

## INSTALLATIONGUIDE

IE-MC Industrial Ethernet Media Converters allow transparent, low-cost and robust connections between copper and fiber media. Each of the two models supports full or half duplex operation.

They pass 100 Mbps data between 100BaseTX and 100BaseFX segments: The IE-MC-ST makes the fiber optic connection via ST-style connectors, whereas the IE-MC-SC does so via SC-style connectors.

Maximum distance with 62.5/125 µm fiber cables is 2 km in full-duplex mode, but segments operating in half-duplex mode are limited by the collision domain to 412 m.

Two front-panel DIP switches set the operational mode to full duplex, half duplex or transparent. The data rate on the fiber cable is matched automatically, but a connection to the copper partner is established only if the partner meets the connection requirements.

In transparent mode, auto-negotiation sets the data rate for twisted-pair and the mode to full- or half-duplex for all protocols-allowing 10/100BaseTX and 10BaseT devices to communicate over a fiber optic link.

Two RJ-45 connectors (one MDI-X port and one MDI port) allow either straight-through or crossover copper cabling. Several LEDs allow troubleshooting from front-panel observations.

All units mount on TS-32 or TS-35 DIN-rail, operate from a wide range of low-voltage AC or DC power and offer redundant power connections. Designed for Industrial Ethernet applications, all models comply with EMC immunity and emissions compatibility standards for industrial environments.

## SPECIFICATION

### Electrical

Input	DC	AC
Voltage:	10-36	V8-24 V
Power:	4 W	4 VA
Frequency:	N/A	47-63Hz

### Temperature

Operating	0°C to +60°C
Storage:	-40 C to +85°C

### Mounting

DIN-rail: TS-32 or TS-35

### Compliance

CE  
FCC, part 15, Class A  
EN50081-2  
EN50082-2



### Functional

Compliance:	ANSI/IEEE 802.3
Data Rates:	10/ 100 Mbps
Signaling:	(Connectors), [Cable distance]
Copper	LWL/ Wavelength (nm)
10BaseT	10BaseFL / 850*
100 BaseTX	100BaseFX / 1300**
(RJ450-100 m)	(*only ST, **SC and ST)
[0 to 100 m]	[2m to 2 km]

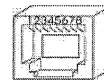
### LED-INDICATOR

Activity green	Power green
Data rate yellow/green	

### RJ-45 Connector Pin Assignments

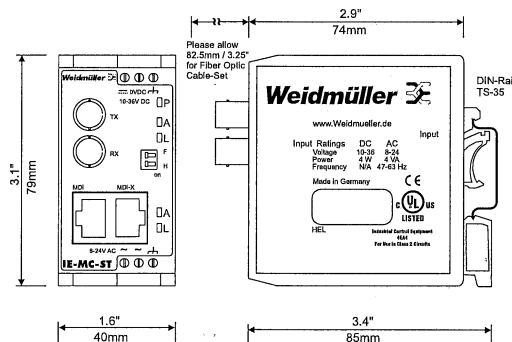
#### Pin Function

- 1 TD+
- 2 TD-
- 3 RD+
- 6 RD-



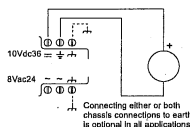
(All other RJ-45 pins are unused)

## DIMENSIONAL DRAWING

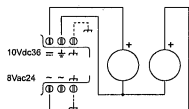


## POWER OPTIONS

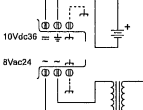
### DC POWERED



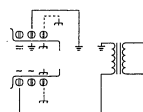
### REDUNDANT DC POWERED



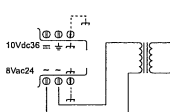
### AC POWERED WITH BATTERY BACKUP



### AC POWERED (grounded secondary)



### AC POWERED (ungrounded secondary)



### Power Considerations

Voltage in the range of 10-36 VDC or 8-24 VAC must deliver current commensurate with 4-watt power consumption; size conductors accordingly. Zero volts is tied to ground, but is isolated from the chassis. Inputs are reverse-polarity protected. Primary power can be backed-up by a DC supply or battery via redundant diode-isolated inputs, but separate means are needed for charging a battery.

### DIP Switch Settings

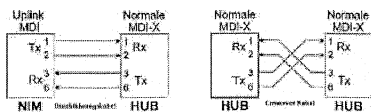
Set to F for Full Duplex or to H for Half Duplex. Set both switches left (off) for Transparent Mode where speed and duplex autonegotiate-if the fiber partner is TIA/EIA-785 compliant. If 2 IE-MC in Transparent Mode link 2 copper nodes via fiber, the copper nodes will negotiate directly with each other.

### LED Indicators

The power LED glows green when power is applied. Each port has 2 LEDs: A flashes green as data is transferred and L indicates the port data rate by color-green for 100 Mbps or yellow for 10 Mbps.

### Copper Cabling Option

A cabling option exists for copper lines: crossover wiring via the "normal" port (MDI-X); straight-through wiring via the "uplink" port (MDI). Note: the two RJ-45 ports can NOT be used simultaneously.



Uplink ports, standard ports

## WARRANTY FOR THIS PRODUCT

Weidmüller Interface GmbH & Co KG warrants this product to the original purchaser for five year from the product's shipping date. If a Weidmüller product fails to operate in compliance with its specification during this period, Weidmüller will, at its option, repair or replace the product at no charge. The customer is, however, responsible for shipping the product; Weidmüller assumes no responsibility for the product until it is received. This warranty does not cover repair of products that have been damaged by abuse, accident, disaster, misuse, or incorrect installation. Weidmüller's limited warranty covers products only as delivered. User modification may void the warranty if the modification damages the product, in which case this warranty does not cover repair or replacement. This warranty in no way warrants suitability of the product for any specific application.

### Manufacturer:

Weidmüller Interface GmbH & Co. KG  
Klingenbergstrasse 16

32758 Detmold  
Germany

## DECLARATION OF CONFORMITY

Applied Council Directives: EMC Directive 89/336/EEC as amended by 92/31/EEC & 93/68/EEC; General Product Safety Directive 92/59/EEC  
Standards to which Conformity is Declared: Information Technology Equipment - EN 55022:1995, Class A; EN 55024:1998