

1

General

The **XA2 VA** digital display unit comprises 2 parts:

- the head, fitted into a Ø 22.3 mm hole on the support panel and held in position by a locking ring,
- the body, which clips onto the rear of the head.

The head contains the 7 segment LED display (height 14 mm) + decimal point, and the body contains all the electronic decoding and supply circuitry.

Connection is made to screw connectors.

Grouping of 2 displays is possible, using the double legend plate holder.

Type	7 segment LED + decimal point (height: 14 mm)
Mounting	Panel mounting in Ø 22.3 mm hole Grouping facility (2 display units): <ul style="list-style-type: none">- mechanically: by double legend plate holder (associated reading) or- electrically: connecting in parallel (multiplexing for version with memory)

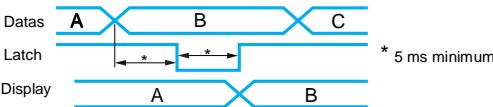
Environment

Ambient air temperature	For operation: - 25...+ 70 °C For storage: - 40...+ 85 °C
Vibration resistance	10 gn (10...500 Hz) conforming to IEC 68-2-6
Shock resistance	180 gn, duration 11 ms, conforming to IEC 68-2-27
Electric shock protection	Class II, conforming to IEC 536 and NF C 20-030
Degree of protection	IP 65 conforming to IEC 529 and NF C 20-010

Electrical characteristics

Product certifications	UL (Listed) - CSA
Supply voltage	24 V --- (consumption: 40 mA max.)
Voltage limits	13 V (70 mA) to 30 V (36 mA max.)
Protection	Against reverse polarity
Logic inputs	State 0: - 30 V (0 mA) to + 5 V (1.4 mA) State 1: + 13 V (4 mA) to + 30 V (9.5 mA) These inputs must be connected to PLC solid-state PNP type outputs, positive logic
Connection	Screw connectors Clamping capacity: 0.5 x 2.5 mm ² .

Change of value displayed



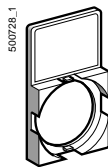
References



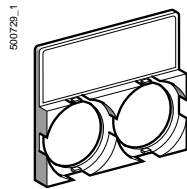
ZA2 VA1●



ZA2 VA0●



ZA2 BZ35●●



ZA2 VZ31●●

Description		Reference	Weight kg
Body	Decimal + BCD	ZA2 VA11	0.060
	BCD + Latch	ZA2 VA12	0.060
Head	Green	ZA2 VA03	0.020
	Red	ZA2 VA04	0.020
	Yellow	ZA2 VA05	0.020
Single legend plate holder with blank legend plate	Black or red background legend plate	ZA2 BZ35101	0.001
	White or yellow background legend plate	ZA2 BZ35102	0.001
Double legend plate holder with blank legend plate	Black or red background legend plate	ZA2 VZ3101	0.005
	White or yellow background legend plate	ZA2 VZ3102	0.005
Tightening tool	For head locking ring	ZA2 BZ905	0.060

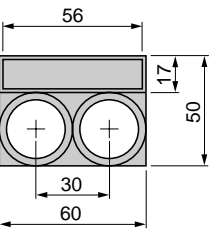
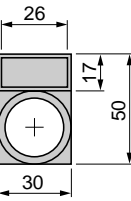
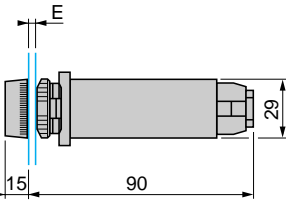
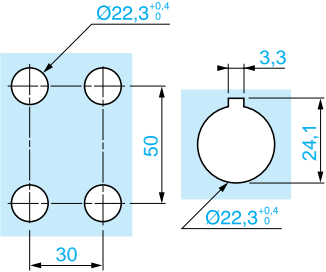
Dimensions

Panel cut-out
(CENELEC EN 50007)

Digital display unit
ZA2 VA1● + ZA2 VA0●

Legend plate holder
ZA2 BZ3510●

ZA2 VZ310●



E = panel thickness, 1 to 5 mm

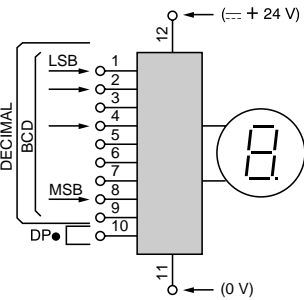
Connections and input tables

Decimal + BCD

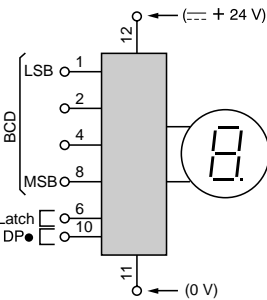
BCD + Latch

Decimal

BCD



DP = decimal point



Latch = memory

1	2	3	4	5	6	7	8	9	Display
0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	1
0	1	0	0	0	0	0	0	0	2
0	0	1	0	0	0	0	0	0	3
0	0	0	1	0	0	0	0	0	4
0	0	0	0	1	0	0	0	0	5
0	0	0	0	0	1	0	0	0	6
0	0	0	0	0	0	1	0	0	7
0	0	0	0	0	0	0	1	0	8
0	0	0	0	0	0	0	0	1	9

8	4	2	1	Display	8	4	2	1	Display
0	0	0	0	0	1	0	0	1	9
0	0	0	1	1	1	0	1	0	A
0	0	1	0	2	1	0	1	1	B
0	0	1	1	3	1	1	0	0	C
0	1	0	0	4	1	1	0	1	D
0	1	0	1	5	1	1	1	0	E
0	1	1	0	6	1	1	1	1	F
0	1	1	1	7					
1	0	0	0	8					

BCD = binary coded decimal

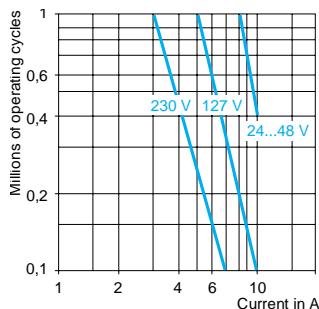
1

Environment	
Conformity to standards	IEC 947-5-1, EN 60 947-5-1, IEC 337-1, VDE 0660-200
Product certifications	Standard version: CSA A600-Q600, LRO
Protective treatment	Standard version: "TC"
Ambient air temperature	Operation: - 25...+ 70 °C. Storage: - 40...+ 70 °C
Operating position	All positions
Vibration resistance	5 gn (40 Hz < frequency < 500 Hz) conforming to IEC 68-2-6
Shock resistance	20 gn conforming to IEC 68-2-27
Electric shock protection	Class I, conforming to IEC 536 and NF C 20-030
Degree of protection	IP 66 conforming to IEC 529 and NF C 20-010
Mechanical life	1 million operating cycles

Contact block characteristics	
Rated operational characteristics	~ AC-15; A300 or Ue = 240 V and Ie = 3 A --- DC13; Q300 or Ue = 250 V and Ie = 0.27 A conforming to IEC 947-5-1 Appendix A
Rated insulation voltage	Ui: 500 V conforming to IEC 947-1; degree of pollution 3; 600 V conforming to UL 508 and CSA C 22-2 n° 14
Rated impulse withstand voltage	U imp = 6 kV conforming to IEC 947-1
Contact operation	Slow break N/O
Short-circuit protection	10 A cartridge fuse type gG (gl) or N conforming to IEC 947-5-1, VDE 0660-200
Terminal referencing	Conforming to CENELEC EN 50013
Rated operational power	Conforming to IEC 947-5-1 Appendix C. Utilisation categories AC-15 and DC-13. Operating rate: 3600 operating cycles/hour. Load factor: 0.5

1.6

a.c. supply ~ 50-60 Hz
~ Inductive circuit



d.c. supply ---
Power broken in W
for 1 million operating cycles

Voltage V	24	48	120
~ W	65	48	40

Electrical reliability	Failure rate < 1 fault for 100 million operating cycles (programmable controller inputs, --- 24 V)
Connection	- Screw and captive cable clamp terminals. Clamping capacity: min. 1 x 0.5 mm ² , max., with or without cable end: 2 x 1.5 mm ² - 6.3 mm Faston connectors (on request)

94172



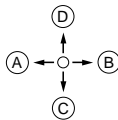
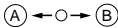
XD2 GA8211

94173

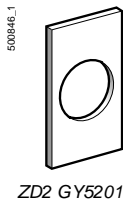


XD2 GA8441

Complete units type XD2 G, with chromium plated metal bezel					
Interchangeable contacts					
Description	Operation	Spring return to zero position	Bezel finish	Reference	Weight kg
2 direction Fixing centres 90 x 90 mm	1 notch 1 N/O contact per direction	Without	Shiny	XD2 GA8211	0.300
			Black	XD2 GA82117	0.300
		With	Shiny	XD2 GA8221	0.300
			Black	XD2 GA82217	0.300
		Without	Shiny	XD2 GA8231	0.500
			Black	XD2 GA82317	0.500
	2 notches 2 N/O contacts per direction	With	Shiny	XD2 GA8241	0.500
			Black	XD2 GA82417	0.500
		1 st notch stay put 2 nd notch with spring return to 1 st notch	Shiny	XD2 GA8251	0.500
			Black	XD2 GA82517	0.500
4 direction Fixing centres 90 x 90 mm	1 notch 1 N/O contact per direction	Without	Shiny	XD2 GA8411	0.330
			Black	XD2 GA84117	0.330
		With	Shiny	XD2 GA8421	0.330
			Black	XD2 GA84217	0.330
		Without	Shiny	XD2 GA8431	0.550
			Black	XD2 GA84317	0.550
	2 notches 2 N/O contacts per direction	With	Shiny	XD2 GA8441	0.550
			Black	XD2 GA84417	0.550
		1 st notch stay put 2 nd notch with spring return to 1 st notch	Shiny	XD2 GA8451	0.550
			Black	XD2 GA84517	0.550

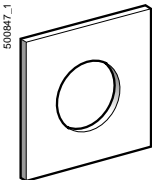


1



ZD2 GY5201

1.6



ZD2 GY6201



ZB2 BE101

Legend plates				
Description	Text	Colour	Reference	Weight kg
2 direction 40 x 64 mm	Without	Black one side, red reverse	ZD2 GY5201	0.002
		White one side, yellow reverse	ZD2 GY5401	0.002
	With (1) (specify when ordering)	Black background, white letters	ZD2 GY5002	0.002
		Red background, white letters	ZD2 GY5004	0.002
		White background, black letters	ZD2 GY5001	0.002
		Yellow background, black letters	ZD2 GY5005	0.002
4 direction 64 x 64 mm	Without	Black one side, red reverse	ZD2 GY6201	0.003
		White one side, yellow reverse	ZD2 GY6401	0.003
	With (1) (specify when ordering)	Black background, white letters	ZD2 GY6002	0.003
		Red background, white letters	ZD2 GY6004	0.003
		White background, black letters	ZD2 GY6001	0.003
		Yellow background, black letters	ZD2 GY6005	0.003

Contact blocks			
Description	Contact	Reference	Weight kg
Slow break Additional or replacement	N/O	ZB2 BE101	0.015

(1) 2 lines of 11 characters maximum per direction.

Other versions

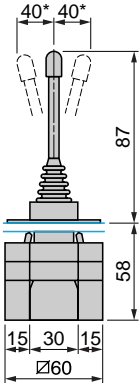
XD2 G joystick controllers with:

- variable composition; 2, 3, 4 or 8 direction,
- contact blocks with Faston connectors conforming to NF C 20-120,
- gold flashed contacts for low power switching.

Please consult your Regional Sales Office.

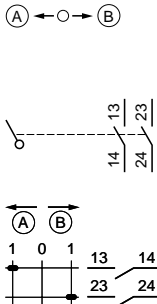
XD2 GA●●

1 notch
1 N/O contact per direction

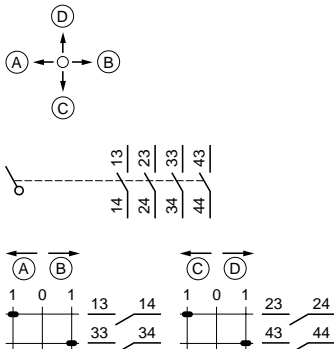


* in each of the 4 directions

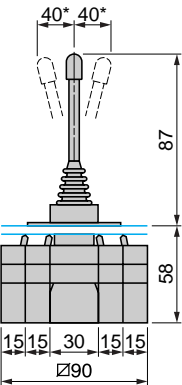
XD2 GA8211, GA82117
XD2 GA8221, GA82217



XD2 GA8411, GA84117
XD2 GA8421, GA84217

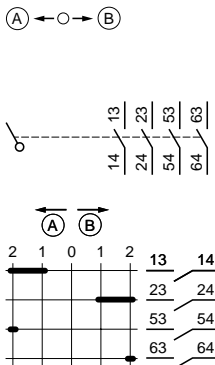


2 notches
2 N/O contacts per direction

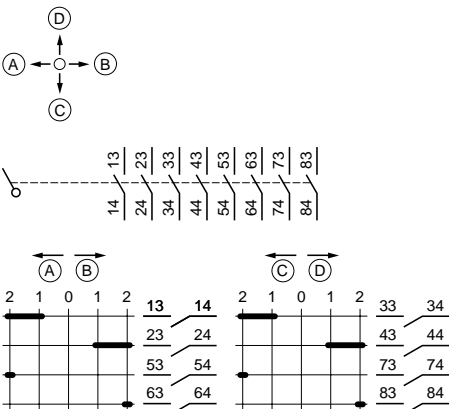


* in each of the 4 directions

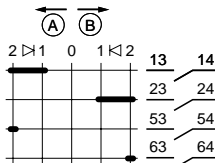
XD2 GA8231, GA82317
XD2 GA8241, GA82417



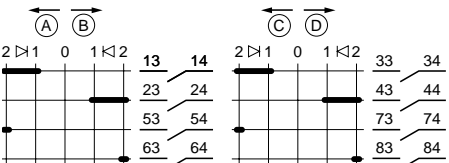
XD2 GA8431, GA84317
XD2 GA8441, GA84417



XD2 GA8251, GA82517



XD2 GA8451, GA84517



Panel cut-out
(thickness 1 to 6 mm)
XD2 GA (2 and 4 direction)

