

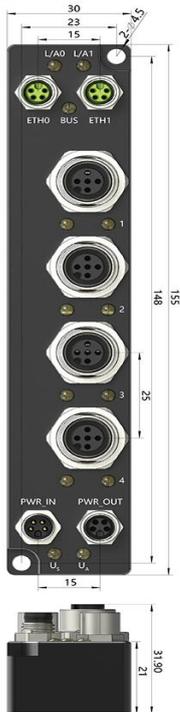
**Part number: 43-08007**  
**SAL-8-FK4-FS4-12-4FK5-8-ECFK4-ECFS4**

- EtherCAT protocol slave station
- 8-channel PNP input and output adaptive M12 5PIN A-code interface
- Integrated Ethernet switch function
- Port has short circuit, over-voltage, under-voltage, reverse connection protection
- IP67 protection level



**Basic parameters**

Shell material	Aluminum alloy
Shell color	Anodized black
Protection level	IP67, epoxy full potting
Dimensions	155mm×30mm×31.9mm
Weight	208g
Operating temperature	-25°C...70°C
Storage/transport temperature	-40°C...85°C
Operating humidity	5%...95%
Storage/transport humidity	5%...95%
Operating atmospheric pressure	80KPa...106KPa
Storage/transport atmospheric pressure	80KPa...106KPa
I/O port tightening torque	M12:0.5Nm
Application environment	Comply with EN-61131
Vibration test	Comply with IEC60068-2
Impact test	Comply with IEC60068-27
Free drop test	Comply with IEC60068-32
Electromagnetic compatibility (EMC)	Comply with IEC61000-4-2, -3, -4
Certification	CE, RoHS
Mounting hole size	Φ4.5mm×2



**Communication interface**

M8 A-code female



Pin	Definition	Description
1	TX+	Data sent +
2	RX+	Data received +
3	RX-	Data received -
4	TX-	Data sent -

**Port parameters**

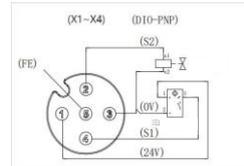
Connection mode	2×M8 A-code; 4-pin socket
Physical layer	Ethernet
Transmission speed	10/100 Mbps, full duplex
Characteristics	Protocol characteristics
Alarm function	Diagnostic alarm, process alarm
Minimum cycle time	1ms
Communication port tightening	M8: 0.5Nm

**I/O port wiring diagram Input/Output (X1-X4)**

M12 A-code Female



1. 24VDC+
2. Input/Output
3. 0 V
4. Input/Output
5. FE

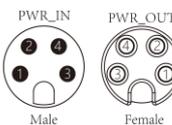


**Port parameters**

Number of input channels	8
Type	PNP
Input signal	3-wire PNP sensor or 2-wire passive signal
Input signal "0"	Low level 0~5V
Input signal "1"	High level 11~30V
Low level current	<1.5mA
High level current	>2mA
Switching threshold	EN 61131-2 Type 1/3
Switching frequency	250Hz
Input delay	20 μs
Maximum input supply current	200mA
Process data	1 byte input
I/O connection method	M12 5pin socket A-code
Number of output channels	8
Type	PNP
Output voltage	24V (follow UA)
Channel output current	0.5A/ch
Output diagnostic type	Point diagnosis
Synchronization factor	####
Switching frequency	250Hz
Load type	Resistance, inductance, lamp
Short circuit protection	Yes
Overload protection	Yes
Process data	1 byte output
I/O connection method	M12 5pin socket A-code

**Power port**

M8 A-code male/female



Pin	Definition	Description
1	+24V Us	System/Input power +24V
2	+24V Ua	Output power +24V
3	GND Us	System/Input power GND
4	GND Ua	Output power GND

※Us is the system and input power supply, Ua is the output power supply

**Port parameters**

Power connection method	M8 4-pin A-code male/female
System power voltage US	18...30 VDC (type. 24VDC)
Auxiliary power voltage UA	18...30 VDC (type. 24VDC)
Total current IS/IA	4A
Quiet operating current IC	≤150mA
Overvoltage protection	Yes
Power reverse connection prote	Yes
Power port tightening torque	M8:0.5Nm

**Module LED indicators**

PWR	Green: Power supply is normal
	Red: Module power supply is connected in reverse/UA power
IO	Green: Channel signal is normal
	Red: Port power supply short circuit/current is too large
LINK	Green: Link is normal, data communication is abnormal
	Yellow flashing: Link is normal, data communication is normal
	Off: Link is not established
BUS	Green: OP state
	Green slow flashing: SAFEOP state
	Green fast flashing: Pre-OP state
	Off: Init state
	Red and green flashing: Communication error

**I/O signal distribution table**

Input/Output	Byte	Bit0	Bit1	Bit2	Bit3	Bit4	Bit5	Bit6	Bit7
	0	X1P4	X1P2	X2P4	X2P2	X3P4	X3P2	X4P4	X4P2