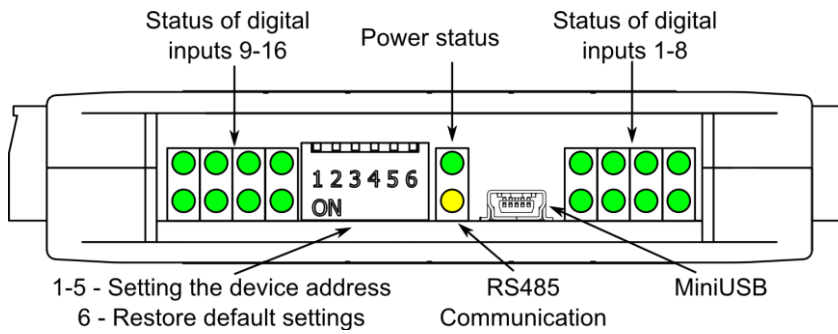


## SFAR-S-16DI



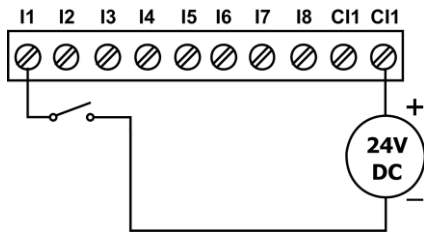
SPECIFICATION		
Supply	Voltage	10-38 V DC; 10-28 V AC
	Power consumption	2,4 W @ 24 V DC 3 VA @ 24 V AC
Digital Inputs	16x, logical "0": 0-3 V, logical "1": 6-36 V	
Counters	16x, Resolution 32 bits Frequency max 1 kHz	
Galvanic isolation	Max 1500 V rms	
Interface	RS485, up to 128 devices on the bus	
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 <sup>2</sup>	
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

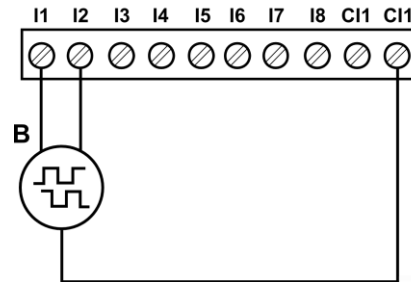


### DIGITAL INPUTS

#### Connection of input

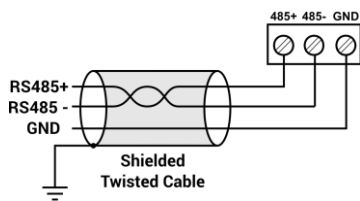


#### Connection of encoder



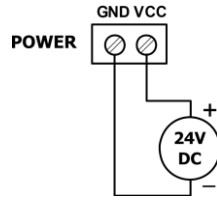
### COMMUNICATION

#### RS485 Communication

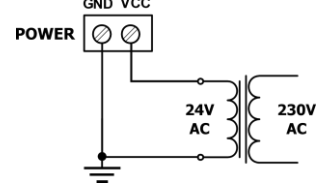


### POWER SUPPLY

#### DC Voltage



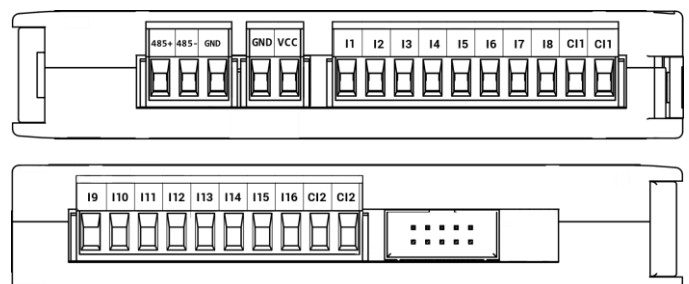
#### AC Voltage



### 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