

Counters

24 x 48 digital counters

Types FKA01, FKA02, FKA03

CARLO GAVAZZI



- 8-digit LCD display
- 8 mm digits
- Reset button with locking function
- 8 years battery lifetime
- 2 inputs (FKA01, FKA02); 1 input (FKA03)
- Up-down counting mode (through electrical control)
- For front panel mounting
- 24 x 48 mm housing
- Filter function for bounce-free counting with mechanical contacts

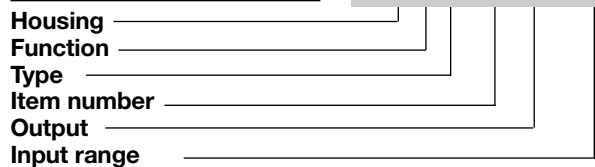
Product Description

24 x 48 mm up to 2 inputs up-down counters for flush mounting. NPN, PNP or voltage inputs allow connection to any type of sensors or

open collector output. The front key, which can be locked, allows fast and easy counting reset.

Ordering Key

FKA 01 X 724



Type Selection

Mounting	Input	Counting mode	Max. counting frequency	Housing	Model
Front panel	NPN	Adding/Subtracting	7 KHz	24 x 48 mm	FKA01X724
Front panel	NPN and PNP	Adding/Subtracting	12 KHz	24 x 48 mm	FKA02X724
Front panel	Voltage	Adding	30 Hz	24 x 48 mm	FKA03XW24

Input Specifications

Input A (FKA01) Input type Low level High level Max counting frequency Input resistance	NPN open collector 0 to 0,7 V DC 3 to 30 V DC 7 kHz ≈1 MΩ	Input B (Reset) (FKA03) Input type Low level High level Min pulse time Max counting frequency Input resistance	Voltage (10 to 260 V AC/DC) (galvanic insulation) 0 to 2 V AC/DC 10 to 260 V AC/DC 16 ms 30 Hz ≈160 kΩ
Input A (FKA02) Input type Low level High level Max counting frequency Input resistance	PNP open collector 0 to 0,7 V DC 4 to 30 V DC 12kHz ≈100 kΩ	Reset (FKA01, FKA02) Input type Low level High level Min pulse time Input resistance	NPN open collector 0 to 0,7 VDC 3 to 30 V DC 50 ms ≈2 MΩ
Input A (FKA03) Input type Low level High level Min pulse time Max counting frequency Input resistance	Voltage (10 to 260 V AC/DC) (galvanic insulation) 0 to 2 V AC/DC 10 to 260 V AC/DC 16 ms 30 Hz ≈160 kΩ	Electrical locking of the reset key Input type Low level High level Input not active Input in contact with GND Input resistance	NPN open collector 0 to 0,7 V DC 3 to 5 V DC Reset key locked Reset key unlocked ≈2,2 MΩ
Input B (FKA01, FKA02) Input type Low level High level Max counting frequency Input resistance	NPN open collector 0 to 0,7 V DC 3 to 30 V DC 30 Hz ≈1 MΩ	Operating mode switch (FKA01, FKA02) Input type Low level High level Input not active Input in contact with GND Input resistance	NPN open collector 0 to 0,7 V DC 3 to 5 V DC Adding mode Subtracting mode ≈2,2 MΩ



General Specifications

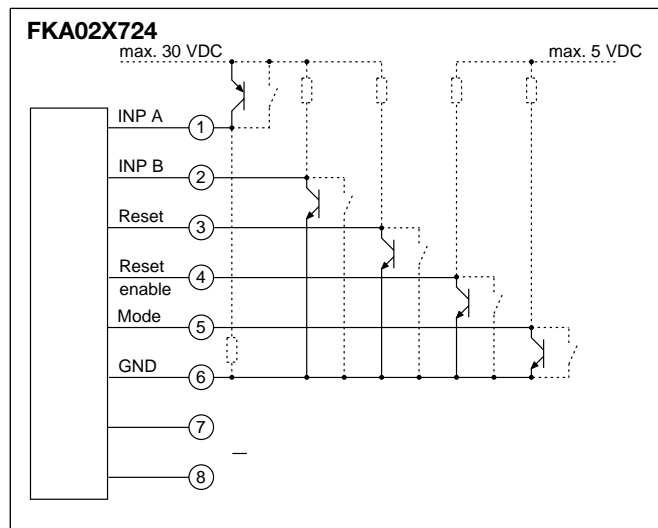
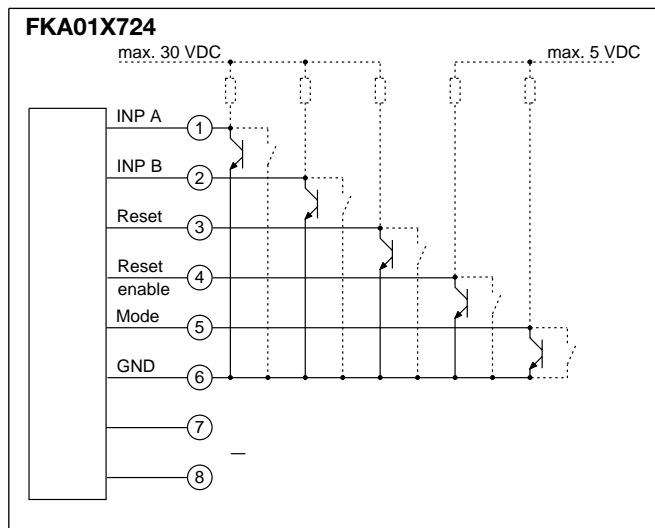
Power supply	Non-replaceable lithium battery (lifetime up to 8 years at 20°C)	Housing dimensions	24 x 48 mm
Overvoltage category (FKA03: Inp A, Inp B)	II (EN 61010 Part 1)	Weight	50 g
Display		Panel cut out	22,2 ^{+0,3} x 45 ^{+0,6} mm
Counting range FKA01, FKA02 FKA03	-9999999 to 99999999 0 to 99999999	Screw terminals Tightening torque	Max. 0.5 Nm according to IEC EN 60947
Counting direction FKA01, FKA02 FKA03	Up or down Up	CE Marking	Yes
Digit height	8 mm	EMC Immunity Emission	Electromagnetic Compatibility According to EN61000-6-2 According to EN55011 Class B
Environment	(EN 60529)		
Degree of protection	IP 65 front		
Pollution degree	2		
Operating temperature	-10° to +55°C, R.H.<85%		
Storage temperature	-20° to +70°C		

Pin assignment and adjustable operating modes

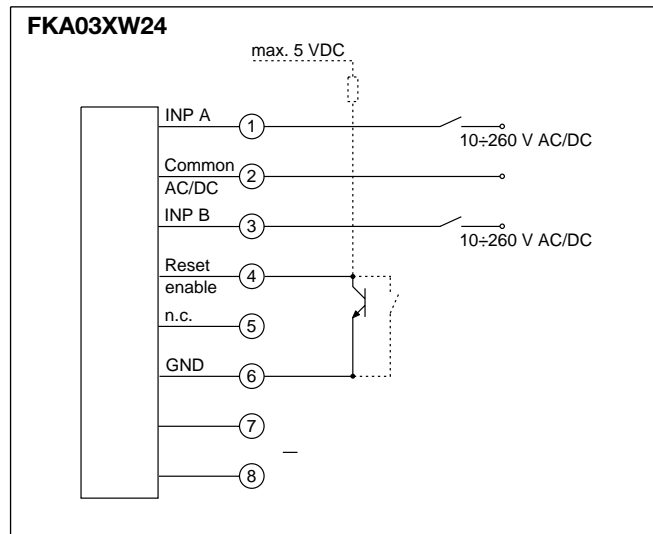
Screw terminal	1	2	3	4	5	6	7	8	
Designation	INP A	INP B	Reset	Reset Enable	Operating mode control inputs (Mode)		GND	-	-
Model	INP A	INP B	Reset	Reset Enable	Operating mode control inputs (Mode)		GND	-	-
FKA01X724	7 kHz (NPN)	30 Hz (NPN)	Reset input (NPN)	Reset key locking input (NPN)	Not active = Adding	Contact with GND = Subtracting	0 VDC	No function	No function
FKA02X724	12 kHz (PNP)								

Screw terminal	1	2	3	4	5	6	7	8	
Designation	INP A	Common		INP B	Reset Enable	-	GND	-	-
Model	INP A	Common		INP B	Reset Enable	-	GND	-	-
FKA03XW24	Count input	Common connection for INP A and INP B		Reset input	Reset key locking input (NPN)	No function	0 VDC	No function	No function

Wiring Diagram



Wiring Diagram (cont.)



Dimensions

