KIO extension modules (Ethernet) – MANUAL

ORDER-CODES:
KIO7053, KIO7052, KIO7060, KIO7017

Datasheet-KIO2217,
Datasheet-KIO2251,

Datasheet-KIO2260,
Quick guide

Overview

The expansion modules (Ethernet) integrate numerous inputs and outputs in a compact device. They enable the integration of external alarm messages and measured values in KentixONE. The network-compatible modules are supplied with power either via Power over Ethernet (PoE) or an external power supply unit (10-48 VDC, 4.4 W).

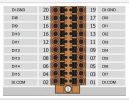
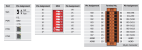
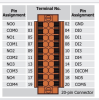
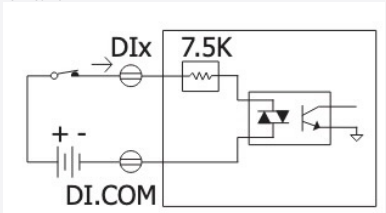
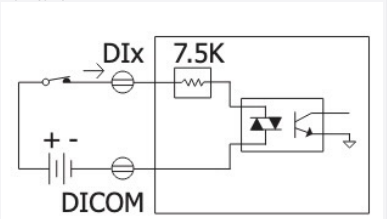
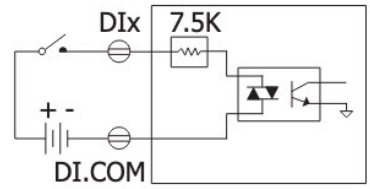
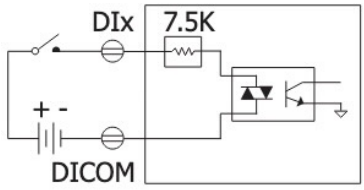
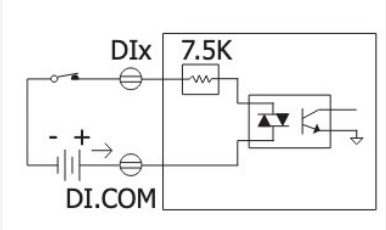
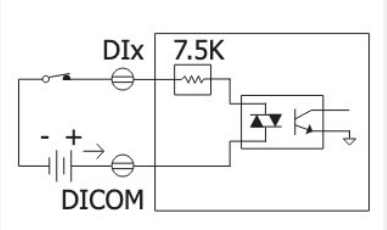
The network settings are configured on the device itself using a web browser. The alarm and display logic is then configured in KentixONE.

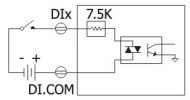
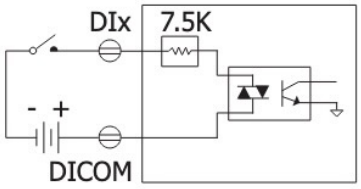
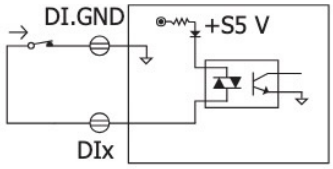
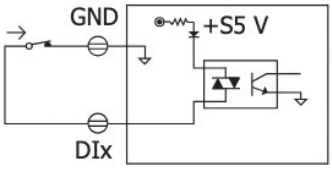
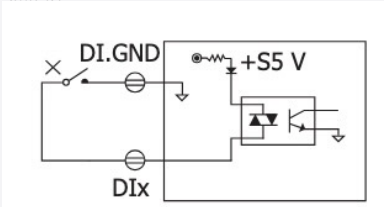
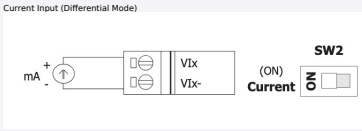
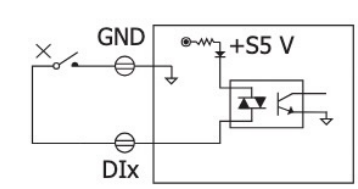
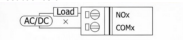
Safety instructions

Installation
Installation and commissioning may only be carried out by trained specialist personnel in accordance with the instructions.
No modifications of any kind, other than those described in an appropriate manual, are permitted to Kentix GmbH products.
Certain levels of protection must be provided when installing Kentix equipment.
Observe the relevant regulations for installations in the respective environment.
Only operate the products within the defined temperature range.
The instructions should be passed on to the user by the person carrying out the installation.
Kentix accepts no liability for damage to the equipment or components resulting from incorrect installation. No liability is accepted for incorrectly programmed units.
Kentix shall not be liable in the event of malfunctions, damage to property or other damage.
Use of the products, transport and storage
Protect the device during transport, storage and operation from
Protect moisture, dirt and damage.
Battery powered products
Do not use products in potentially explosive atmospheres.
Only operate the products within the defined temperature range.
Installation and battery replacement may only be carried out by trained personnel in accordance with the instructions.
Do not charge, short circuit, open or heat batteries.
When inserting the batteries, pay attention to the correct polarity.
The devices must always be operated with the batteries intended for the product.
When changing batteries, always replace all batteries.
Dispose of old or used batteries properly.
Keep batteries out of the reach of children.
Maintenance
Kentix devices must be checked for functionality as part of annual maintenance.
Disposal
Electrical appliances and batteries must be disposed of separately from household waste.

Variants

There are 3 expansion modules (Ethernet) available, which differ in the number of inputs and outputs. The differences are shown in the following table:

Model	KIO2251	KIO2217	KIO2260
			
Digital inputs	16	-	6
Analog inputs	-	8 differential or 16 single-ended	-
Relay outputs	-	-	6
Protocol	Modbus TCP		
IP Port	502 TCP		
Configuration network	Web Server HTTP, Port 80, Default IP: 192.168.255.1		
Configuration via KentixONE	Configuration is carried out completely via KentixONE. Only IP settings on IO module necessary. Alarm and display logic is freely adjustable in KentixONE.		
Power supply	PoE (Class 1) or external 10-48VDC	PoE (Class 1) or external 10-48VDC	PoE (Class 2) or external 10-48VDC
Mounting	DIN rail		
Full of potential			
Connection variant 1	Floating SINK Readback as 1 +5 – +50VDC 	Full-day input (single-ended mode) 	Floating SINK Readback as 1 +10 – +50VDC 
Connection variant 2	Floating SINK Readback as 0 OPEN or <1 VDC 	-	Floating SINK Readback as 0 OPEN or <4 VDC 
Connection variant 3	Floating SOURCE Readback as 1 +5 – +50 VDC 	-	Floating SOURCE Readback as 1 +10 – +50 VDC 

Model	KIO2251	KIO2217	KIO2260
Connection variant 4	potential SOURCE Readback as 0 OPEN or <1 VDC 	-	potential SOURCE Readback as 0 OPEN or <4 VDC 
Potential-free			
Connection variant 5	floating Close to GND Readback as 1 	Voltage Input (Differntial Mode) 	floating Close to GND Readback as 1 
Connection variant 6	potential-free Open Readback as 0 	Current Input (Differential Mode) 	potential-free Open Readback as 0 
Relay Output			
Connection variant 7	-	-	Relay output ON State Reedback as 1 
Connection variant 8	-	-	Relay output OFF State Reedback as 0 

Determination of the measuring range for KIO2217

To switch from voltage measurement ±10V (default) to current measurement ±20mA, the jumper inside the housing must be moved.

Factory settings

Default IP address	192.168.255.1
Subnet mask	255.255.255.0

Commissioning

The modules can be supplied with power either via Power over Ethernet (PoE,

recommended) or via an external power supply unit. When using a power supply unit, please observe the power supply specifications in the Datasheet.

Configuration with KentixONE

The device is configured via the web browser in KentixONE. The device must be accessible to the central KentixONE instance on the network side. Depending on the device type, a communication key and the IP address or DHCP name of the central KentixONE instance must also be set on the device (MultiSensors, AccessManager, SmartPDU). IP cameras or IO modules, on the other hand, can be integrated directly into KentixONE.

All information about the software can be found in the KentixONE section and the associated documentation.

Before starting the configuration, make sure that the software on all network-compatible Kentix devices is up-to-date. The version status must match on all devices.
You can perform a software update for your KentixONE main instance and all connected satellites at any time via “System – Update”.