

DAT 8014

GENERAL DESCRIPTION

The DAT8014 module is a Modbus TCP server unit that can convert up to 4 analog signals applied to the input in engineering units in digital format. The inputs can be connected to sensors RTD or resistance to two or three wires. The input channels are electrically isolated from each other. The device guarantees high accuracy and a stable measure versus time and temperature. In order to ensure the safety plant, the device is provided with a Watch-Dog Timer system. The Ethernet interface allows reading and writing in real time the values of the internal registers of the device. The LEDs of signalling of Ethernet activity and power supply allow a direct monitoring of the system functionality. The built-in Web Server of DAT8014 allows the remote visualization, acquisition of the analog inputs and the access to the main Ethernet programming parameters. The device is also configurable by the software Dev9K, a free IDE developed by DATEXEL. The connection is made by removable screw-terminals (inputs and power supply) and RJ45 plug (Ethernet).

The device DAT8014 realizes a full electrical isolation between the lines, introducing a valid protection against the effects of all ground loops eventually existing in industrial applications. The device is housed in a rough self-extinguishing plastic enclosure which, thanks to its thin profile of 22.5 mm only, allows a high density mounting on EN-50022 standard DIN rail.

FEATURES

- Interface Ethernet 10/100 Base-T, Modbus TCP Server
- 4 isolated input channels
- Input configurable for RTD, Resistance and Potentiometer
- Integrated web server for acquiring the status of the analog inputs via browser
- Remotely programmable
- Connection by removable screw-terminals
- LED signalling for Link/Act Ethernet, power supply
- Galvanic isolation on all the ways
- EMC compliant – CE mark
- In compliance with Ethernet IEEE 802.3
- In compliance to EN-50022 DIN rail mounting



Employments sectors


POWER SUPPLY

Power supply voltage	14 .. 30 Vdc
Reverse polarity protection	60 Vdc max
Consumption (standby)	60 mA tip@ 24 Vdc
Consumption (operative)	75 mA max@ 24 Vdc 115 mA max@ 14 Vdc

ISOLATION

Power Supply / Ethernet	1500 Vac, 50 Hz, 1 min
Inputs / Power supply	1500 Vac, 50 Hz, 1 min
Inputs / Ethernet	1500 Vac, 50 Hz, 1 min
Input / Input	1500 Vac, 50 Hz, 1 min

CONNECTIONS

Ethernet	RJ-45 (on terminals side)
Inputs	Removable screw-terminals
Power Supply	Removable screw-terminals

EMC (for industrial environments)

Immunity	EN 61000-6-2
Emission	EN 61000-6-4

ENVIRONMENTAL CONDITIONS

Operative Temperature	-10°C .. +60°C
Storage Temperature	-40°C.. +85°C
Humidity (not condensed)	0 .. 90 %
Maximum Altitude	2000 m slm
Installation	Indoor
Category of installation	II
Pollution Degree	2

MECHANICAL SPECIFICATIONS

Material	Self-extinguish plastic
IP Code	IP20
Wiring	wires with diameter 0.8±2.1 mm² AWG 14-18
Tightening Torque	0.5 N m
Mounting	in compliance to DIN rail standard EN-50022 and EN-50035
Weight	about 160g

INPUT

Input Type	Min	Max
RTD 2 or 3 Wires		
Pt100	-200 °C	850 °C
Pt1000	-200 °C	200 °C
Ni100	-60 °C	180 °C
Ni1000	-60 °C	150 °C

RES. 2 or 3Wires

Low	0 Ω	500 Ω
High	0 Ω	2000 Ω

POT. (nom. value)

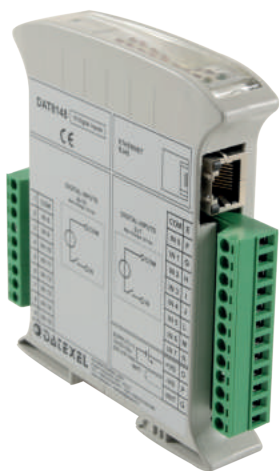
20 Ω 50 kΩ

INPUT

Input Accuracy (1)	
RTD	± 0.05 % f.s.
Resistance	± 0.05 % f.s.
Potentiometer	± 0.05 % f.s.
Linearity (1)	
RTD	± 0.1 % f.s.
Lead wire resistance influence (1)	
RTD/res.3 wires (50 Ω max balanced)	0.05 % f.s./Ω
RTD excitation current	
Typical	0.370 mA
Thermal drift (1)	
Full Scale	±0.01 %/°C
Sampling time (4 channels)	150 ms
Warm-up time	3 min

(1) Referred to input Span (difference between max. and min. values)

DAT 8015



GENERAL DESCRIPTION

The DAT8015 module is a Modbus TCP server unit that can convert up to 8 analog signals applied to the input in engineering units in digital format. The inputs can be connected to sensors with current or voltage output. The input channels are electrically isolated from each other. For each input channel is provided an isolated power source for the power supply of passive sensors. The device guarantees high accuracy and a stable measure versus time and temperature. In order to ensure the safety plant, the device is provided with a Watch-Dog Timer system. The Ethernet interface allows reading and writing in real time the values of the internal registers of the device. The LEDs of signalling of Ethernet activity and power supply allow a direct monitoring of the system functionality. The built-in Web Server of DAT8015 allows the remote visualization, acquisition of the analog inputs and the access to the main Ethernet programming parameters. The device is also configurable by the software Dev9K, a free IDE developed by DATExEL. The connection is made by removable screw-terminals (inputs and power supply) and RJ45 plug (Ethernet). The device DAT8015 realizes a full electrical isolation between the lines, introducing a valid protection against the effects of all ground loops eventually existing in industrial applications. The device is housed in a rough self-extinguishing plastic enclosure which, thanks to its thin profile of 22.5 mm only, allows a high density mounting on EN-50022 standard DIN rail.

FEATURES

- Interface Ethernet 10/100 Base-T, Modbus TCP Server
- 4 isolated input channels
- Analog inputs for mA and Volt
- Isolated power source for each channel to power passive sensors
- Integrated web server to acquire the status of the analog inputs via browser
- Remotely programmable
- Connection by removable screw-terminals
- LED signalling for Link/Act Ethernet, power supply
- Galvanic isolation on all the ways
- EMC compliant – CE mark
- In compliance with Ethernet IEEE 802.3
- In compliance to EN-50022 DIN rail mounting



Employments sectors



POWER SUPPLY

Power supply voltage	20 .. 30 Vdc
Reverse polarity protection	60 Vdc max
Consumption (Not Operative Aux)	85 mA tip@ 24 Vdc 100 mA max@ 20 Vdc
Consumption (**)	150 mA max@ 24 Vdc 170 mA max@ 20 Vdc

ISOLATION

Power Supply / Ethernet	1500 Vac, 50 Hz, 1 min
Inputs / Power supply	1500 Vac, 50 Hz, 1 min
Inputs / Ethernet	1500 Vac, 50 Hz, 1 min
Input / Input	1500 Vac, 50 Hz, 1 min

CONNECTIONS

Ethernet	RJ-45 (on terminal side)
Inputs	removable screw terminal
Power Supply	removable screw terminal

EMC (for industrial environments)

Immunity	EN 61000-6-2
Emission	EN 61000-6-4

ENVIRONMENTAL CONDITIONS

Operative Temperature	-10°C .. +60°C
Storage Temperature	-40°C.. +85°C
Humidity (not condensed)	0 .. 90 %
Maximum Altitude	2000 m slm
Installation	Indoor
Category of installation	II
Pollution Degree	2

MECHANICAL SPECIFICATIONS

Material	Self-extinguish plastic
IP Code	IP20
Wirings	wires with diameter 0.8÷2.1 mm² AWG 14-18
Tightening Torque	0.5 N m
Mounting	in compliance to DIN rail standard EN-50022
Weight	about 160 gr.

INPUT

Input Type	Min	Max
Current		
mA	-20 mA	+20 mA
Voltage		
Volt	-10 V	+10 V

INPUT

Input Accuracy (1)	
mA	± 0.05 % f.s.
Volt	± 0.05 % f.s.
Linearity (1)	
mA	± 0.1 % f.s.
Volt	± 0.1 % f.s.
Input Impedance (Volt)	>= 1 M Ω
Input Impedance (mA)	22 Ω
Thermal drift (1)	
Full Scale	±0.01 %/°C
Sampling time (4 channels)	
	150 ms
Auxiliary Supply (for each channel)	
	12 Vdc min @ 20 mA
Short Circuit Current Auxiliary Supply	
	28 mA

(1) Referred to input Span
(difference between max. and min. values)

(**) 4 Operative Auxiliary Supply @20mA

DAT 8016

GENERAL DESCRIPTION

The DAT8016 module is a Modbus TCP server unit that can convert up to 4 analog signals applied to the input in engineering units in digital format. The inputs can be connected to sensors with mV output or thermocouple. The input channels are electrically isolated from each other. The device guarantees high accuracy and a stable measure versus time and temperature. In order to ensure the safety plant, the device is provided with a Watch-Dog Timer system. The Ethernet interface allows reading and writing in real time the values of the internal registers of the device. The LEDs of signalling of Ethernet activity and power supply allow a direct monitoring of the system functionality. The built-in Web Server of DAT8016 allows the remote visualization, acquisition of the analog inputs and the access to the main Ethernet programming parameters. The device is also configurable by the software Dev9K, a free IDE developed by DATEXEL. The connection is made by removable screw-terminals (inputs and power supply) and RJ45 plug (Ethernet). The device DAT8016 realizes a full electrical isolation between the lines, introducing a valid protection against the effects of all ground loops eventually existing in industrial applications. The device is housed in a rough self-extinguishing plastic enclosure which, thanks to its thin profile of 22.5 mm only, allows a high density mounting on EN-50022 standard DIN rail.

FEATURES

- Interface Ethernet 10/100 Base-T, Modbus TCP Server
- 4 isolated input channels
- Input configurable for mV and Tc
- Integrated web server for acquiring the status of the analog inputs via browser
- Remotely programmable
- Connection by removable screw-terminals
- LED signalling for Link/Act Ethernet, power supply
- Galvanic isolation on all the ways
- EMC compliant – CE mark
- In compliance with Ethernet IEEE 802.3
- In compliance to EN-50022 DIN rail mounting



Employments sectors


POWER SUPPLY

Power supply voltage	14 .. 30 Vdc
Reverse polarity protection	60 Vdc max
Consumption (standby)	60 mA tip@ 24 Vdc
Consumption (operative)	75 mA max@ 24 Vdc 115 mA max@ 14 Vdc

ISOLATION

Power Supply / Ethernet	1500 Vac, 50 Hz, 1 min
Inputs / Power supply	1500 Vac, 50 Hz, 1 min
Inputs / Ethernet	1500 Vac, 50 Hz, 1 min
Input / Input	1500 Vac, 50 Hz, 1 min

CONNECTIONS

Ethernet	RJ-45 (on terminals side)
Inputs	Removable screw-terminals
Power Supply	Removable screw-terminals

EMC (for industrial environments)

Immunity	EN 61000-6-2
Emission	EN 61000-6-4

ENVIRONMENTAL CONDITIONS

Operative Temperature	-10°C .. +60°C
Storage Temperature	-40°C.. +85°C
Humidity (not condensed)	0 .. 90 %
Maximum Altitude	2000 m
Installation	Indoor
Category of installation	II
Pollution Degree	2

MECHANICAL SPECIFICATIONS

Material	Self-extinguish plastic
IP Code	IP20
Wiring	wires with diameter 0.8±2.1 mm² AWG 14-18
Tightening Torque	0.5 N m
Mounting	in compliance to DIN rail standard EN-50022
Weight	about 160g.

INPUT

Input Type	Min	Max
Voltage		
mV	-250 mV	+250 mV
Thermocouple		
J	-210 °C	+1200 °C
K	-210 °C	+1372 °C
R	-50 °C	+1767 °C
S	-50 °C	+1767 °C
B	+400 °C	+1825 °C
E	-210 °C	+1000 °C
T	-210 °C	+400 °C
N	-210 °C	+1300 °C

INPUT

Input Accuracy (1)	The greater than ±0.05 % f.s. e ±5uV
Linearity (1)	
mV	± 0.1 % f.s.
Tc	± 0.2 % f.s.
Cold junction compensation error (CJC)	± 1 °C
Input impedance	
mV, Tc	≥ 1 M Ω
Lead wire resistance influence (1)	
mV, Tc	< 0.8 uV/Ohm
Thermal drift (1)	
Full Scale	± 0.005 %/°C
Thermal drift CJC	
Full Scale	± 0.02 %/°C
Sampling time (4 channels)	150 ms
Warm-up time	3 min

(1) Referred to input Span (difference between max. and min. values)

DAT 8017-I



GENERAL DESCRIPTION

The DAT8017-I module is a Modbus TCP server unit that can convert up to 8 analog signals applied to the input in engineering units in digital format. The inputs can be connected with active current output sensors. The input channels are electrically isolated in pairs. The device guarantees high accuracy and a stable measure versus time and temperature. In order to ensure the safety plant, the device is provided with a Watch-Dog Timer system. The Ethernet interface allows reading and writing in real time the values of the internal registers of the device. The LEDs of signalling of Ethernet activity and power supply allow a direct monitoring of the system functionality. The built-in Web Server of DAT8017-I allows the remote visualization, acquisition of the analog inputs and the access to the main Ethernet programming parameters. The device is also configurable by the software Dev9K, a free IDE developed by DATEXEL. The connection is made by removable screw-terminals (inputs and power supply) and RJ45 plug (Ethernet). The device DAT8017-I realizes a full electrical isolation between the lines, introducing a valid protection against the effects of all ground loops eventually existing in industrial applications. The device is housed in a rough self-extinguishing plastic enclosure which, thanks to its thin profile of 22.5 mm only, allows a high density mounting on EN-50022 standard DIN rail.

FEATURES

- Interface Ethernet 10/100 Base-T, Modbus TCP Server
- 8 isolated input channels in pairs
- Passive input up to ± 20 mA
- Integrated web server for acquiring the status of the analog inputs via browser
- Remotely programmable
- Connection by removable screw-terminals
- LED signalling for Link/Act Ethernet, power supply
- Galvanic isolation on all the ways
- EMC compliant – CE mark
- In compliance with Ethernet IEEE 802.3
- In compliance to EN-50022 DIN rail mounting



Employments sectors



POWER SUPPLY

Power supply voltage	14 .. 30 Vdc
Reverse polarity protection	60 Vdc max
Consumption (standby)	60 mA tip@ 24 Vdc
Consumption (operative)	75 mA max@ 24 Vdc 115 mA max@ 14 Vdc

ISOLATION

Power Supply / Ethernet	1500 Vac, 50 Hz, 1 min
Inputs / Power supply	1500 Vac, 50 Hz, 1 min
Inputs / Ethernet	1500 Vac, 50 Hz, 1 min
Input / Input	1500 Vac, 50 Hz, 1 min

CONNECTIONS

Ethernet	RJ-45 (on terminals side)
Inputs	Removable screw-terminals
Power Supply	Removable screw-terminals

EMC (for industrial environments)

Immunity	EN 61000-6-2
Emission	EN 61000-6-4

ENVIRONMENTAL CONDITIONS

Operative Temperature	-10°C .. +60°C
Storage Temperature	-40°C .. +85°C
Humidity (not condensed)	0 .. 90 %
Maximum Altitude	2000 m
Installation	Indoor
Category of installation	II
Pollution Degre	2

MECHANICAL SPECIFICATIONS

Material	Self-extinguish plastic
IP Code	IP20
Wirings	wires with diameter 0.8÷2.1 mm ² AWG 14-18
Tightening Torque	0.5 N m
Mounting	in compliance to DIN rail standard EN-50022
Weight	about 160 gr.

INPUT

Input Type	Min	Max
Current		
mA	-20 mA	+20 mA

INPUT

Input Accuracy (1)	
mA	± 0.05 % f.s.
Linearity (1)	
mA	± 0.1 % f.s.
Input impedance	
	$\sim 22 \Omega$
Thermal drift (1)	
Full Scale	± 0.01 %/°C
Sampling time (8 channels)	
	150 ms

(1) Referred to input Span (difference between max. and min. values)

MODBUS TCP/IP SERVER 8 ISOLATED INPUT CHANNELS IN PAIRS FOR VOLT

DAT 8017-V



GENERAL DESCRIPTION

The DAT8017-V module is a Modbus TCP server unit that can convert up to 8 analog signals applied to the input in engineering units in digital format. The inputs can be connected with voltage output sensors. The input channels are electrically isolated in pairs. The device guarantees high accuracy and a stable measure versus time and temperature. In order to ensure the safety plant, the device is provided with a Watch-Dog Timer system. The Ethernet interface allows reading and writing in real time the values of the internal registers of the device. The LEDs of signalling of Ethernet activity and power supply allow a direct monitoring of the system functionality. The built-in Web Server of DAT8017-V allows the remote visualization, acquisition of the analog inputs and the access to the main Ethernet programming parameters. The device is also configurable by the software Dev9K, a free IDE developed by DATEXEL. The connection is made by removable screw-terminals (inputs and power supply) and RJ45 plug (Ethernet). The device DAT8017-V realizes a full electrical isolation between the lines, introducing a valid protection against the effects of all ground loops eventually existing in industrial applications. The device is housed in a rough self-extinguishing plastic enclosure which, thanks to its thin profile of 22.5 mm only, allows a high density mounting on EN-50022 standard DIN rail.

FEATURES

- Interface Ethernet 10/100 Base-T, Modbus TCP Server
- 8 isolated input channels in pairs
- Input for voltage signals up to ± 10 V
- Integrated web server for acquiring the status of the analog inputs via browser
- Remotely programmable
- Connection by removable screw-terminals
- LED signalling for Link/Act Ethernet, power supply
- Galvanic isolation on all the ways
- EMC compliant – CE mark
- In compliance with Ethernet IEEE 802.3
- In compliance to EN-50022 DIN rail mounting



Employments sectors



POWER SUPPLY

Power supply voltage	14 .. 30 Vdc
Reverse polarity protection	60 Vdc max
Consumption (standby)	60 mA tip@ 24 Vdc
Consumption (operative)	75 mA max@ 24 Vdc 115 mA max@ 14 Vdc

MECHANICAL SPECIFICATIONS

Material	Self-extinguish plastic
IP Code	IP20
Wirings	wires with diameter 0.8±2.1 mm ² AWG 14-18
Tightening Torque	0.6 N m
Mounting	in compliance to DIN rail standard EN-50022
Weight	about 160 gr.

ISOLATION

Power Supply / Ethernet	1500 Vac, 50 Hz, 1 min
Inputs / Power supply	1500 Vac, 50 Hz, 1 min
Inputs / Ethernet	1500 Vac, 50 Hz, 1 min
Input / Input	1500 Vac, 50 Hz, 1 min

INPUT

Input Type	Min	Max
Voltage		
Volt	-10 V	+10 V

CONNECTIONS

Ethernet	RJ-45 (on terminals side)
Inputs	Removable screw-terminals
Power Supply	Removable screw-terminals

EMC (for industrial environments)

Immunity	EN 61000-6-2
Emission	EN 61000-6-4

ENVIRONMENTAL CONDITIONS

Operative Temperature	-10°C .. +60°C
Storage Temperature	-40°C.. +85°C
Humidity (not condensed)	0 .. 90 %
Maximum Altitude	2000 m slm
Installation	Indoor
Category of installation	II
Pollution Degree	2

INPUT

Input Accuracy (1)	
Volt	± 0.05 % f.s.
Linearity (1)	
Volt	± 0.1 % f.s.
Input impedance	
	≥ 1 M Ω
Thermal drift (1)	
Full Scale	± 0.01 %/°C
Sampling time (8 channels)	
	150 ms

(1) Referred to input Span (difference between max. and min. values)

DAT 8018



GENERAL DESCRIPTION

The DAT8018 module is a Modbus TCP server unit that can convert up to 8 analog signals applied to the input in engineering units in digital format. The inputs can be connected to sensors with mV output or thermocouple. The input channels are electrically isolated in pairs. The device guarantees high accuracy and a stable measure versus time and temperature. In order to ensure the safety plant, the device is provided with a Watch-Dog Timer system. The Ethernet interface allows reading and writing in real time the values of the internal registers of the device. The LEDs of signalling of Ethernet activity and power supply allow a direct monitoring of the system functionality. The built-in Web Server of DAT8018 allows the remote visualization, acquisition of the analog inputs and the access to the main Ethernet programming parameters. The device is also configurable by the software Dev9K, a free IDE developed by DATEXEL. The connection is made by removable screw-terminals (inputs and power supply) and RJ45 plug (Ethernet). The device DAT8018 realizes a full electrical isolation between the lines, introducing a valid protection against the effects of all ground loops eventually existing in industrial applications. The device is housed in a rough self-extinguishing plastic enclosure which, thanks to its thin profile of 22.5 mm only, allows a high density mounting on EN-50022 standard DIN rail.

FEATURES

- Interface Ethernet 10/100 Base-T, Modbus TCP Server
- 8 isolated input channels in pairs
- Input configurable for mV and Tc
- Integrated web server for acquiring the status of the analog inputs via browser
- Remotely programmable
- Connection by removable screw-terminals
- LED signalling for Link/Act Ethernet, power supply
- Galvanic isolation on all the ways
- EMC compliant – CE mark
- In compliance with Ethernet IEEE 802.3
- In compliance to EN-50022 DIN rail mounting



Employments sectors



POWER SUPPLY

Power supply voltage	14 .. 30 Vdc
Reverse polarity protection	60 Vdc max
Consumption (standby)	60 mA tip@ 24 Vdc
Consumption (operative)	75 mA max@ 24 Vdc 115 mA max@ 14 Vdc

ISOLATION

Power Supply / Ethernet	1500 Vac, 50 Hz, 1 min
Inputs / Power supply	1500 Vac, 50 Hz, 1 min
Inputs / Ethernet	1500 Vac, 50 Hz, 1 min
Input / Input	1500 Vac, 50 Hz, 1 min

CONNECTIONS

Ethernet	RJ-45 (on terminals side)
Inputs	Removable screw-terminals
Power Supply	Removable screw-terminals

EMC (for industrial environments)

Immunity	EN 61000-6-2
Emission	EN 61000-6-4

ENVIRONMENTAL CONDITIONS

Operative Temperature	-10°C .. +60°C
Storage Temperature	-40°C.. +85°C
Humidity (not condensed)	0 .. 90 %
Maximum Altitude	2000 m slm
Installation	Indoor
Category of installation	II
Pollution Degree	2

MECHANICAL SPECIFICATIONS

Material	Self-extinguish plastic
IP Code	IP20
Wiring	wires with diameter 0.8+2.1 mm² AWG 14-18
Tightening Torque	0.5 N m
Mounting	in compliance to DIN rail standard EN-50022
Weight	about 160g.

INPUT

Input Type	Min	Max
Voltage		
mV	-250 mV	+250 mV
Thermocouple		
J	-210 °C	+1200 °C
K	-210 °C	+1372 °C
R	-50 °C	+1767 °C
S	-50 °C	+1767 °C
B	+400 °C	+1825 °C
E	-210 °C	+1000 °C
T	-210 °C	+400 °C
N	-210 °C	+1300 °C

INPUT

Input Accuracy (1)	The greater than ±0,05 % f.s. and ±5uV
Linearity (1)	
mV	± 0.1 % f.s.
Tc	± 0.2 % f.s.
Cold junction compensation error (CJC)	± 1 °C
Input impedance	
mV, Tc	≥ 1 M Ω
Lead wire resistance influence (1)	
mV, Tc	< 0,8 uV/Ohm
Thermal drift (1)	
Full Scale	± 0.005 %/°C
Thermal drift CJC	
Full Scale	± 0.02 %/°C
Sampling time (8 channels)	150 ms
Warm-up time	3 min

(1) Referred to input Span (difference between max. and min. values)

DAT 8019

GENERAL DESCRIPTION

The DAT8019 module is a Modbus TCP server unit that can convert up to 8 analog signals applied to the input in engineering units in digital format. The inputs can be connected to sensors RTD or resistance to 2 wires. The input channels are electrically isolated in pairs. The device guarantees high accuracy and a stable measure versus time and temperature. In order to ensure the safety plant, the device is provided with a Watch-Dog Timer system. The Ethernet interface allows reading and writing in real time the values of the internal registers of the device. The LEDs of signalling of Ethernet activity and power supply allow a direct monitoring of the system functionality. The built-in Web Server of DAT8019 allows the remote visualization, acquisition of the analog inputs and the access to the main Ethernet programming parameters. The device is also configurable by the software Dev9K, a free IDE developed by DATEXEL. The connection is made by removable screw-terminals (inputs and power supply) and RJ-45 plug (Ethernet). The device DAT8019 realizes a full electrical isolation between the lines, introducing a valid protection against the effects of all ground loops eventually existing in industrial applications. The device is housed in a rough self-extinguishing plastic enclosure which, thanks to its thin profile of 22.5 mm only, allows a high density mounting on EN-50022 standard DIN rail.

FEATURES

- Interface Ethernet 10/100 Base-T, Modbus TCP Server
- 8 isolated input channels in pairs
- Input configurable for RTD, Resistance 2 wire
- Integrated web server for acquiring the status of the analog inputs via browser
- Remotely programmable
- Remotely programmable
- Connection by removable screw-terminals
- LED signalling for Link/Act Ethernet, power supply
- Galvanic isolation on all the ways
- EMC compliant – CE mark
- In compliance with Ethernet IEEE 802.3
- In compliance to EN-50022 DIN rail mounting



Employments sectors


POWER SUPPLY

Power supply voltage	14 .. 30 Vdc
Reverse polarity protection	60 Vdc max
Consumption (standby)	60 mA tip@ 24 Vdc
Consumption (operative)	75 mA max@ 24 Vdc 115 mA max@ 14 Vdc

ISOLATION

Power Supply / Ethernet	1500 Vac, 50 Hz, 1 min
Inputs / Power supply	1500 Vac, 50 Hz, 1 min
Inputs / Ethernet	1500 Vac, 50 Hz, 1 min
Input / Input	1500 Vac, 50 Hz, 1 min

CONNECTIONS

Ethernet	RJ-45 (on terminal side)
Inputs	removable screw terminal
Power Supply	removable screw terminal

EMC (for industrial environments)

Immunity	EN 61000-6-2
Emission	EN 61000-6-4

ENVIRONMENTAL CONDITIONS

Operative Temperature	-10°C .. +60°C
Storage Temperature	-40°C.. +85°C
Humidity (not condensed)	0 .. 90 %
Maximum Altitude	2000 m
Installation	Indoor
Category of installation	II
Pollution Degree	2

MECHANICAL SPECIFICATIONS

Material	Self-extinguish plastic
IP Code	IP20
Wirings	wires with diameter 0.8±2.1 mm ² AWG 14-18
Tightening Torque	0.5 N m
Mounting	in compliance to DIN rail standard EN-50022
Weight	about 160 gr.

INPUT

Input Type	Min	Max
RTD 2 Wires		
Pt100	-200 °C	850 °C
Pt1000	-200 °C	200 °C
Ni100	-60 °C	180 °C
Ni1000	-60 °C	150 °C
RES. 2 Wires		
Low	0 Ω	500 Ω
High	0 Ω	2000 Ω

INPUT

Input Accuracy (1)	
RTD	±0.2 % f.s.
Resistance	±0.2 % f.s.
Linearity (1)	
RTD	±0.1 % f.s.
RTD excitation current	
Typical	0.370 mA
Thermal drift (1)	
Full Scale	±0.01 %/°C
Sampling time (8 channels)	
	150 ms
Warm-up time	
	3 min

(1) Referred to input Span (difference between max. and min. values)

DAT 8024



GENERAL DESCRIPTION

The DAT8024 module is a Modbus TCP server unit that can generate up to 4 analog output signals via digital commands. To the outputs it is possible to connect active or passive loop current up to 20 mA or voltage signals up to 10 V. The output channels are electrically isolated from each other. For each channel is provided an isolated power source for powering passive loop current. The device guarantees high accuracy and a stable measure versus time and temperature. In order to ensure the safety plant, the device is provided with a Watch-Dog Timer system. The Ethernet interface allows reading and writing in real time the values of the internal registers of the device. The LEDs of signalling of Ethernet activity and power supply allow a direct monitoring of the system functionality. The built-in Web Server of DAT8024 allows the remote visualization, setting of the analog outputs and the access to the main Ethernet programming parameters. The device is also configurable by the software Dev9K, a free IDE developed by DATEXEL. The connection is made by removable screw-terminals (inputs and power supply) and RJ45 plug (Ethernet). The device DAT8024 realizes a full electrical isolation between the lines, introducing a valid protection against the effects of all ground loops eventually existing in industrial applications. The device is housed in a rough self-extinguishing plastic enclosure which, thanks to its thin profile of 22.5 mm only, allows a high density mounting on EN-50022 standard DIN rail.

FEATURES

- Interface Ethernet 10/100 Base-T, Modbus TCP Server
- 4 isolated output channels
- Configurable Analog Outputs for mA and Volt
- Isolated power source for each channel to power passive loads
- Integrated web server to set the analog outputs via browser
- Remotely programmable
- Connection by removable screw-terminals
- LED signalling for Link/Act Ethernet, power supply
- Galvanic isolation on all the ways
- EMC compliant – CE mark
- In compliance with Ethernet IEEE 802.3
- In compliance to EN-50022 DIN rail mounting



Employments sectors



POWER SUPPLY

Power supply voltage	18 .. 30 Vdc
Reverse polarity protection	60 Vdc max
Consumption (Not Operative Aux)	90 mA max@ 24 Vdc 110 mA max@ 18 Vdc
Consumption (**)	150 mA max@ 24 Vdc 180 mA max@ 18 Vdc

ISOLATION

Power Supply / Ethernet	1500 Vac, 50 Hz, 1 min
Inputs / Power supply	1500 Vac, 50 Hz, 1 min
Inputs / Ethernet	1500 Vac, 50 Hz, 1 min
Input / Input	1500 Vac, 50 Hz, 1 min

CONNECTIONS

Ethernet	RJ-45 (on terminals side)
Inputs	Removable screw-terminals
Power Supply	Removable screw-terminals

EMC (for industrial environments)

Immunity	EN 61000-6-2
Emission	EN 61000-6-4

ENVIRONMENTAL CONDITIONS

Operative Temperature	-10°C .. +60°C
Storage Temperature	-40°C.. +85°C
Humidity (not condensed)	0 .. 90 %
Maximum Altitude	2000 m slm
Installation	Indoor
Category of installation	II
Pollution Degree	2

MECHANICAL SPECIFICATIONS

Material	Self-extinguish plastic
IP Code	IP20
Wirings	wires with diameter 0.8+2.1 mm ² AWG 14-18
Tightening Torque	0.5 N m
Mounting	in compliance to DIN rail standard EN-50022
Weight	about 160 gr.

OUTPUT

Output Type	Min	Max
Current		
mA	0 mA	+20 mA
Voltage		
Volt	0 V	+10 V

OUTPUT

Output Accuracy (1)	
mA	± 10 uA
Volt	± 5 uV
Linearity (1)	
mA	± 0.1 % f.s.
Volt	± 0.1 % f.s.
Load Resistance	
mA	≤ 500 Ω
Volt	≥ 5 K Ω
Thermal drift (1)	
Full Scale	± 0.01 %/°C
Auxiliary Supply (for each channel)	12 Vdc min @ 20 mA
Response Time (from 10% to 90% f.s.)	15 ms

(1) Referred to input Span (difference between max. and min.values)
(**) 4 Operative Auxiliary Supply @20mA

MODBUS TCP/IP SERVER 8 DIGITAL INPUTS 4 RELAY OUTPUTS

DAT 8130



GENERAL DESCRIPTION

The device DAT8130 is a Modbus TCP server unit with 8 digital input channels and 4 relay outputs type SPDT. For the digital inputs are available up to four 32 bit counters with measure of frequency up to 300 Hz. The Ethernet interface allows to read and write in real time the value of device's internal registers. The built-in Web Server of DAT8130 allows the remote visualization and acquisition of the digital inputs state, to drive the relay outputs and access to and configure the main Ethernet parameters via web browser. The device is also configurable by the software Dev9K, a free IDE developed by DATEXEL. The device DAT8130 realizes a full electrical isolation between the lines, introducing a valid protection against the effects of all ground loops eventually existing in industrial applications. The LEDs of signalling of Ethernet activity, input, output state and power supply allow a direct monitoring of the system functionality. The connection is made by removable screw-terminals (inputs, outputs and power supply) and RJ45 plug (Ethernet). The device is housed in a rough self-extinguishing plastic enclosure which, thanks to its thin profile of 22.5 mm only, allows a high density mounting on EN-50022 standard DIN rail.

FEATURES

- Interface Ethernet 10/100 Base-T, Modbus TCP Server
- N.8 Digital inputs
- N.4 Relay outputs (SPDT)
- Built-in Web server to acquire the digital inputs state and drive the digital outputs via web browser
- Remotely programmable
- Connection by removable screw-terminals
- LED signalling for Link/ Act Ethernet, power supply
- LED signalling for digital inputs and outputs state
- Galvanic isolation on all the ways
- EMC compliant – CE mark
- In compliance with Ethernet IEEE 802.3
- In compliance to EN-50022 DIN rail mounting



Employments sectors



POWER SUPPLY

Power supply voltage	10 .. 30 Vdc
Reverse polarity protection	60 Vdc max
Consumption (standby)	60 mA tip@ 24 Vdc
Consumption (operative)	100 mA max@ 24 Vdc 290 mA max@ 10 Vdc

ISOLATION

Power Supply / Ethernet	1500 Vac, 50 Hz, 1 min
Inputs / Power supply	1500 Vac, 50 Hz, 1 min
Inputs / Ethernet	1500 Vac, 50 Hz, 1 min
Inputs / Outputs	1500 Vac, 50 Hz, 1 min

CONNECTIONS

Ethernet	RJ-45 (on terminals side)
Inputs/Outputs	Removable screw-terminals
Power Supply	Removable screw-terminals

EMC (for industrial environments)

Immunity	EN 61000-6-2
Emission	EN 61000-6-4

ENVIRONMENTAL CONDITIONS

Operative Temperature	-10°C .. +60°C
Storage Temperature	-40°C.. +85°C
Humidity (not condensed)	0 .. 90 %
Maximum Altitude	2000 m slm
Installation	Indoor
Category of installation	II
Pollution Degree	2

MECHANICAL SPECIFICATIONS

Material	Self-extinguish plastic
IP Code	IP20
Wirings	wires with diameter 0.8÷2.1 mm ² AWG 14-18
Tightening Torque	0.5 N m
Mounting	in compliance to DIN rail standard EN-50022
Weight	about 190 gr.

DIGITAL INPUTS

Channels	8
Input voltage (bipolar)	
OFF state	0 ÷ 3 V
ON state	10 ÷ 30 V
Impedance	4.7 K Ω
Sample time	5 ms
Number of counters	4
Counters register bit-length	32 bit
Counters frequency	up to 300 Hz
Minimum pulse width	1 ms

DIGITAL OUTPUTS

Channels	4
Type	SPDT relay
Switching power (max.)	
2 A @ 250 Vac (resistive load) per contact	
2 A @ 30 Vdc (resistive load) per contact	
Minimum load	5Vdc , 10mA
Max. voltage	
250Vca (50 / 60 Hz) , 30Vdc	
Dielectric strength between contacts	
1000 Vac, 50 Hz, 1 min.	
Dielectric strength between coil and contacts	
4000 Vac, 50 Hz, 1 min.	

DAT 8148



GENERAL DESCRIPTION

The device DAT8148 is a Modbus TCP server unit with 16 digital input channels. For the digital inputs are available up to 4 counters at 32 bit with measure of frequency up to 300 Hz. The Ethernet interface allows to read and write in real time the value of device's internal registers. The built-in Web Server of DAT8148 allows the remote visualization and acquisition of the digital inputs state and access to and configure the main Ethernet parameters via web browser. The device is also configurable by the software Dev9K, a free IDE developed by DATEXEL. The device DAT8148 realizes a full electrical isolation between the lines, introducing a valid protection against the effects of all ground loops eventually existing in industrial applications. The LEDs of signalling of Ethernet activity, input and power supply allow a direct monitoring of the system functionality. The connection is made by removable screw-terminals (inputs and power supply) and RJ45 plug (Ethernet). The device is housed in a rough self-extinguishing plastic enclosure which, thanks to its thin profile of 22.5 mm only, allows a high density mounting on EN-50022 standard DIN rail.

FEATURES

- Interface Ethernet 10/100 Base-T, Modbus TCP Server
- N.16 Digital inputs
- Built-in Web server to acquire the digital inputs state via web browser
- Remotely programmable
- Connection by removable screw-terminals
- LED signalling for Link/Act Ethernet, power supply
- LED signalling for digital inputs state
- Galvanic isolation on all the ways
- EMC compliant – CE mark
- In compliance with Ethernet IEEE 802.3
- In compliance to EN-50022 DIN rail mounting



Employments sectors



POWER SUPPLY

Power supply voltage	10 .. 30 Vdc
Reverse polarity protection	60 Vdc max
Consumption (standby)	60 mA tip@ 24 Vdc
Consumption (operative)	80 mA max@ 24 Vdc 220 mA max@ 10 Vdc

ISOLATION

Power Supply / Ethernet	1500 Vac, 50 Hz, 1 min
Inputs / Power supply	1500 Vac, 50 Hz, 1 min
Inputs / Ethernet	1500 Vac, 50 Hz, 1 min
Inputs / Inputs	1500 Vac, 50 Hz, 1 min

CONNECTIONS

Ethernet	RJ-45 (on terminals side)
Inputs/Outputs	Removable screw-terminals
Power Supply	Removable screw-terminals

EMC (for industrial environments)

Immunity	EN 61000-6-2
Emission	EN 61000-6-4

ENVIRONMENTAL CONDITIONS

Operative Temperature	-10°C .. +60°C
Storage Temperature	-40°C.. +85°C
Humidity (not condensed)	0 .. 90 %
Maximum Altitude	2000 m slm
Installation	Indoor
Category of installation	II
Pollution Degree	2

MECHANICAL SPECIFICATIONS

Material	Self-extinguish plastic
IP Code	IP20
Wirings	wires with diameter 0.8+2.1 mm ² AWG 14-18
Tightening Torque	0.5 N m
Mounting	in compliance to DIN rail standard EN-50022
Weight	about 160 gr.

DIGITAL INPUTS

Channels	16
Input voltage (bipolar)	
OFF state	0 + 3 V
ON state	10 + 30 V
Impedance	4,7 K Ω
Sample time	5 ms
Number of counters	4
Counters register bit-length	32 bit
Counters frequency	up to 300 Hz
Minimum pulse width	1 ms

MODBUS TCP/IP SERVER 8 DIGITAL INPUTS 8 PNP OUTPUTS

DAT 8188



GENERAL DESCRIPTION

The device DAT8188 is a Modbus TCP server unit with 8 digital input channels and 8 PNP outputs. For the digital inputs are available up to 4 counters at 32 bit with measure of frequency up to 300 Hz. The Ethernet interface allows to read and write in real time the value of device's internal registers. The built-in Web Server of DAT8188 allows the remote visualization and acquisition of the digital inputs state, to drive the digital outputs and access to and configure the main Ethernet parameters via web browser. The device is also configurable by the software Dev9K, a free IDE developed by DATEXEL. The device DAT8188 realizes a full electrical isolation between the lines, introducing a valid protection against the effects of all ground loops eventually existing in industrial applications. The LEDs of signalling of Ethernet activity, input and output state and power supply allow a direct monitoring of the system functionality. The connection is made by removable screw-terminals (inputs, outputs and power supply) and RJ45 plug (Ethernet). The device is housed in a rough self-extinguishing plastic enclosure which, thanks to its thin profile of 22.5 mm only, allows a high density mounting on EN-50022 standard DIN rail.

FEATURES

- Interface Ethernet 10/100 Base-T, Modbus TCP Server
- N.8 Digital inputs
- N.8 PNP outputs
- Built-in Web server to acquire the digital inputs state and drive the digital outputs via web browser
- Remotely programmable
- Connection by removable screw-terminals
- LED signalling for Link/ Act Ethernet, power supply
- LED signalling for digital inputs and outputs state
- Galvanic isolation on all the ways
- EMC compliant – CE mark
- In compliance with Ethernet IEEE 802.3
- In compliance to EN-50022 DIN rail mounting



Employments sectors



POWER SUPPLY

Power supply voltage	10 .. 30 Vdc
Reverse polarity protection	60 Vdc max
Consumption (standby)	60 mA tip@ 24 Vdc
Consumption (operative)	90 mA max@ 24 Vdc 220 mA max@ 10 Vdc

ISOLATION

Power Supply / Ethernet	1500 Vac, 50 Hz, 1 min
Inputs / Power supply	1500 Vac, 50 Hz, 1 min
Inputs / Ethernet	1500 Vac, 50 Hz, 1 min
Input / Output	1500 Vac, 50 Hz, 1 min

CONNECTIONS

Ethernet	RJ-45 (on terminals side)
Inputs/Outputs	Removable screw-terminals
Power Supply	Removable screw-terminals

EMC (for industrial environments)

Immunity	EN 61000-6-2
Emission	EN 61000-6-4

ENVIRONMENTAL CONDITIONS

Operative Temperature	-10°C .. +60°C
Storage Temperature	-40°C.. +85°C
Humidity (not condensed)	0 .. 90 %
Maximum Altitude	2000 m
Installation	Indoor
Category of installation	II
Pollution Degree	2

MECHANICAL SPECIFICATIONS

Material	Self-extinguish plastic
IP Code	IP20
Wirings	wires with diameter 0.8+2.1 mm ² AWG 14-18
Tightening Torque	0.5 N m
Mounting	in compliance to DIN rail standard EN-50022
Weight	about 160 gr.

DIGITAL INPUTS

Channels	8
Input voltage (bipolar)	
OFF state	0 + 3 V
ON state	10 + 30 V
Impedance	4.7 K Ω
Sample time	5 ms
Number of counters	4
Counters register bit-length	32 bit
Counters frequency	up to 300 Hz
Minimum pulse width	1 ms

DIGITAL OUTPUTS

Channels	8
Type	PNP
Voltage	10.5+30 Vdc
Max Load(*)	500 mA per channel 1 A per module
Inductive load	48 Ω – 2H max

(*) Protection against overcurrent and temperature
Short-circuit current 1.7 A