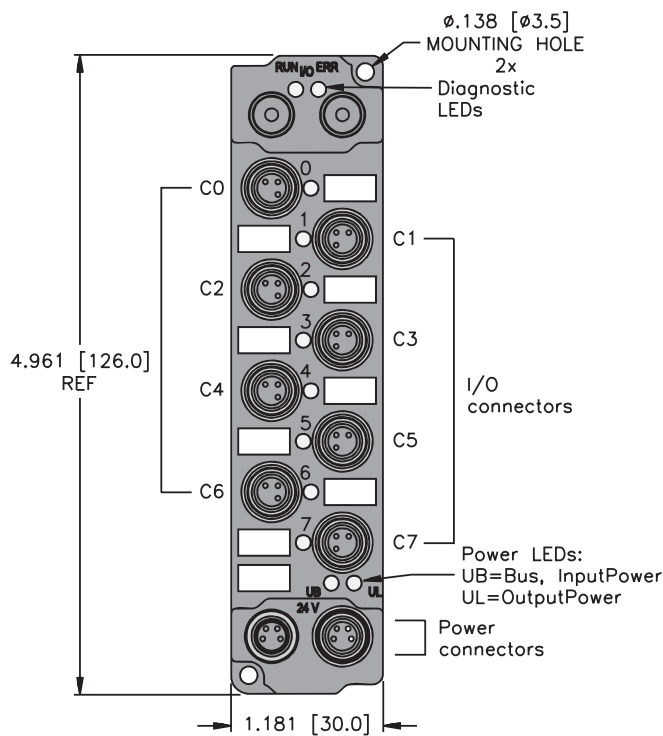
- Operating Temperature: 0 to +55°C (+32 to +131°F)
- Protection: IEC IP 67
- Vibration: IEC 68, part 2-6

Material

- Connectors: Nickel-plated brass
- Housing: Nylon

Diagnostics (Physical)

- LEDs to indicate status of module and system communication



- 1 = U_B+
2 = U_L+
3 = GND
4 = GND

Aux. Power

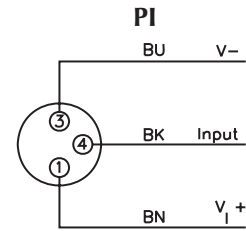
<i>picofast</i> Male	<i>picofast</i> Female
4-Pin	4-Pin

Inputs									Outputs				Data			
Part Number	Input Count	Connectors	Pinout	Inputs per Connector	Sensor Style	Group Diagnostics	Individual Diagnostics	Wire-Break Detection	Output Count	Connectors	Pinout	Outputs per Connector	Current	Individual Diagnostics	Wire-Break Detection	I/O Map
SNNE-0404D-0005	4	0-3	PI	1	PNP				4	4-7	PO	1	2 A			1
SNNE-0404D-0001	4	0-3	PI	1	PNP				4	4-7	PO	1	0.5 A			1

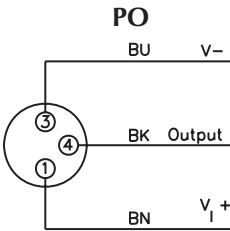
Note: Total output current for station is limited to 4 A.

piconet

Input/Output Connectors



Mating cordset:
PSG 3M-*



Mating cordset:
PSG 3M-*

I/O Data Map 1

In	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-1	Data from modules to left							
	n	Data for next module				I-3	I-2	I-1	I-0
	n+1	Data from modules to right							
Out	-1	Data for modules to left							
	n	Data from next module				0-3	0-2	0-1	0-0
	n+1	Data for modules to right							

Input/Output Modules



- Rugged, Fully Potted Stations
- IP 67 Protection
- Small Footprint
- Modular I/O System

Electrical

- Operating Current: <25 mA plus sensor currents (from U_B)
- Sensor Current: <500 mA total of all sensors (from U_B)
- Output Current: 0.5 A (from U_L)

Power Distribution

- Inputs: U_B Power supply
- Outputs: U_L Power supply

Mechanical

- Operating Temperature: 0 to +55°C (+32 to +131°F)
- Protection: IEC IP 67
- Vibration: IEC 68, part 2-6

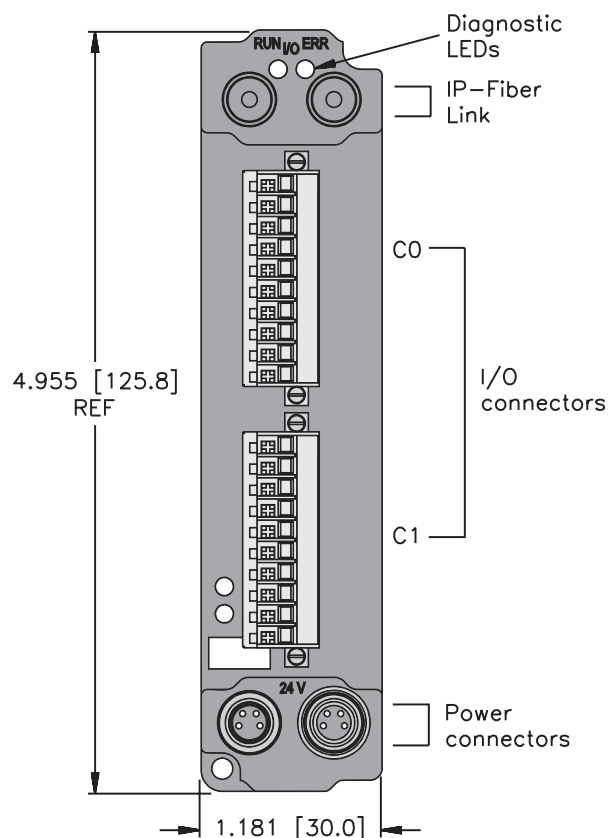
Material

- Connectors: IP20 Tension clamp terminals
- Housing: Nylon

SNNE-0808D-0003

Diagnostics (Physical)

- LEDs to indicate status of module and system communication



Aux. Power

- 1 = U_B +
- 2 = U_L +
- 3 = GND
- 4 = GND

<i>picofast</i> Male	<i>picofast</i> Female
4-Pin	4-Pin

Inputs										Outputs					Data	
Part Number	Input Count	Connectors	Pinout	Inputs per Connector	Sensor Style	Group Diagnostics	Individual Diagnostics	Wire-Break Detection	Output Count	Connectors	Pinout	Outputs per Connector	Current	Individual Diagnostics	Wire-Break Detection	I/O Map
	SNNE-0808D-0003	8	0	TI	8	PNP				8	2	PO	8	0.5 A		

Note: Total output current for station is limited to 4 A.

Input/Output Connectors

piconet

I/O Data Map 1

In	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-1	Data from modules to left							
	n	I-7	I-6	I-5	I-4	I-3	I-2	I-1	I-0
	n+1	Data from modules to right							
Out	-1	Data for modules to left							
	n	O-7	O-8	O-9	O-4	O-3	O-2	O-1	O-0
	n+1	Data for modules to right							

Analog Input Stations



SNNE-40A-0005

SNNE-40A-0007



- Rugged, Fully Potted Stations
- IP 67 Protection
- Small Footprint
- Modular I/O System

Electrical

- Operating Current: <75 mA plus sensor currents (from U_B)

Power Distribution

- Inputs: U_B Power supply

Mechanical

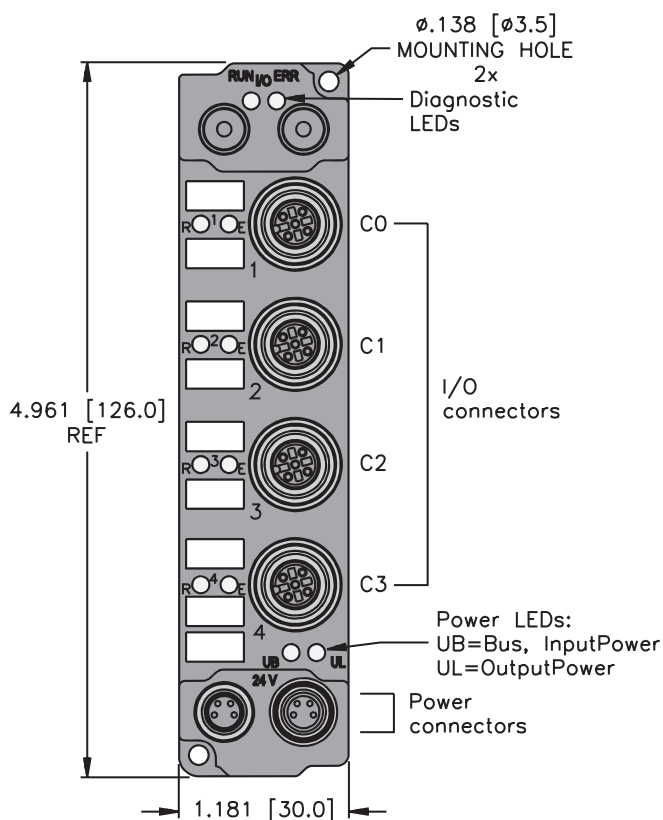
- Operating Temperature: 0 to +55 °C (+32 to +131°F)
- Protection: IEC IP 67
- Vibration: IEC 68, part 2-6

Material

- Connectors: Nickel-plated brass
- Housing: Nylon

Diagnostics (Physical)

- LEDs to indicate status of module and system communication



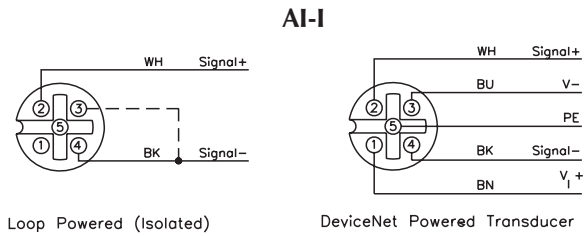
Aux. Power

<i>picofast</i> Male	<i>picofast</i> Female
4-Pin	4-Pin

- 1 = U_B +
- 2 = U_L +
- 3 = GND
- 4 = GND

Inputs									Data
Part Number	Input Count	Connectors	Pinout	Inputs per Connector	Sensor Style	Group Diagnostics	Individual Diagnostics	Wire-Break Detection	I/O Map
SNNE-40A-0005	4	0-3	AI	1	0 to 10 V				1
SNNE-40A-0007	4	0-3	AI	1	4 to 20 mA				1

Input/Output Connectors



Mating cordset:

Isolated Loop: RK 4.5T-*M-RS 4.5T/S653
Loop Powered: RK 4.5T-*M-RS 4.5T/LPS/S653

Applications:

TURCK Sensors: LU; RK 4.4T-*RS 4.4T/S1118
LI; RK 4.4T-*RS 4.4T/S1120

I/O Data Map 1

In	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-1	Data from modules to left							
	n	Channel 0, MSB							
	n+1	Channel 0, LSB							
	n+2	Channel 1, MSB							
	n+3	Channel 1, LSB							
	n+4	Channel 2, MSB							
	n+5	Channel 2, LSB							
	n+6	Channel 3, MSB							
	n+7	Channel 3, LSB							
	n+8	Data from modules to right							

Temperature Input Modules



SNNE-40A-0004

SNNE-40A-0009



- Rugged, Fully Potted Stations
- IP 67 Protection

- Small Footprint
- Modular I/O System

Electrical

- Operating Current: <75 mA plus sensor currents (from U_B)
- Input Type: Pt100, Pt200, Pt500, Pt1000, Ni100, Ni120, Ni1000 RTDs (...0009) Type J,K,L,B,E,N,R,S,T,U thermocouples (...0004)

Power Distribution

- Inputs: U_B Power supply

Mechanical

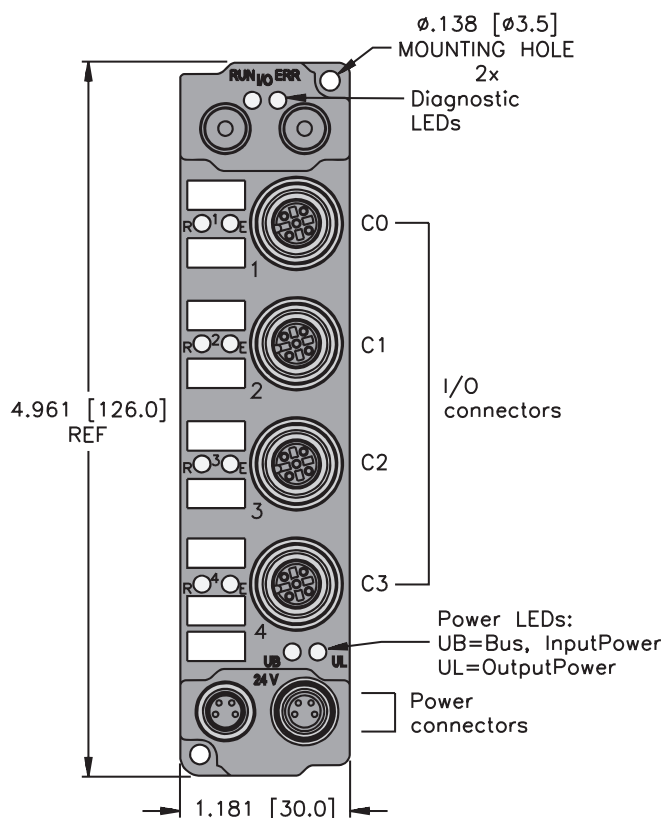
- Operating Temperature: 0 to +55 °C (+32 to +131°F)
- Protection: IEC IP 67
- Vibration: IEC 68, part 2-6

Material

- Connectors: Nickel-plated brass
- Housing: Nylon

Diagnostics (Physical)

- LEDs to indicate status of module and system communication



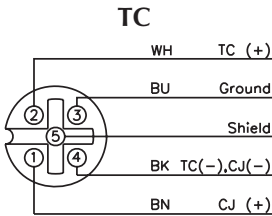
Aux. Power

<i>picofast</i> Male	<i>picofast</i> Female
4-Pin	4-Pin

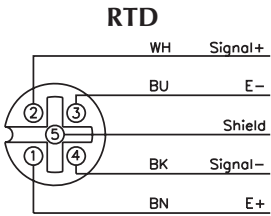
- 1 = U_B+
2 = U_L+
3 = GND
4 = GND

Inputs									Data
Part Number	Input Count	Connectors	Pinout	Inputs per Connector	Sensor Style	Group Diagnostics	Individual Diagnostics	Wire-Break Detection	I/O Map
SNNE-40A-0004	4	0-3	TC	1	Thermocouple				1
SNNE-40A-0009	4	0-3	RTD	1	RTD				1

Input/Output Connectors



Mating cordset:
RK 4.5T-* -RS 4.5T



Mating cordset:
RK 4.5T-* -RS 4.5T

I/O Data Map 1

In	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-1	Data from modules to left							
	n	Channel 0, MSB							
	n+1	Channel 0, LSB							
	n+2	Channel 1, MSB							
	n+3	Channel 1, LSB							
	n+4	Channel 2, MSB							
	n+5	Channel 2, LSB							
	n+6	Channel 3, MSB							
	n+7	Channel 3, LSB							
	n+8	Data from modules to right							

Analog Output Stations



SNNE-04A-0009

SNNE-04A-0007



- Rugged, Fully Potted Stations
- IP 67 Protection

- Small Footprint
- Modular I/O System

Electrical

- Operating Current: <75 mA (from U_B)

Power Distribution

- Outputs: U_L Power supply

Mechanical

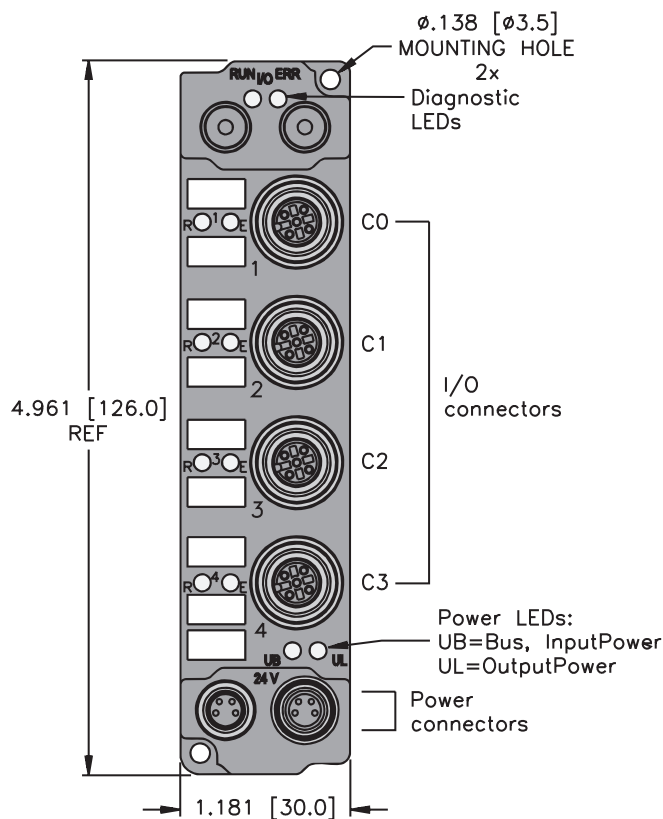
- Operating Temperature: 0 to +55 °C (+32 to +131°F)
- Protection: IEC IP 67
- Vibration: IEC 68, part 2-6

Material

- Connectors: Nickel-plated brass
- Housing: Nylon

Diagnostics (Physical)

- LEDs to indicate status of module and system communication



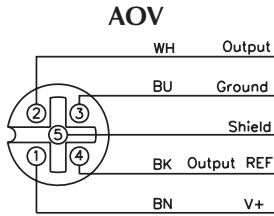
Aux. Power

<i>picofast</i> Male	<i>picofast</i> Female
4-Pin	4-Pin

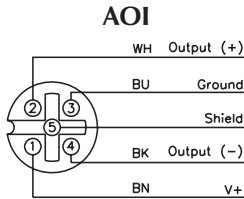
1 = U_B +
2 = U_L +
3 = GND
4 = GND

Outputs								Data
Part Number	Output Count	Connectors	Pinout	Outputs per Connector	Output Style	Individual Diagnostics	Wire-Break Detection	I/O Map
SNNE-04A-0009	4	0-3	AOI	1	0 to 20 mA			1
SNNE-04A-0007	4	0-3	AOV	1	-10/0 to 10 V			1

Output Connectors



Mating cordset:
RK 4.5T-*-RS 4.5T



DeviceNet Powered Transducer

Mating cordset:
RK 4.5T-*-RS 4.5T

I/O Data Map 1

Out	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-1	Data for modules to left							
	n	Channel 0, MSB							
	n+1	Channel 0, LSB							
	n+2	Channel 1, MSB							
	n+3	Channel 1, LSB							
	n+4	Channel 2, MSB							
	n+5	Channel 2, LSB							
	n+6	Channel 3, MSB							
	n+7	Channel 3, LSB							
	n+8	Data for modules to right							

Counter Station



SNNE-0202D-0003



- Rugged, Fully Potted Stations
- IP 67 Protection
- Small Footprint
- Automatic Baud Rate Sensing

Electrical

- Operating Current: <75 mA plus device currents (from U_B)
- Input Current: <500 mA total of all sensors (from U_B)
- Output Current: <500 mA per output (from U_L)
- Maximum Frequency: 100 KHz

Power Distribution

- Inputs: U_B Power supply
- Outputs: U_L Power supply

Mechanical

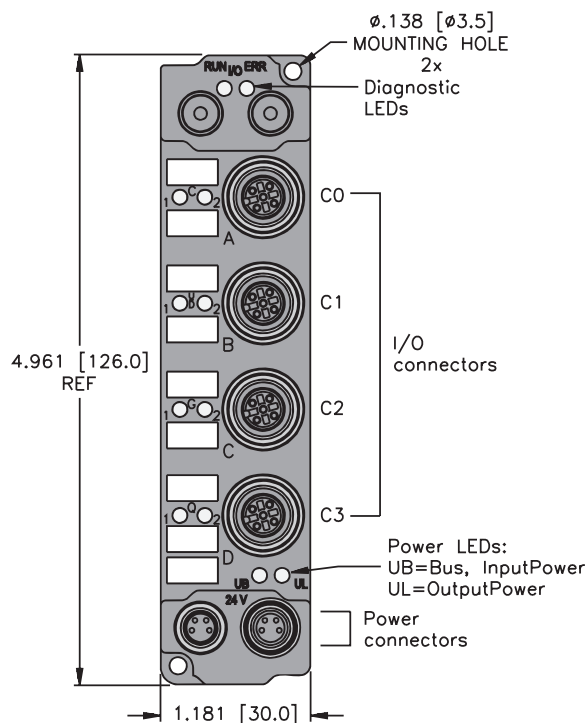
- Operating Temperature: 0 to +55°C (+32 to +131°F)
- Protection: IEC IP 67
- Vibration: IEC 68, part 2-6

Material

- Connectors: Nickel-plated brass
- Housing: Nylon

Diagnostics (Physical)

- One LED indicates an I/O fault for the entire station
- LEDs to indicate status of piconet communication



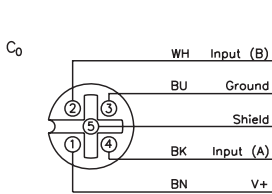
Aux. Power

<i>picofast</i> Male	<i>picofast</i> Female
4-Pin	4-Pin

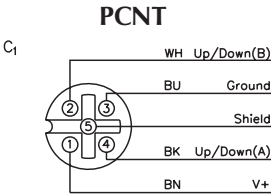
- 1 = U_B+
2 = U_L+
3 = Gnd_B
4 = Gnd_L

Inputs										Outputs						Data
Part Number	Input Count	Connectors	Pinout	Inputs per Connector	Sensor Style	Group Diagnostics	Individual Diagnostics	Wire-Break Detection	Output Count	Connectors	Pinout	Outputs per Connector	Current	Individual Diagnostics	Wire-Break Detection	I/O Map
	SNNE-0202D-0003	2	0-3	PCNT	2	Counter				2	0-3	PCNT	2	0.5 A		

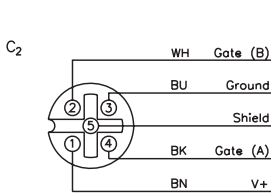
Input/Output Connectors



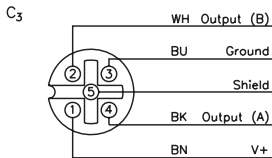
Mating cordset:
RK 4.5T-*-RS 4.5T



Mating cordset:
RK 4.5T-*-RS 4.5T



Mating cordset:
RK 4.5T-*-RS 4.5T



Mating cordset:
RK 4.5T-*-RS 4.5T

I/O Data Map 1

	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
In	-1	Data from previous modules							
	n	Channel 0 - Status							
	n+1	Channel 0, Byte 3 (MSB)							
	n+2	Channel 0, Byte 2							
	n+3	Channel 0, Byte 1							
	n+4	Channel 0, Byte 0 (LSB)							
	n+5	Channel 1 - Status							
	n+6	Channel 1, Byte 3 (MSB)							
	n+7	Channel 1, Byte 2							
	n+8	Channel 1, Byte 1							
	n+9	Channel 1, Byte 0 (LSB)							
Out	n+10	Data from next modules							
	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-1	Data for previous modules							
	n	Channel 0 - Control							
	n+1	Channel 1 - Control							

Incremental Encoder Station



- Rugged, Fully Potted Stations
- IP 67 Protection
- Small Footprint
- Automatic Baud Rate Sensing

Electrical

- Operating Current: <75 mA plus device currents (from U_B)

Power Distribution

- Inputs: U_B Power supply

Mechanical

- Operating Temperature: 0 to +55°C (+32 to +131°F)
- Protection: IEC IP 67
- Vibration: IEC 68, part 2-6

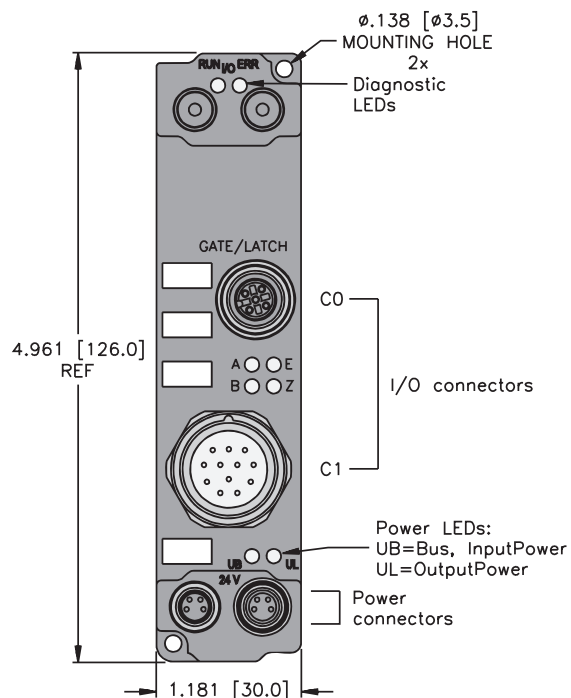
Material

- Connectors: Nickel-plated brass
- Housing: Nylon

Diagnostics (Physical)

- One LED indicates an I/O fault for the entire station
- LEDs to indicate status of Piconet communication

SNNE-10S-0001



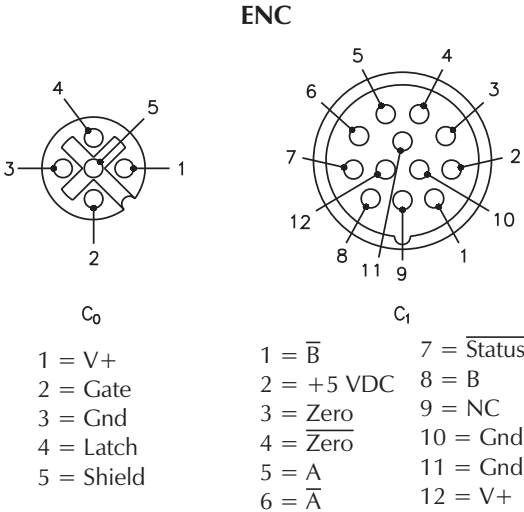
Aux. Power

<i>pico</i> fast® Male	<i>pico</i> fast® Female
4-Pin	4-Pin

- 1 = U_B+
 2 = U_L+
 3 = Gnd
 4 = Gnd

Inputs									Data
Part Number	Input Count	Connectors	Pinout	Inputs per Connector	Sensor Style	Group Diagnostics	Individual Diagnostics	Wire-Break Detection	I/O Map
SNNE-10S-0001	1	0-1	ENC	1	Encoder				1

Input/Output Connectors



I/O Data Map 1

	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
In	-1	Data from previous modules							
	n	Counter - Status							
	n+1	Count Value - High (MSB)							
	n+2	Count Value - Low (LSB)							
	n+3	Data from next modules							
Out	-1	Data for previous modules							
	n	Counter - Control							
	n+1	Set Value - High (MSB)							
	n+2	Set Value - Low (LSB)							
	n+3	Data for next modules							

Serial Interface Modules



- Rugged, Fully Potted Stations
- IP 67 Protection
- Small Footprint
- Modular I/O System

Electrical

- Operating Current: <75 mA (from U_B)

Mechanical

- Operating Temperature : 0 to +55 °C (+32 to +131°F)
- Protection: IEC IP 67
- Vibration: IEC 68, part 2-6

Material

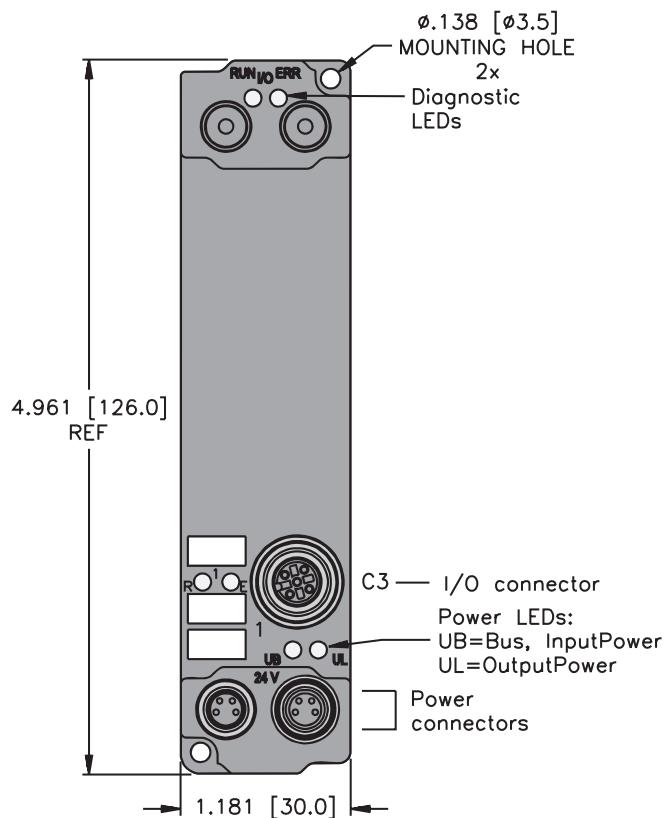
- Connectors: Nickel-plated brass
- Housing: Nylon

Diagnostics (Physical)

- LEDs to indicate status of module and system communication

SNNE-10S-0002

SNNE-10S-0004

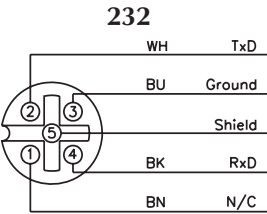


- 1 = $U_B +$
- 2 = $U_L +$
- 3 = GND
- 4 = GND

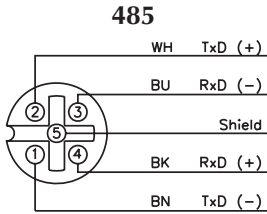
Aux. Power	
<i>picofast</i> Male	<i>picofast</i> Female
4-Pin	4-Pin

Inputs																	Outputs					Data
Part Number	Channel Count	Connectors	Pinout	Channels per Connector	Interface Type	Data bytes per transaction	Individual Diagnostics	Wire-Break Detection	Output Count	Connectors	Pinout	Outputs per Connector	Current	Individual Diagnostics	Wire-Break Detection	I/O Map						
	SNNE-10S-0002	1	0	232	1	RS232	3...5			1	3	232	1			1						
	SNNE-10S-0004	1	3	485	1	RS485/422	3...5			1	3	485	1			1						

Input/Output Connectors



Mating cordset:
RK 4.5T-*-RS 4.5T



Mating cordset:
RK 4.5T-*-RS 4.5T

I/O Data Map 1

	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
In	-1	Data from modules to left							
	n	Data Byte 0							
	n+1	Status							
	n+2	Data Byte 2							
	n+3	Data Byte 1							
	n+4	Data from modules to right							
Out	-1	Data for modules to left							
	n	Data Byte 0							
	n+1	Control							
	n+2	Data Byte 2							
	n+3	Data Byte 1							
	n+4	Data for modules to right							

* Note: Default configuration of 3 data bytes shown. Up to 5 data bytes can be transferred. Consult user manual for details.

SSI Station



- Rugged, Fully Potted Stations
- IP 67 Protection
- Small Footprint
- Automatic Baud Rate Sensing

Electrical

- Operating Current: <75 mA plus sensor currents (from U_B)

Mechanical

- Operating Temperature: 0 to +55°C (+32 to +131°F)
- Protection: IEC IP 67
- Vibration: IEC 68, part 2-6

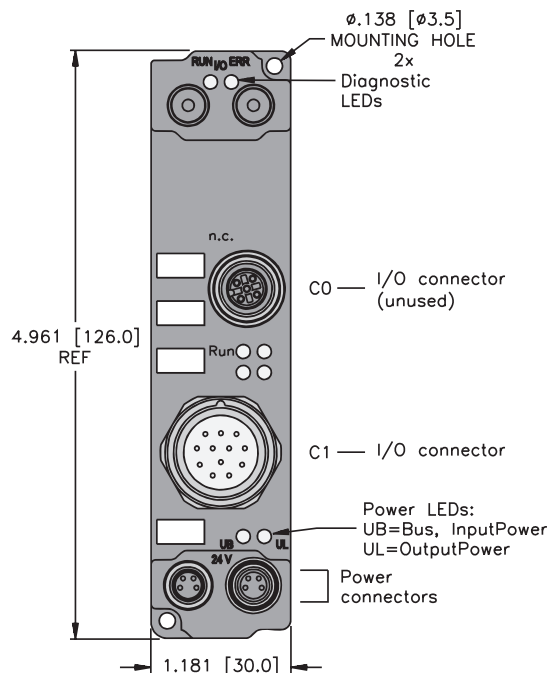
Material

- Connectors: Nickel-plated brass
- Housing: Nylon

Diagnostics (Physical)

- One LED indicates an I/O fault for the entire station
- LEDs to indicate status of Piconet communication

SNNE-10S-0005



Aux. Power

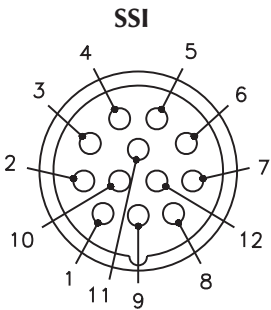
- 1 = U_B+
2 = U_L+
3 = Gnd
4 = Gnd

<i>picofast</i> Male	<i>picofast</i> Female
4-Pin	4-Pin

Inputs									Data
Part Number	Channel Count	Connectors	Pinout	Channels per Connector	Interface Type	Data bytes per transaction	Individual Diagnostics	Wire-Break Detection	I/O Map
SNNE-10S-0005	1	0		1	SSI	4			1

Input Connectors

- 1 = Clock-
- 2 = Clock+
- 3 = Data+
- 4 = Data-
- 5 = NC
- 6 = NC
- 7 = NC
- 8 = NC
- 9 = NC
- 10 = NC
- 11 = V+
- 12 = Ground



Mating cordset:
CKM 12-12-*/S817

I/O Data Map 1

In	Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
	-1	Data from previous modules							
	n	Data Byte 1							
	n+1	Data Byte 0 (LSB)							
	n+2	Data Byte 3 (MSB)							
	n+4	Data from next modules							
	n+3	Data Byte 2							

* Note: One additional status byte (in) and control byte (out) may be configured.

Accessories

Housing	Part Number	Description
Clip for Fiber Optic Connections 	SFOL-CLIP	Secures fiber optic connectors in place on <i>piconet</i> subnetwork systems.
Fiber Optic Bridge 	SFOB-0001	Power bridge connector for use when close-mounting <i>piconet</i> subnetwork (SNNE) nodes.
Power Bridge 	IPSKP4-0.12-SSP4/S90/S2154	Power bridge connector for use when close-mounting <i>piconet</i> subnetwork (SNNE) nodes.
Programming Cable 	ADAPTER CABLE - PICONET	Cable for connecting piconet system to I/O Assistant for commissioning and debugging
Fiber Optic Cable	SFOL-*M	Fiber Optic cable for connecting piconet network devices to IP link
Power Distribution Block 	8MBM8 4MBM4	Uses minifast power connection and distributes it to M8 connectors for Piconet devices

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The screenshots show the TURCK USA website interface. The top screenshot displays the main navigation menu with links for Home, Products, Support, and Literature. A search bar is prominently featured. The bottom screenshot shows a 'Documentation Search Results' page with a table of search results. The table includes columns for Part Number, ID Number, Edition Price, Format, and a list of available files (Data Sheet, CAD, Symbols, Wiring). Below the table, there are links to download files or request a quote, and a contact form for a TURCK representative.

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