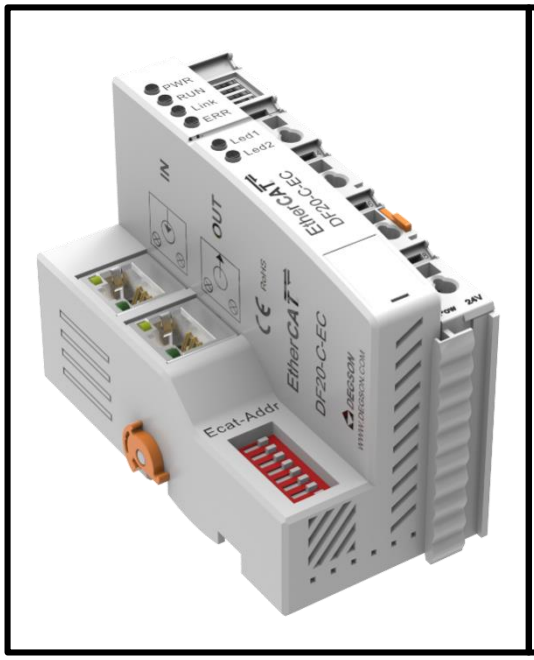
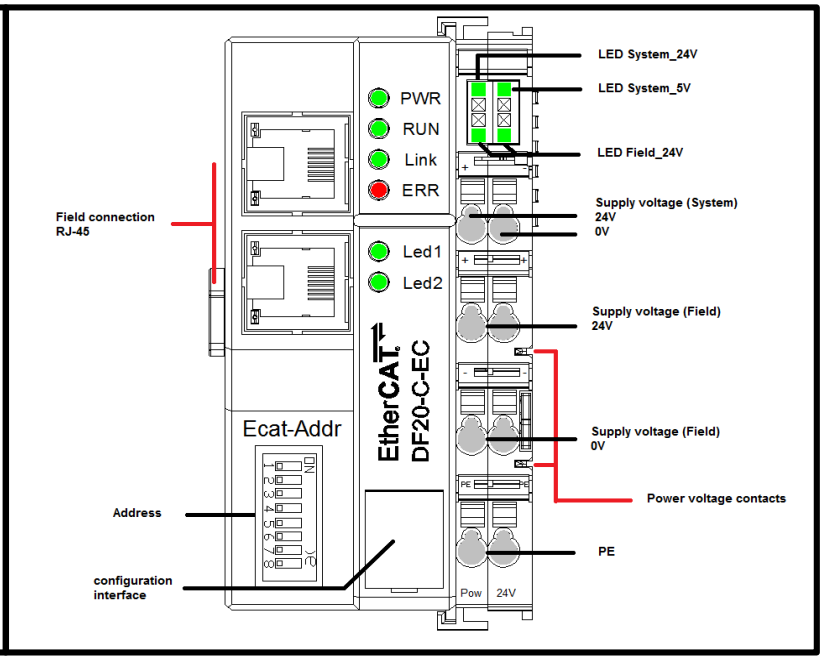
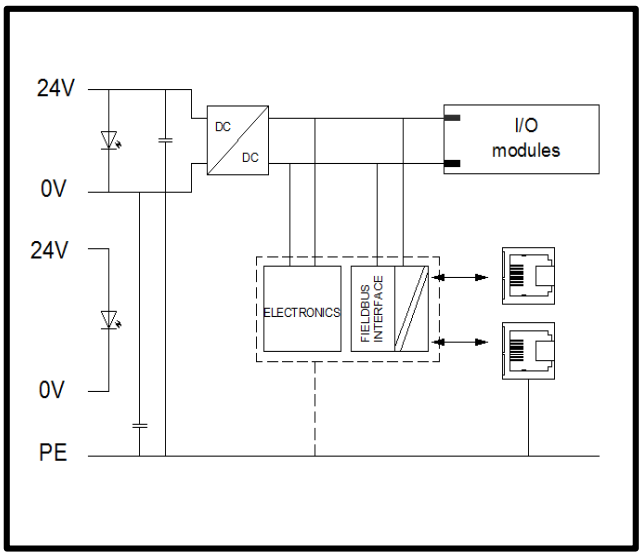
◆ EtherCAT FieldBus Adapter (DF20-C-EC)

- DF20-C-EC the fieldbus adapter from standing and ETHERCAT are linked together, as a ETHERCAT is open in the area of automation of industrial Ethernet standards. It automatically configures and generates local process images including analog, digital, and special functional modules. Analog module and special function module (word-by-word data transfer), digital module (bit-by-bit data transfer).
- The fieldbus coupler is integrated into the application as a ETHERCAT device.
- The coupler features an integrated 2-port switch, allowing easy line structure creation without additional network components.





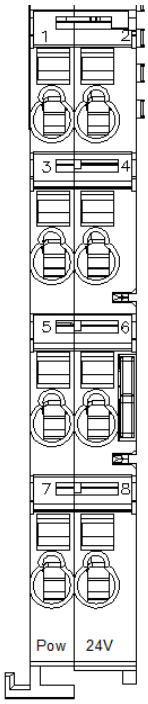


1.Specification

Technical data	
Communication	EtherCAT
Bus segment length (max.)	100M
Transmission medium	Twisted Pair S-UTP; 100 Ω; Cat. 5
Transmission rate	10/100Mbps, full duplex
Number of extensible modules	31
Address mapping	Yes
Alias range	1～254
PDO DATA	1024 bytes
Address setting	EtherCAT specification, DIP switch
Connection type	via pluggable connector (Spring terminal blocks)
Working voltage	24VDC（-15%～+20%）
Current without load	<150mA
Supply system voltage	5VDC
Supply system current	600mA
Supply field voltage	24V～32VDC；via power jumper contacts
Supply field current(max.)	5A
Isolation	500V system/field Electrical isolation
Connection data	
Connection technology: communication/fieldbus	EtherCAT: 2 x RJ-45
Connection technology: system supply	2 x via pluggable connector
Connection technology: field supply	6 x via pluggable connector
Connection type 1	System/field supply
Area of wire	0.2～2.5mm^2/28～14AWG
Strip length	8～9mm/0.31～0.35inches
Mounting type	DIN-35 RAIL
Material Data	
Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Conformity marking	CE
Environmental requirements	
Ambient temperature (operation)	-25～60℃
Surrounding air temperature (storage)	-40～85℃
Protection type	IP20
Pollution degree (5)	2，Per IEC 61131-2
Operating altitude	without temperature derating：0～2000m
Mounting position	Any
Relative humidity (without condensation)	5～95%RH
Vibration resistance	4g，Per IEC 60068-2-6
Shock resistance	15g，Per IEC 60068-2-27
EMC immunity to interference	Per EN 61000-6-2
EMC emission of interference	Per EN 61000-6-3
Exposure to pollutants	Per IEC 60068-2-42 and IEC 60068-2-43
Permissible pollutant concentration H2S at a relative humidity < 75%	10ppm
Permissible pollutant concentration SO2 at a relative humidity < 75%	25ppm

2.Hardware Interface

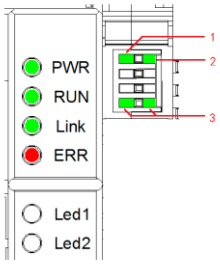
- **Wiring Terminal**



NO.	Definition	Description
1	System power 24V	Power the module. Give Goldfinger 5V.
2	System power 0V	
3	Field power 24V	Power the load.
4		
5	Field power 0V	
6		
7	PE	Protect Earthing
8		

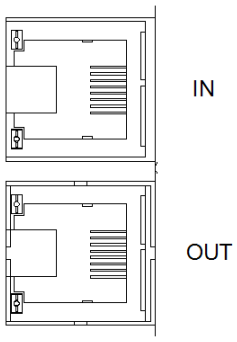
Notes：It is recommended to use two isolated 24V power supplies to provide two power supplies for the coupler respectively to achieve the best anti-interference performance.

- **LED Indicator**



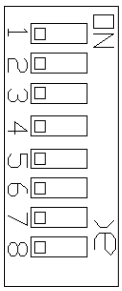
Indicator	Status	Description
PWR	Green: ON	Power Normal
	Green: OFF	Power Failure
RUN	Green: ON	I/O system is running
	Green: OFF	I/O system is stopping
Link	Green: Flash	Module to establish communication, there is data transmission
	Green: OFF	Module communication is not established
ERR	Red: ON	data exchanging failure
	Red: OFF	data exchanging normal
Led1	/	/
Led2	/	/
1	Green: ON	System Power Normal
	Green: OFF	System Power Failure
2	Green: ON	Goldfinger Power Normal
	Green: OFF	Goldfinger Power Failure
3	Green: ON	Field Power Normal
	Green: OFF	Field Power Failure

- **RJ45 Interface**



Used to establish communication with the upper computer.The coupler features an integrated 2-port switch, allowing easy line structure creation without additional network components.

- **DIP switch**

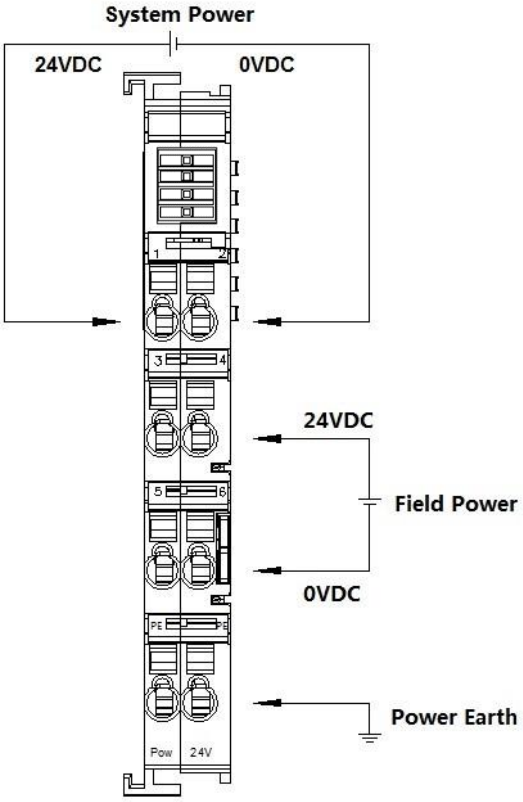


	OFF		ON
0	–	1	
0	–	2	
0	–	4	
0	–	8	
0	–	16	
0	–	32	
0	–	64	
0	–	128	

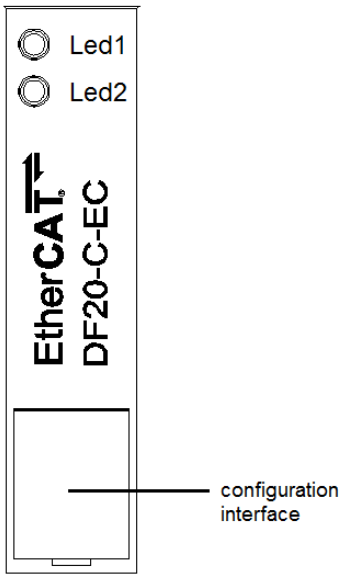
The DIP switch is used to set the adapter module address. It is set by an 8-bit hardware DIP switch. Each EtherCAT adapter has a unique station address (1 to 254).

- **Wiring**

Notes ： Only the right side of the adapter is captured here because of the aesthetics.



- **Configuration Interface**



Set the configuration interface to facilitate the adapter program upgrade.

Notes：Non-professionals and authorized personnel are prohibited from using this interface to avoid procedural problems.

3.Machinery installation

- **Dimension drawing**

The installation size is shown in the following figure (unit: mm):