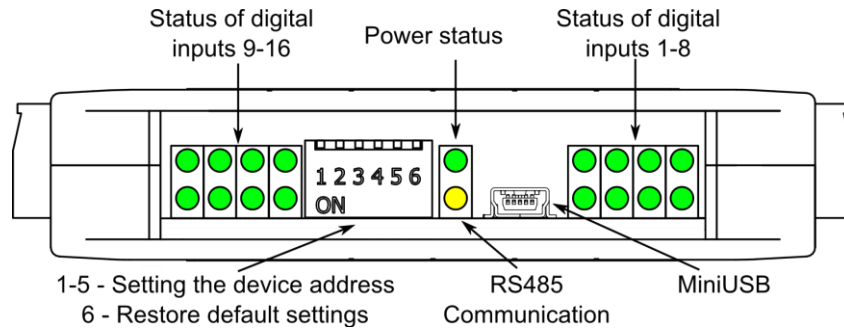


SFAR-S-16DI-M



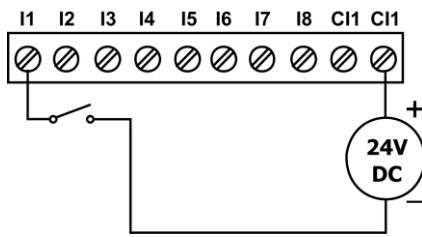
SPECIFICATION		
Supply	Voltage	10-38 V DC; 10-28 V AC
	Power consumption	2,4 W @ 24 V DC 3 VA @ 24 V AC
Digital Inputs	16x, logical "0": 0-3 V, logical "1": 6-36 V	
Counters	16x, Resolution 32 bits Frequency max 1 kHz	
	Non-volatile counters memory (FRAM)	
Galvanic isolation	Max 1500 V rms	
Interface	RS485, up to 128 devices on the bus	
Transmission speed	from 2400 to 115200 bps	
Ingress Protection	IP40 – for indoor installation	
Temperature	Operating -10°C - +50°C; Storage - 40°C - +85°C	
Relative humidity	5 to 95% RH (without condensation)	
Connectors	Max 2.5 mm ²	
Dimension	119,1 mm x 101 mm x 22,6 mm	
Mounting	DIN rail mounting (DIN EN 50022)	
Housing material	Plastic, self-extinguishing PC/ABS	

TOP PANEL

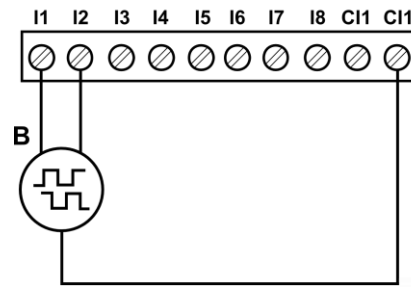


DIGITAL INPUTS

Connection of input

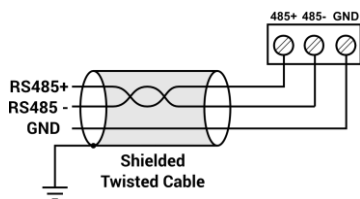


Connection of encoder



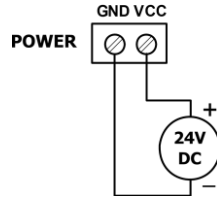
COMMUNICATION

RS485 Communication

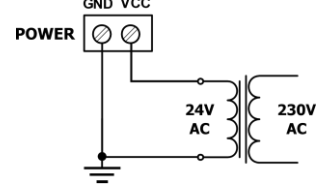


POWER SUPPLY

DC Voltage



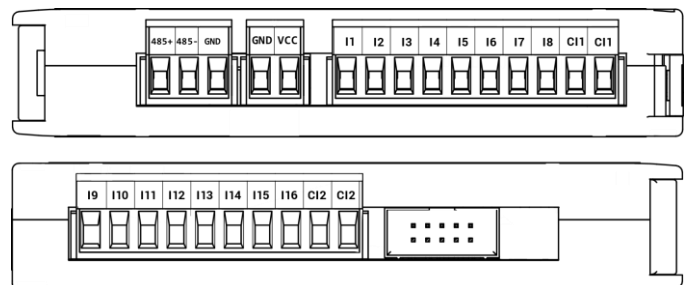
AC Voltage



WARNING

- Note, an incorrect wiring of this product can damage it and lead to other hazards. Make sure the product has been correctly wired before turning the power ON.
- Before wiring, or removing/mounting the product, be sure to turn the power OFF. Failure to do so might cause electric shock.
- Do not touch electrically charged parts such as the power terminals. Doing so might cause electric shock.
- Do not disassemble the product. Doing so might cause electric shock or faulty operation.
- Use the product within the operating ranges recommended in the specification (temperature, humidity, voltage, shock, mounting direction, atmosphere etc.). Failure to do so might cause fire or faulty operation.
- Firmly tighten the wires to the terminal. Insufficient tightening of the wires to the terminal might cause fire

TERMINALS OF THE DEVICE



Registered access

Modbus	Dec	Hex	Register Name	Access	Description
30001	0	0x00	Version/Type	Read	Version and Type of the device
30002	1	0x01	Switches	Read	Switches state
40003	2	0x02	Baud rate	Read & Write	RS485 baud rate
40004	3	0x03	Stop Bits & Data Bits	Read & Write	No of Stop bits & Data Bits
40005	4	0x04	Parity	Read & Write	Parity bit
40006	5	0x05	Response Delay	Read & Write	Response delay in ms
40007	6	0x06	Modbus Mode	Read & Write	Modbus Mode (ASCII or RTU)
40018	17	0x11	Inputs filter	Read & Write	Configuration of the inputs filter
40033	32	0x20	Received packets MSB	Read & Write	No of received packets
40034	33	0x21	Received packets LSB	Read & Write	
40035	34	0x22	Incorrect packets MSB	Read & Write	No of received packets with error
40036	35	0x23	Incorrect packets LSB	Read & Write	
40037	36	0x24	Sent packets MSB	Read & Write	No of sent packets
40038	37	0x25	Sent packets LSB	Read & Write	
30051	50	0x32	Inputs	Read	Inputs state
40053	52	0x34	Counter 1 MSB	Read & Write	32-bit counter 1
40054	53	0x35	Counter 1 LSB	Read & Write	
40054	54	0x36	Counter 2 MSB	Read & Write	32-bit counter 2
40056	55	0x37	Counter 2 LSB	Read & Write	
40057	56	0x38	Counter 3 MSB	Read & Write	32-bit counter 3
40058	57	0x39	Counter 3 LSB	Read & Write	
40059	58	0x3A	Counter 4 MSB	Read & Write	32-bit counter 4
40060	59	0x3B	Counter 4 LSB	Read & Write	
40061	60	0x3C	Counter 5 MSB	Read & Write	32-bit counter 5
40062	61	0x3D	Counter 5 LSB	Read & Write	
40063	62	0x3E	Counter 6 MSB	Read & Write	32-bit counter 6
40064	63	0x3F	Counter 6 LSB	Read & Write	
40065	64	0x40	Counter 7 MSB	Read & Write	32-bit counter 7
40066	65	0x41	Counter 7 LSB	Read & Write	
40067	66	0x42	Counter 8 MSB	Read & Write	32-bit counter 8
40068	67	0x43	Counter 8 LSB	Read & Write	
40069	68	0x44	Counter 9 MSB	Read & Write	32-bit counter 9
40070	69	0x45	Counter 9 LSB	Read & Write	
40071	70	0x46	Counter 10 MSB	Read & Write	32-bit counter 10

Modbus	Dec	Hex	Register Name	Access	Description
40072	71	0x47	Counter 10 LSB	Read & Write	32-bit counter 11
40073	72	0x48	Counter 11 MSB	Read & Write	
40074	73	0x49	Counter 11 LSB	Read & Write	32-bit counter 12
40075	74	0x4A	Counter 12 MSB	Read & Write	
40076	75	0x4B	Counter 12 LSB	Read & Write	32-bit counter 13
40077	76	0x4C	Counter 13 MSB	Read & Write	
40078	77	0x4D	Counter 13 LSB	Read & Write	32-bit counter 14
40079	78	0x4E	Counter 14 MSB	Read & Write	
40080	79	0x4F	Counter 14 LSB	Read & Write	32-bit counter 15
40081	80	0x50	Counter 15 MSB	Read & Write	
40082	81	0x51	Counter 15 LSB	Read & Write	32-bit counter 16
40083	82	0x52	Counter 16 MSB	Read & Write	
40084	83	0x53	Counter 16 LSB	Read & Write	32-bit value of captured counter 1
40085	84	0x54	CCounter 1 MSB	Read & Write	
40086	85	0x55	CCounter 1 LSB	Read & Write	32-bit value of captured counter 2
40087	86	0x56	CCounter 2 MSB	Read & Write	
40088	87	0x57	CCounter 2 LSB	Read & Write	32-bit value of captured counter 3
40089	88	0x58	CCounter 3 MSB	Read & Write	
40090	89	0x59	CCounter 3 LSB	Read & Write	32-bit value of captured counter 4
40091	90	0x5A	CCounter 4 MSB	Read & Write	
40092	91	0x5B	CCounter 4 LSB	Read & Write	32-bit value of captured counter 5
40093	92	0x5C	CCounter 5 MSB	Read & Write	
40094	93	0x5D	CCounter 5 LSB	Read & Write	32-bit value of captured counter 6
40095	94	0x5E	CCounter 6 MSB	Read & Write	
40096	95	0x5F	CCounter 6 LSB	Read & Write	32-bit value of captured counter 7
40097	96	0x60	CCounter 7 MSB	Read & Write	
40098	97	0x61	CCounter 7 LSB	Read & Write	32-bit value of captured counter 8
40099	98	0x62	CCounter 8 MSB	Read & Write	
40100	99	0x63	CCounter 8 LSB	Read & Write	32-bit value of captured counter 9
40101	100	0x64	CCounter 9 MSB	Read & Write	
40102	101	0x65	CCounter 9 LSB	Read & Write	32-bit value of captured counter 10
40103	102	0x66	CCounter 10 MSB	Read & Write	

Modbus	Dec	Hex	Register Name	Access	Description
40104	103	0x67	CCounter 10 LSB	Read & Write	32-bit value of captured counter 11
40105	104	0x68	CCounter 11 MSB	Read & Write	
40106	105	0x69	CCounter 11 LSB	Read & Write	32-bit value of captured counter 12
40107	106	0x6A	CCounter 12 MSB	Read & Write	
40108	107	0x6B	CCounter 12 LSB	Read & Write	32-bit value of captured counter 13
40109	108	0x6C	CCounter 13 MSB	Read & Write	
40110	109	0x6D	CCounter 13 LSB	Read & Write	32-bit value of captured counter 14
40111	110	0x6E	CCounter 14 MSB	Read & Write	
40112	111	0x6F	CCounter 14 LSB	Read & Write	32-bit value of captured counter 15
40113	112	0x70	CCounter 15 MSB	Read & Write	
40114	113	0x71	CCounter 15 LSB	Read & Write	32-bit value of captured counter 16
40115	114	0x72	CCounter 16 MSB	Read & Write	
40116	115	0x73	CCounter 16 LSB	Read & Write	Counter Configuration +1 – time measurement (if 0 counting impulses) +2 – autocatch counter every 1 sec +4 – catch value when input low +8 – reset counter after catch +16 – reset counter if input low +32 – encoder (only for counter 1 and 3)
40117	116	0x74	Counter Config 1	Read & Write	
40118	117	0x75	Counter Config 2	Read & Write	
40119	118	0x76	Counter Config 3	Read & Write	
40120	119	0x77	Counter Config 4	Read & Write	
40121	120	0x78	Counter Config 5	Read & Write	
40122	121	0x79	Counter Config 6	Read & Write	
40123	122	0x7A	Counter Config 7	Read & Write	
40124	123	0x7B	Counter Config 8	Read & Write	
40125	124	0x7C	Counter Config 9	Read & Write	
40126	125	0x7D	Counter Config 10	Read & Write	
40127	126	0x7E	Counter Config 11	Read & Write	
40128	127	0x7F	Counter Config 12	Read & Write	
40129	128	0x80	Counter Config 13	Read & Write	
40130	129	0x81	Counter Config 14	Read & Write	
40131	130	0x82	Counter Config 15	Read & Write	
40132	131	0x83	Counter Config 16	Read & Write	
40133	132	0x84	Catch	Read & Write	Catch counter
40134	133	0x85	Status	Read & Write	Captured counter