

Counters

Totalising counters, predetermining counters and totalising timers

Type of device	XBK-T totalising counters		XBK-H totalising timer	
Type of display	mechanical	LCD	mechanical	LCD
Environment				
Conforming to standards	EN 50081-2, EN 50082-2	EN 50081-2, EN 50082-2 EN 61010	EN 50081-2, EN 50082-2, VDE 0435	EN 50081-2, EN 50082-2 EN 61010
Product certifications	UL, CSA (pending) except XBK-T60000U00M	UL, C-UL (pending)	UL, CSA (pending)	UL, C-UL (pending)
Temperature	Operation	° C - 10...+ 50 except XBK-T60000U00M : - 10...+ 70		- 10...+ 50
	Storage	° C - 20...+ 60 except XBK-T60000U00M : - 40...+ 85		- 25...+ 70 - 20...+ 60
Degree of protection according to IEC 529	IP 40 except XBK-T60000U00M : IP 65	IP 54	IP 65	IP 54
Vibration resistance according to IEC 68-2-6	5 gn (10 to 150 Hz)	1 gn (10 to 150 Hz)	3 gn (10 to 150 Hz)	1 gn (10 to 150 Hz)
Shock resistance according to IEC 68-2-27	30 gn (6 ms)	10 gn (18 ms)	30 gn (11 ms)	10 gn (18 ms)
Protection against electric shocks	Class II according to IEC 536			
Mounting and fixing	Flush-mounting element	Flush-mounting unit fixed by a clamp	Flush-mounting unit fixed by a self-locking clamp	
Connection	By AMP lugs on a cable connector		On screw terminal block	
Characteristics				
Supply voltage	V	--- 24 ± 10 % --- 48 ± 10 % ~ 115 ± 10 %	Battery	~ 24 ± 10 % 50 Hz ~ 115 ± 10 % 50 Hz ~ 230 ± 10 % 50 Hz Battery
Consumption	W/VA	XBK-T50000U10M, XBK-T50000U08M and XBK-T70000U00M : 1.5 XBK-T50000U11M : 2.5 XBK-T60000U10M and XBK-T80000U00M : 2.5 XBK-T60000U11M : 2.75 XBK-T60000U00M : 0.155	–	XBK-T70000001M : 0.56 XBK-T70000002M : 1 XBK-T70000004M : 0.08 –
Counting frequency	Hz	10, 20, 25	7500	–
Backup capacity		Permanent	7 years	Permanent 7 years
Number of digits		5, 6, 7 or 8	8	7 8
Precision of display		99999... 99999999	99999999	99999.99 h 999999.99 h
Character height	mm	4	7	5 7
Counting mode		Adding	Adding (Input resistance : 50 kΩ)	Adding 1/100 of an hour
Reset to zero		With or without	With	Without With
Type of reset to zero		Manual	Manual with electric locking	– Manual with electric locking
Inputs	Function	Count		Enable
	Type	Contact	Transistor : PNP ≥ 8 V or NPN ≤ 0.7 V	Contact Transistor : PNP ≥ 8 V or NPN ≤ 0.7 V
	Amplitude	V	– ± 40 V max	– ± 40 V max
Mechanical life		10 million pulses except XBK-T60000U10M and T80000U00M : 200 million	–	–
Minimum length of pulse	ms	–	15 at 30 Hz, 0.07 at 7.5 kHz	–

Type of device		XBK-P5	XBK-P6
Type of display		Mechanical	LED or LCD
Environment			
Conforming to standards		EN 50081-2 and EN 50082-2, EN 61010	
Product certifications		XBK-P5●●●D●●M : CSA (pending) XBK-P5●●●U●●M : UL/CSA (pending)	UL, C-UL (pending)
Temperature	Operation	° C - 10...+ 50	0...+ 50
	Storage	° C - 40...+ 85	- 20...+ 70
Degree of protection according to IEC 529		IP 40	IP 65
Vibration resistance according to IEC 68-2-6		5 gn (10 to 150 Hz)	1 gn (10 to 150 Hz) according to IEC 68-2-6
Shock resistance according to IEC 68-2-27		30 gn (6 ms)	10 gn (18 ms) according to IEC 68-2-27
Protection against electric shocks		Class II according to IEC 536	
Mounting and fixing		Removable, flush-mounting element Fixing by screws on the front plate	Flush-mounting unit with fixing by self-locking clamp using needle screws
Characteristics			
Supply voltage	V	≐ 24 ± 10 %	≐ 24 or ~ 230 ± 10 % or ~ 115 ± 10 %
Sensor supply voltage	V	None	≐ 12 to 24 (50 mA max) for XBK-P6●●30G32E or XBK-P6●●30G31E
Consumption		2.5 W	150 mA ≐ 24 V, 50 mA ~ 230 or ~ 115 V
Counting frequency	Hz	25	5000 (2500 on bi-directional counting)
Number of digits		5	6
Display capacity		99999	999999
Character height	mm	4	7.6 (LED) or 9 (LCD)
Number of presets		1	1 or 2
Display of the preset		Adding (continuous) or subtracting (non continuous)	Non continuous
Counting mode		Adding or subtracting	5 programmable modes : - single counter input, - single counter with phase discriminator, - differential inputs, - summing inputs, - counting direction input. (Counter input resistance 5 kΩ)
Reset		Adding from zero Subtracting from the preset value	2 modes : reset to zero and reset to the preset value
Type of reset		Manual or manual and electric	Manual, electric and automatic
Type of input signals		Contact (20 VA/220 V/1 A max)	Transistor : PNP ≥ 8 V or NPN ≤ 2 V Amplitude ± 40 V max
Type of outputs		Contact (volt-free)	Changeover relay (response time 5 ms) : ≐ 5 V < U _c < ≐ 30 V ~ 5 V < U _c < ~ 250 V 10 mA < I < 1 A PNP transistor : at 12...24 V, 10 mA max
Connection		By AMP lugs on a cable connector	On screw terminal block
Minimum length of counting pulse	ms	–	17 at 30 Hz 0.1 at 5 kHz