

The Ethernet hub module HUB204 is used to connect several machines via Ethernet. It contains 4 10BaseT transceiver interfaces, of which one is designed as UP-link. All 10BaseT transceivers are equipped with filters and isolated against each other. The HUB204 module can be mounted onto a free module slot of a backplane. It does not have any connection to the M1 data bus.



Features

- four 10BaseT Transceivers
- status display via LEDs
- usable 0 ... 60 °C ambient temperature without extra cooling
- cascadeable up to 4 modules
- RJ45 connectors
- 3-pole connector for essential external power supply

Ethernet Hub	HUB204
state indicating LEDs	RUN green, COLLision yellow, LEDTP 1 .. 4 green
integrated backplane	no
maximum cable length	100 m
maximum baudrate	10 MBits / s
cable impedance	100 Ω
termination	100 Ω
power supply	external, 24 V DC

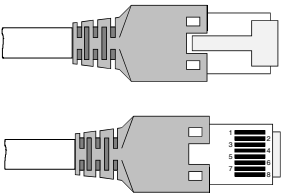
State Indicating LEDs

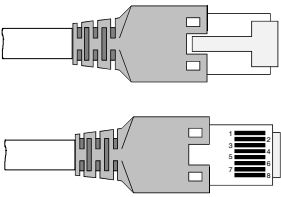
LED	Description
RUN (green)	LED is lit, when data are transmitted
COLLISION (yellow)	LED is lit, when a collision occurs
LEDTP 1 .. 4 (green)	LEDs of the 4 ports can indicate 3 states: LED is lit if Link Pulse is On LED blinks when RX-packet is received LED is dim if Link Pulse is Off

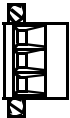

External Power Supply

External Power Supply	Description
input voltage, nominal	24 V DC
input voltage, range	18 .. 34 V DC
input voltage, peak value, if $t \leq 1$ s / min	40 V DC
current consumption	typ. 100 mA @ 24 V
polarity reversal protection	yes

Pin Assignments

Connector	Pin	Signal	Description
1x / 2x / 3x / 4x 	1	RXD+	Receive Data+
	2	RXD-	Receive Data-
	3	TXD+	Transmit Data+
	4	n.c.	not connected
	5	n.c.	not connected
	6	TXD-	Transmit Data-
	7	n.c.	not connected
	8	n.c.	not connected

Connector	Pin	Signal	Description
4= 	1	TXD+	Transmit Data+
	2	TXD-	Transmit Data-
	3	RXD+	Receive Data+
	4	n.c.	not connected
	5	n.c.	not connected
	6	RXD-	Receive Data-
	7	n.c.	not connected
	8	n.c.	not connected

Connector	Pin	Signal	Description
	1	+	external power + 24 V DC
	2	-	external power supply ground
	3		functional earthing

Order Code for Modules and Accessories

Order Code	Order #	Description
RMHUB.204	0067524.001	Ethernet Hub RJ45; four Ports; for mounting onto backplane
RMKZ51.03	0067503.001	Terminal set with label strips
???	???	Ethernet cable with RJ 45 connector x meters, straight: M1-HUB, PC-HUB
???	???	Ethernet cable with RJ 45 connector x meters, crossed: M1-PC

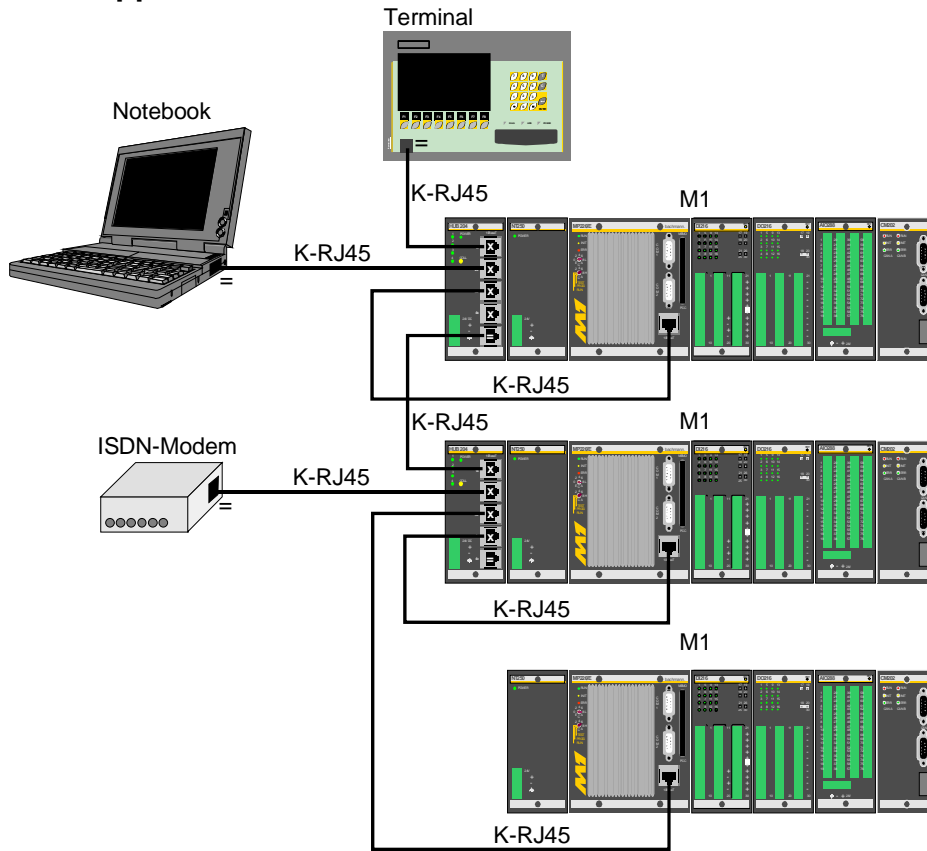
Application Examples

Only "straight" Ethernet cables are needed for standard applications. Cascading is done by connecting the "straight" connector (4=) of one module with one "crossed" connector (1x .. 4x) of the other module, also using a "straight" cable.



attention: Only one of the two connectors 4x or 4= may be used.

Standard Application



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