

Counters

24 x 48 digital counters

Types FKA01, FKA02, FKA03



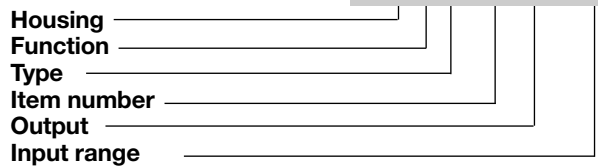
- 8-digit LCD display
- 8 mm digits
- Reset button with locking function
- 8 years battery lifetime
- 2 inputs (FKA01, FKA02); 1 input (FKA03)
- Up-down counting mode (through electrical control)
- For front panel mounting
- 24 x 48 mm housing
- Filter function for bounce-free counting with mechanical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

Product Description

24 x 48 mm up to 2 inputs 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	Model
Front panel	NPN or voltage free contact	Adding/Subtracting	7 KHz	FKA01X724
Front panel	NPN, PNP or voltage free contact	Adding/Subtracting	12 KHz	FKA02X724
Front panel	Voltage	Adding	30 Hz	FKA03XW24

Input Specifications

Input A (FKA01) Input type Low level High level Max counting frequency Input resistance	NPN open collector or voltage free contact 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 or voltage free contact 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 or voltage free contact 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 or voltage free contact 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 or voltage free contact 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 or voltage free contact 0 to 0,7 V DC 3 to 5 V DC Adding mode Subtracting mode ≈2,2 MΩ



General Specifications

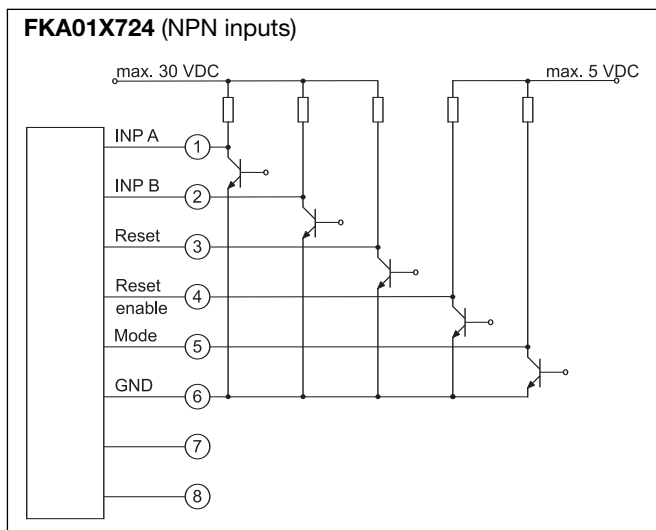
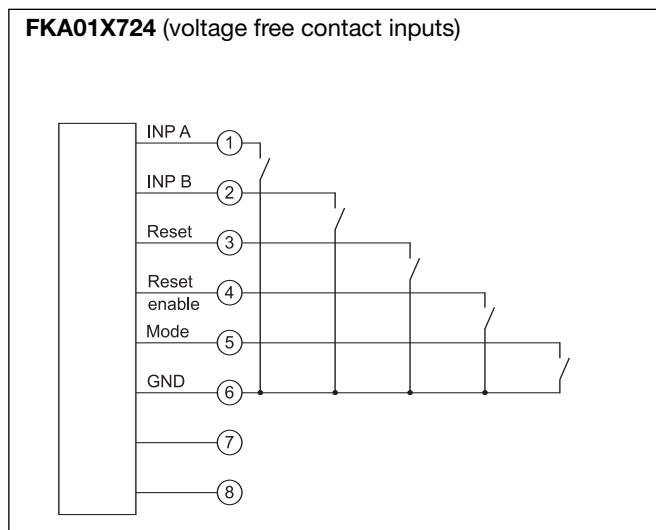
Power supply	Non-replaceable lithium battery (lifetime up to 8 years at 20°C)	Housing dimensions	24 x 48 mm
Overvoltage category (FKA03: Inp A, Inp B)	II (EN 61010 Part 1)	Weight	50 g
Display		Panel cut out	22,2 ^{+0,3} x 45 ^{+0,6} mm
Counting range FKA01, FKA02 FKA03	-9999999 to 99999999 0 to 99999999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

Pin assignment and adjustable operating modes

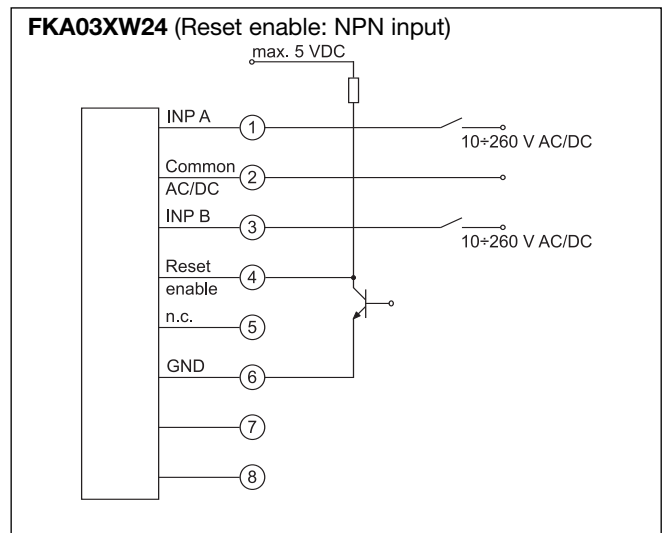
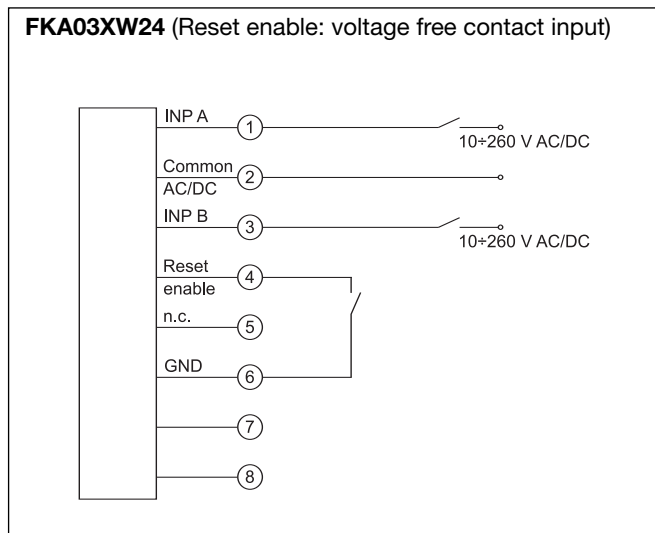
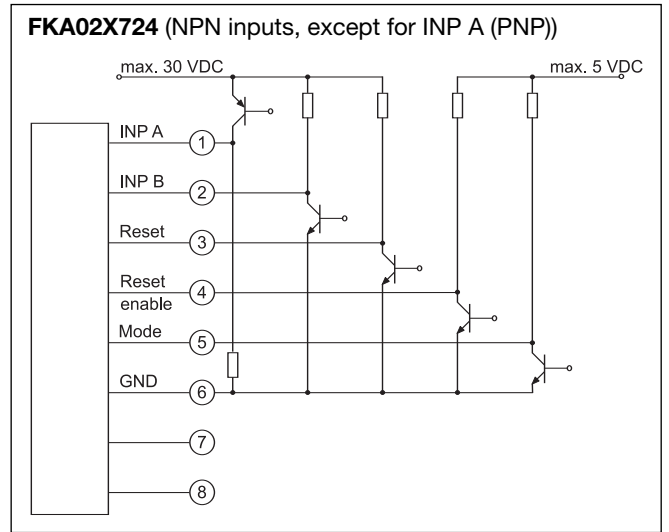
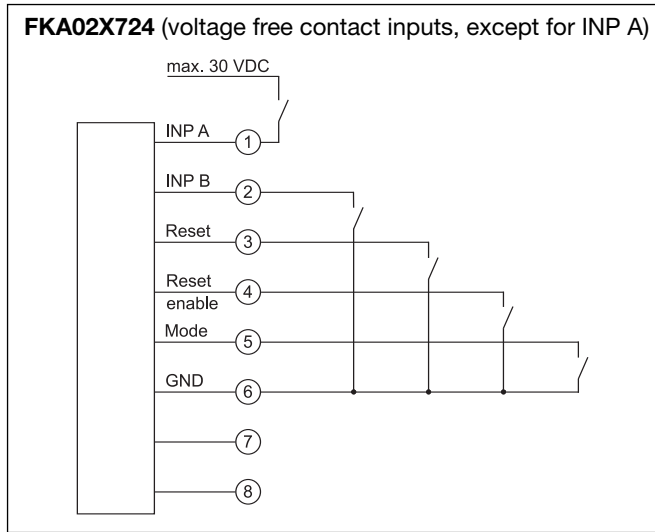
Screw terminal	1	2	3	4	5	6	7	8	
Designation	INP A	INP B	Reset	Reset Enable	Operating mode control inputs (Mode)		GND	-	-
Model									
FKA01X724	7 kHz (NPN)	30 Hz (NPN)	Reset input (NPN)	Reset key locking input (NPN)	Not active = Adding	Contact with GND = Subtracting	0 VDC	No function	No function
FKA02X724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

Screw terminal	1	2	3	4	5	6	7	8	
Designation	INP A	Common		INP B	Reset Enable	-	GND	-	-
Model									
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

