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CE

Bistable switches with communication

BICOM432-40-WM1

BICOM432-40-WM1 is bistable switch with modbus communication over IR connection. Bistable switch is a switching device with two stable states for switching off/on all kind of electrical loads. When the switch is not initiated electrically, manually or over a IR communication path, remains stable in its operating position and will change its operating position on initiation or actuation. Switch is controllable over a IR communication interface always in a slave communication position. BICOM432-40-WM1 has built-in electro-mechanical check of the position status. BICOM432-40-WM1 is available as standalone unit, being also powered from own power source over an internal power supply.

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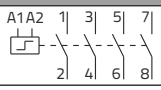
ECO FRIENDLY

Bistable switch with Infrared communication (IR) is special version for use in smart buildings, smart installations, demand-side-management and industry solutions. BICOM432-40-WM1 has four separated contacts for loads up to 32 A.

Infrared communication

AC

Type	Rated current I_e	Control voltage at 50 Hz	Wiring diagram	Ordering No.	Weight (g)	Packaging (pcs)
BICOM432-40-WM1	32 A	230 V		30.074.038	250	1

Technical characteristics

Dimensions

Bistable Switches with communication
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TECHNICAL DATA

	Type	Symbol	Unit	BI432-40-WM1
GENERAL	Standards			IEC/EN 60669-2-2
	Approvals			CE, CB
	Module width			2
	Number of poles			4
	Degree of protection			IP20
	Pollution degree			3
	Climatic conditions			95 % relative humidity
	Ambient temperature (open)		°C	-25 ... +55 (>55 ... +70 at max. impulse duration which is 1 min)
	Storage temperature		°C	-30 ... +80
	Maximum altitude U_i and U_e is reduced for 1.2 % and I_e for 0.4 % for every additional 100 m		m	2000
	Number of contactors or switches side-by-side: ≤40 °C (40 ... 55) °C (55 ... 70) °C			 no limitation max. 3 max. 1
	Noise level (operation)		dB	0 (coil voltage is switched off)
	Vibration resistance according to IEC/EN 60068-2-6	a	g	3 (Z axix)
	Shock resistance according to IEC/EN 6068-2-27	a	g	15 (Z axis)
	Maximum operating frequency with no load		op./h	450
	Mechanical endurance		op. c.	1.000.000
	Weight		g	195
MAIN CIRCUIT	Contact reliability			≥10 V; ≥100 mA
	Minimum distance of open contacts		mm	>3
	Power dissipation per pole		W	3
	Overload current withstand capability: 10 s		A	96
	Maximum back-up fuse for short-circuit protection gL and gG: coordination type 1	I_v	A	32
	Rated insulation voltage	U_i	V	440
	Rated impulse withstand voltage	U_{imp}	kV	4
	Rated operational voltage	U_e	V	440
	Rated frequency	f	Hz	50/60
	Thermal current	I_{th}	A	32
	Rated operational current for cosj = 0.6 acc. to IEC/EN 60669-2-2			32
	Maximum operating frequency for cosj = 0.6 acc. to IEC/EN 60669-2-2		op./h	450
	Electrical endurance for cosj = 0.6 acc. to IEC/EN 60669-2-2		op. c.	100.000
	Rated operational current for AC-1, AC-7a and AC-21	I_e	A	32
	Operational power for AC-1, AC-7a and AC-21: single-phase 230 V three-phase 230 V three-phase 400 V	P_e	kW	7 12.1 21
	Maximum operating frequency for AC-1, AC-7a and AC-21		op./h	450
	Electrical endurance for AC-1, AC-7a and AC-21		op. c.	100.000
	Rated operational current for AC-2	I_e	A	16
	Operational power for AC-2: single-phase 230 V three-phase 230 V three-phase 400 V	P_e	kW	2.4 4.1 7.2
	Maximum operating frequency for AC-2		op./h	120
	Electrical endurance for AC-2		op. c.	100.000
	Rated operational current for AC-3, AC-7b and AC-23	I_e	A	12
	Operational power for AC-3, AC-7b and AC-23: single-phase 230 V three-phase 230 V three-phase 400 V	P_e	kW	1.1 3 5.5
	Maximum operating frequency for AC-3, AC-7b and AC-23		op./h	450
	Electrical endurance for AC-3, AC-7b and AC-23		op. c.	100.000
	Rated operational current for AC-5a (at 230 V)	I_e	A	16
	Maximum operating frequency for AC-5a		op./h	450
	Electrical endurance for AC-5a		op. c.	100.000
	Rated operational current for AC-5b (at 230 V)	I_e	A	16
	Maximum operating frequency for AC-5b		op./h	450
	Electrical endurance for AC-5b		op. c.	20.000

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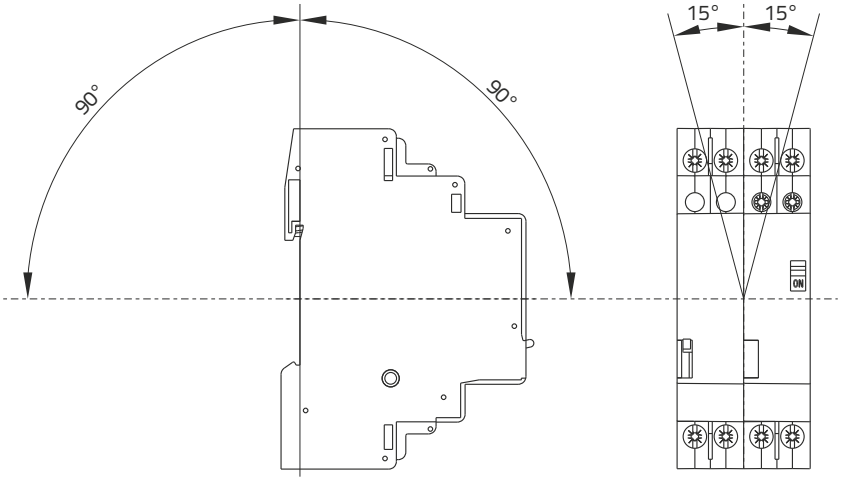
TECHNICAL DATA

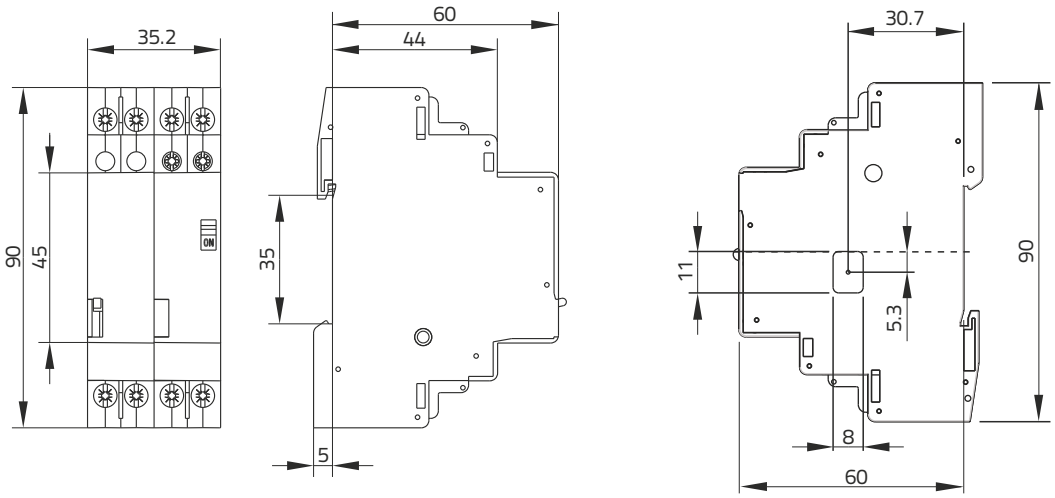
	Type	Symbol	Unit	BI432-40-WM1
MAIN CIRCUIT	Rated operational current for AC-6a (at 230 V)	I_e	A	4.5
	Maximum operating frequency for AC-6a		op./h	450
	Electrical endurance for AC-6a		op. c.	100.000
	Switching of capacitors AC-6b and AC-7c (at 230 V)	C	µF	150
	Maximum operating frequency for AC-6b and AC-7c		op./h	450
	Electrical endurance for AC-6b and AC-7c		op. c.	100.000
	Rated operational current for DC-1 (L/R ≤ 1 ms):	I_e	A	
	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			32/25/20/7/0.7
	2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			32/28/22/12/6
	3 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			32/32/28/22/18
	4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			32/32/32/25/20
	Maximum operating frequency for DC-1		op./h	300
	Electrical endurance for DC-1		op. c.	100.000
	Rated operational current for DC-3 (L/R ≤ 2 ms):	I_e	A	
	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			18/10/4/1.2/0.3
	2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			32/18/14/5/0.8
	3 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			32/30/28/18/4
	4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			32/32/30/22/10
	Maximum operating frequency for DC-3		op./h	300
	Electrical endurance for DC-3		op. c.	100.000
	Rated operational current for DC-5 (L/R ≤ 7.5 ms):	I_e	A	
	1 pole 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			18/6/3/0.8/0.1
	2 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			32/16/12/4/0.6
	3 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			32/28/25/16/3
	4 poles in series 24 V DC/48 V DC/60 V DC/110 V DC/ 220 V DC			32/30/28/18/8
	Maximum operating frequency for DC-5		op./h	300
	Electrical endurance for DC-5		op. c.	100.000
	Terminal capacity:	S	mm^2	
	rigid (solid and stranded)			1 ... 10
	flexible			1 ... 10
	Length of removed wire insulation		mm	9
	Screw			M4
	Screw head			PZ2
	Tightening torque		Nm	1.2
COIL	Range of control voltage for switch-on	U_c	%	90 ... 110
	Range of control voltage for drop out	U_c	%	AC: 75 ... 20 / DC: 75 ... 10
	Kind of voltage			AC or DC
	Standard control voltages	U_c	V	230
	Frequency of AC control voltage	f	Hz	AC: 50 or 60
	Control mode			remote control with impulse voltage / manual control
	Impulse duration of control voltage:			
	minimum			AC: 50 ms / DC: 100 ms
	optimum - recommended			AC: 100 ... 500 ms / DC: 150 ... 500 ms
	maximum (only in case of breakdown of control system)			AC: 1 hour / DC: 1 minute
	Minimum duration between two impulses of control voltage		ms	AC: 150 / DC: 500
	Surge immunity withstand voltage 1.2/50 µs acc. to standard IEC/EN 61000-4-5		kV	3
	Consumption:		VA/W	
	switch on/off operation			AC: 18/13 / DC: 9/9
	stand-by			AC: 0,7/0,5 / DC: 0,7/0,5
	Delays:		ms	
	make			AC: 5 ... 20 / DC: 8 ... 35
	brake			AC: 5 ... 20 / DC: 8 ... 35
	Terminal capacity:		mm^2	
	rigid (solid and stranded)			1 ... 4
	flexible			1 ... 4
	Length of removed wire insulation		mm	7
	Screw			M3
	Screw head			PZ1
	Tightening torque		Nm	0.6

Bistable Switches with communication
Operation Position, Dimensions

Operation position



Dimension



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