MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6ED1052-1FB00-0BA4

RELAY-OUTPUT LOGIC CONTROLLER

Used with the applicable LOGO! 0BA4 230RC configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens 6ED1052-1FB00-0BA4 technical data and applicable product instructions

A Technical data

A.1 General technical data

Criterion	Tested in accordance with	Values
LOGO!Basic: Dimensions (WxHxD) Weight Installation		 72 x 90 x 55 mm Approx. 190 g on a 35 mm profile rail 4 module widths or wall mounting
LOGO! expansion module: Dimensions (WxHxD) Weight Installation		 36 x 90 x 55 mm Approx. 90 g on a 35 mm profile rail 4 module widths or wall mounting
Climatic conditions		
Ambient temperature Horizontal installation Vertical installation	Low temperature to IEC 60068-2-1 High temperature to IEC 60068-2-2	 0 ... 55 ˚C 0 ... 55 ˚C
Storage/shipping		–- 40 ˚C ... +70 ˚C
Relative humidity	IEC 60068-2-30	From 10 to 95 % no condensation
Air pressure		795 ... 1080 hPa
Pollutants	IEC 60068-2-42 IEC 60068-2-43	SO_2 10 cm^3 /m^3, 4 days H_2S 1 cm^3 /m^3, 4 days

Criterion	Tested in accordance with	Values
Ambient mechanical conditions		
Protection mode		IP20
Vibrations:	IEC 60068-2-6	5 ... 9 Hz (constant amplitude 3.5 mm) 9 ... 150 Hz (constant acceleration 1 g)
Shock	IEC 60068-2-27	18 shocks (half-sine wave 15g/11 ms)
Drop	IEC 60068-2-31	Drop height 50 mm
Free fall (packaged)	IEC 60068-2-32	1 m
Electromagnetic compatibility (EMC)		
Noise emission	EN 55011/A EN 55022/B EN 50081-1 (domestic area)	Limit class B group 1
Electrostatic discharge	IEC 61000-4-2 Severity 3	8 kV air discharge 6 kV contact discharge
Electromagnetic fields	IEC 61000-4-3	Field strength 10 V/m
HF currents on cables and cable shielding	IEC 61000-4-6	10 V
Burst pulses	IEC 61000-4-4 Severity 3	2 kV (supply and signal lines)
High-energy surge pulse (applies only to LOGO! 230 ...)	IEC 61000-4-5 Severity 3	1 kV (power lines) symmetrical 2 kV (power lines) asymmetrical
Safety to IEC / VDE		
Clearance and creepage distance rating	IEC 60664, IEC 61131-2, EN 50178 cULus to UL 508, CSA C22.2 No. 142 With LOGO! 230 R/RC, also VDE 0631	Fulfilled
Insulation strength	IEC 61131-2	Fulfilled

A.2 Technical data: LOGO! 230... and LOGO! DM8 230R

	LOGO! 230 RC LOGO! 230 RCo	LOGO! DM8 230R
Power supply		
Input voltage	115...240 V AC/DC	115...240 V AC/DC
Permissible range	85 ... 265 V AC 100 ... 253 V DC	85 ... 265 V AC 100 ... 253 V DC
Permissible mains frequency	47 ... 63 Hz	47 ... 63 Hz
Power consumption		
• 115 V AC	10 ...40 mA	10 ... 30 mA
• 240 V AC	10 ... 25 mA	10 ... 20 mA
• 115 V DC	5 ... 25 mA	5 ... 15 mA
• 240 V DC	5 ... 15 mA	5 ... 10 mA
Voltage failure buffering		
• 115 V AC/DC	typ. 10 ms	typ. 10 ms
• 240 V AC/DC	typ. 20 ms	typ. 20 ms
Power loss at		
• 115 V AC	1.1 ... 4.6 W	1.1 ... 3.5 W
• 240 V AC	2.4 ... 6.0 W	2.4 ... 4.8 W
• 115 V DC	0.5 ... 2.9 W	0.5 ... 1.8 W
• 240 V DC	1.2 ... 3.6 W	1.2 ... 2.4 W
Backup of the real-time clock at 25 °C	typ. 80 h	
Accuracy of the real-time clock	typ. ±2 s / day	
Digital inputs		
Number	8	4
Electrical isolation	No	No

	LOGO! 230 RC LOGO! 230 RCo	LOGO! DM8 230R
Input voltage L1		
• Signal 0	< 40 V AC	< 40 V AC
• Signal 1	> 79 V AC	> 79 V AC
• Signal 0	< 30 V DC	< 30 V DC
• Signal 1	> 79 V DC	> 79 V DC
Input current at		
• Signal 0	< 0.03 mA	< 0.03 mA
• Signal 1	> 0.08 mA	> 0.08 mA
Delay time at		
• 0 to 1	typ. 50 ms	typ. 50 ms
• 1 to 0	typ. 50 ms	typ. 50 ms
Line length (unshielded)	100 m	100 m
Digital outputs		
Number	4	4
Output type	Relay outputs	Relay outputs
Electrical isolation	Yes	Yes
In groups of	1	1
Control of a digital input	Yes	Yes
Continuous current I_{th}	max. 10 A per relay	max. 5 A per relay
Incandescent lamp load (25000 switching cycles) at		
230/240 V AC	1000 W	1000 W
115/120 V AC	500 W	500 W
Fluorescent tubes with ballast (25000 switching cycles)	10 x 58 W (at 230/240 V AC)	10 x 58 W (at 230/240 V AC)
Fluorescent tubes, conventionally compensated (25000 switching cycles)	1 x 58 W (at 230/240 V AC)	1 x 58 W (at 230/240 V AC)

	LOGO! 230 RC LOGO! 230 RCo	LOGO! DM8 230R
Fluorescent tubes, uncompensated (25000 switching cycles)	10 x 58 W (at 230/240 V AC)	10 x 58 W (at 230/240 V AC)
Short circuit-proof cos 1	Power protection B16 600A	Power protection B16 600A
Short-circuit proof cos 0.5 to 0.7	Power protection B16 900A	Power protection B16 900A
Derating	none; across the entire temperature range	none; across the entire temperature range
Parallel output circuits for power increase	Not permitted	Not permitted
Protection of output relay (if desired)	max. 16 A, characteristic B16	max. 16 A, characteristic B16
Switching rate		
Mechanical	10 Hz	10 Hz
Ohmic load/lamp load	2 Hz	2 Hz
Inductive load	0.5 Hz	0.5 Hz

E Order numbers

Table A

Variant	Designation	Order number
Basic	LOGO! 12/24 RC *	6ED1052-1MD00-0BA4
	LOGO! 24):	6ED1052-1CC00-0BA4
	LOGO! 24 RC (AC)	6ED1052-1HB00-0BA4
	LOGO! 230 RC	6ED1052-1FB00-0BA4
Basic without display (pure)	LOGO! 12/24 RCo *	6ED1052-2MD00-0BA4
	LOGO! 24o *	6ED1052-2CC00-0BA4
	LOGO! 24 RCo (AC)	6ED1052-2HB00-0BA4
	LOGO! 230 RCo	6ED1052-2FB00-0BA4
Digital modules	LOGO! DM 8 12/24R	6ED1055-1MB00-0BA1
	LOGO! DM 8 24	6ED1055-1CB00-0BA0
	LOGO! DM 8 24R	6ED1055-1HB00-0BA0
	LOGO! DM 8 230R	6ED1055-1FB00-0BA1
Analog modules	LOGO! AM 2	6ED1055-1MA00-0BA0
	LOGO! AM 2 PT100	6ED1055-1MD00-0BA0

*: Also with analog inputs