

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Smart "Compact" range without display CB20 Smart Part number 88974034



- Efficient and economical version, without display or keys setting
 Allow the use of the entire library of specific functions blocs of the software workshop
- Extended temperature range (-30 °C →+70 °C)
- Analogue inputs 0-10 VDC, Potentiometer, NTC, LDR (0-20 mA/Pt100 with converters)

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Type	Inputs	Outputs	Supply
88974034 CB20 Smart	12 digital	8 relays 8 A	24 V AC

Specifications

General environment	t characteristics	for CR CD Y	ID YR YR and	I YE product types

General environment characteristics for CB, CD, X	
Certifications	CE, UL, CSA, GL
Conformity to standards (with the low voltage directive and EMC directive)	IEC/EN 61131-2 (Open equipment) IEC/EN 61131-2 (Zone B) IEC/EN 61000-6-2, IEC/EN 61000-6-3 (*) IEC/EN 61000-6-4 (*) Except configuration (88 970 1.1 or 88 970 1.2) + (88 970 250 or 88 970 270) + 88 970 241 class A (class B in a metal enclosure)
Earthing	Not included
Protection rating	In accordance with IEC/EN 60529 : IP40 on front panel IP20 on terminal block
Overvoltage category	3 in accordance with IEC/EN 60664-1
Pollution	Degree : 2 in accordance with IEC/EN 61131-2
Max operating Altitude	Operation : 2000 m Transport : 3048 m
Mechanical resistance	Immunity to vibrations IEC/EN 60068-2-6, test Fc Immunity to shock IEC/EN 60068-2-27, test Ea
Resistance to electrostatic discharge	Immunity to ESD IEC/EN 61000-4-2, level 3
Resistance to HF interference	Immunity to radiated electrostatic fields IEC/EN 61000-4-3 Immunity to fast transients (burst immunity) IEC/EN 61000-4-4, level 3 Immunity to shock waves IEC/EN 61000-4-5 Radio frequency in common mode IEC/EN 61000-4-6, level 3 Voltage dips and breaks (AC) IEC/EN 61000-4-11 Immunity to damped oscillatory waves IEC/EN 61000-4-12
Conducted and radiated emissions	Class B (*) in accordance with EN 55022, EN 55011 (CISPR22, CISPR11) group 1 (*) Except configuration (88 970 1.1 or 88 970 1.2) + (88 970 250 or 88 970 270) + 88 970 241 class A (class B in a metal enclosure)
Operating temperature	-20 →+70 °C except CB and XB versions in VDC : -30 →+70 °C (+40 °C in a non-ventilated enclosure) in accordance with IEC/EN 60068-2-1 and IEC/EN 60068-22
Storage temperature	-40 →+80 °C in accordance with IEC/EN 60068-2-1 and IEC/EN 60068-2-2
Relative humidity	95 % max. (no condensation or dripping water) in accordance with IEC/EN 60068-2-30
Mounting	On symmetrical DIN rail, 35 x 7.5 mm and 35 x 15 mm, or on panel (2 x Ø 4 mm)
Screw terminals connection capacity	Flexible wire with ferrule = 1 conductor: 0.25 to 2.5 mm ² (AWG 24AWG 14) 2 conductors 0.25 to 0.75 mm ² (AWG 24AWG 18)
	Semi-rigid wire = 1 conductor : 0.2 to 2.5 mm ² (AWG 25AWG 14) Rigid wire = 1 conductor : 0.2 to 2.5 mm ² (AWG 25AWG 14)
	2 conductors 0.2 to 2.5 mm² (AWG 25AWG 14) Tightening torque = 0.5 N.m (4.5 lb-in) (tighten using screwdriver diam. 3.5 mm)
	Also valid for spring cage connectors (ref 88 970 313 and 88 970 317 for the RBT range)

General characteristics

-30 →+70 °C (DC) ; -20 →+70 °C (AC)

Concentration Concentratio	02/11/2015			www.crouzet.com	
Processing characteristics of CR, CD, DA SA Proceduring Services	Operating factor				
Control of Control o	Chause at home and the	` '			
Programmy review Participation (ASS 200 pilot 60 pilot 60 pilot (ASS 200 pilot 60 p					
Programmers					
Program membry					
Total minimum		` '	ks maximur	n per macro	
Processor Proc		The state of the s		n por madio	
EMPROV See BROOD words					
Set to 1					
Program and settings in the controler - 15 years	·				
Popular and Jestings in the Sub-In memory - 10 years					
Page	Back up and in the event of power failure				
Ledder Spicially 20 ms					
Peace this in Input acquisition times 10 x 2 cycle times	Cycle time				
Cock dard Dink's Zampiero (List Text Principles (List Text Pri	Response time				
6 shrowth is a 55 of with user definate correction of with	•				
1	Clock drift	Drift < 12 min/year (at 25 °C)			
Start pure on power use		`	ift)		
Characteristics of products with AC power supplied					
Supply					
Normal prolates	Characteristics of products with AC power suppli	ed			
15 % / 40 % 15 % / 40 % 15 % / 40 % 15 % / 40 % 15 % / 40 % 15 % / 40 % 15 % / 40 % 15 % / 40 % 15 % / 40 % 15 % / 40 % 15 % / 40 % 15 % / 40 % 15 % / 40 % 15 % / 40 % 15 % / 40 % 15 % / 40 % 15 % / 40 % 15 % / 40 % 10 ms (repetition 20 times) 10 ms (reptition 20 times) 10 ms (repetition 20 ti					
or 20 A V AC—28 B V AC Short Interpretively rangin Sibility 14 (4) ** (+ 6 %) = 6 %) or 47 —35 Hz57 —63 Hz immunity from mone power cuts 10 ms (repetition 20 times) 10 ms (repetition 20 times) 11 ms (repetition 20 times) 11 ms (repetition 20 times) 12 VA XDD-XB10 visit valuation 1: 2 VA XDD-XB26 visit valuation 1: 1 VA XDD-XB26	·	-			
Supply Requency range 0500 htz (+4 % / -6 %) 07 / -33 htz 50 / 00 htz (+4 % / -6 %) or 47 -33 htz 50 / 00 htz (+4 % / -6 %) or 47 -33 htz 50 / 00 htz (+4 % / -6 %) or 47 -33 htz 50 / 00 htz (+4 % / -6 %) or 47 -33 htz 50 / 00 htz (+4 % / -6 %) or 47 -33 htz 50 / 00 htz 50 htz	Operating limits		,	• 1	
Description	Supply frequency range				
CB12 CD12 XD10 XD10 :	- Cappy madashay ranga		50/60 Hz	(+ 4 % / - 6 %) or 47 →53 Hz/57 →63 Hz	
CBB0-CDB0 : FVA X010-XB10 with extension : 7.5 VA X010-XB10 with extension : 12 VA X026-XB26 with extension : 10 VA X026-XB26 with extension : 10 VA X026-XB26 with extension : 10 VA X026-XB26 with extension : 17					
X010-X810 with extension : 7.5 VA X010-X810 with extension : 12 VA X026-X826 x; 5.5 VA X026-X826 with votersion : 17 VA	Max. absorbed power				
Mode Nation Note					
Input Inpu					
Input voltage					
Input current	Isolation voltage	1780 V AC	1780 V A	C	
Input current	Inputs				
1.24 m A gr 24.0 V AC 1.25	·	1		100 →240 V AC (-15 % / +10 %)	
6.3 m & @ 28.8 V AC	Input current			0.24 mA @ 85 V AC	
Logic 1 voltage threehold				0.75 mA @ 264 V AC	
Making-current at logic state	Input impedance	4.6 kΩ		350 kΩ	
Copic ovoltage threshold					
Response time with LADDER programming					
Some Some Some Some Some Some Some Some Some State 01 (50/60 Hz) State					
State 01 (50/60 Hz) Response time with function blocks programming Configurable in increments of 10 ms 50 ms min. up to 255 ms 51ate 01 (50/60 Hz) In accordance with cycle time (Tc) and input response time (Tr): In accordance with cycle time (Tc) and input response time (Tr): In accordance with cycle time (Tc) and input response time (Tr): In accordance with cycle time (Tc) and input response time (Tr): In accordance with cycle time (Tc) and input response time (Tr): In accordance with cycle time (Tc) and input response time (Tr): In accordance with cycle time (Tc) and input response time (Tr): In accordance with cycle time (Tc) and input response time (Tr): In accordance with cycle time (Tc) and input response time (Tr): In accordance with cycle time (Tc) and input response time (Tr): In accordance with cycle time (Tc) and input response time (Tr): In accordance with cycle time (Tc) and input response time (Tr): In accordance with cycle time (Tc) and input response time (Tr): In accordance with cycle time (Tc) and input response time (Tr): In accordance with cycle time (Tc) and input response time (Tr): In accordance with cycle time (Tc) and input response time (Tr): In accordance with cycle time (Tc) and input response time (Tr): In accordance with cycle time (Tc) and input response time (Tr): In accordance with cycle time (Tc) and input response time (Tr): In accordance with state of the min. up to 255 ms 50 ms min. up to 25 ms 510 ms min.					
So ms min. up to 255 ms State 0 →1 (50/60 Hz) State 0 →1 (50/60 Hz) State 0 →1 (50/60 Hz)					
State 0 — 1 (50/60 Hz) State 0 — 1 (50/60 Hz) In accordance with cycle time (Tc) and input response time (Tr) : In accordance with cycle time (Tc) and input response time (Tr) : In accordance with cycle time (Tc) and input response time (Tr) : In accordance with cycle time (Tc) and input response time (Tr) : In (2 x Tc) + Tr) (2 x Tc) +	Response time with function blocks programming			· · ·	
In accordance with cycle time (Tc) and input response time (Tr): 1/((2 x Tc) + Tr)		·		· ·	
1/((2 x Tc) + Tr) 1/((2 x Tc)	Maximum counting frequency	, ,	ime (Tr) :	` '	
Input type Isolation between power supply and inputs None None None	mammam counting noquency	, , , , , , , , , , , , , , , , , , , ,	(, .		
Isolation between power supply and inputs None None None	Sensor type	Contact or 3-wire PNP		Contact or 3-wire PNP	
Isolation between inputs None Protection against polarity inversions Yes Status indicator On LCD screen for CD and XD On LCD screen for CD and XD Characteristics of relay outputs common to the entire range Max. breaking voltage 530 V DC 24250 V AC Breaking current CB-CD-XD10-XB10-XR806-XR10 : 8 A XD26-XB26 : 8 x 8 A relays, 2 x 5 A relays XE10 : 4 x 5 A relays XE11 : 4 x 5 A relays XE11 : 4 x 5 A relays RBT (Removable Terminal Blocks) versions : verify the maximum current according to the type of connection used Utilization category DC-12 : 24 V, 1.5 A Utilization category AC-13 : 24 V (LIR = 10 ms), 0.6 A Utilization category AC-15 : 230 V, 0.9 A Max. Output Common Current 12 A for O8, O9, OA Minimum switching capacity 10 mA (at minimum voltage of 12 V) Minimum load 12 V, 10 mA Maximum rate Of Iolat : 10 Hz At operating current : 0.1 Hz Mechanical life 10,000,000 (operations) Make 10 ms	1 - 11				
Protection against polarity inversions Status indicator On LCD screen for CD and XD On LCD screen for CD and XD Characteristics of relay outputs common to the entire range Max. breaking voltage 5 -30 v DC 24 -250 v AC Breaking current CB-CD-XD10-XB10-XR06-XR10: 8 A XD26-XB26: 8 x 8 A relays, 2 x 5 A relays XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays RBT (Removable Terminal Blocks) versions: verify the maximum current according to the type of connection used Electrical durability for 500 000 operating cycles Utilization category DC-12: 24 V, 1.5 A Utilization category DC-13: 24 V (L/R = 10 ms), 0.6 A Utilization category AC-15: 230 V, 1.5 A Utilization category AC-15: 230 V, 0.9 A Max. Output Common Current 12 A for O8, O9, OA Minimum switching capacity 10 mA (at minimum voltage of 12 V) Minimum load 12 V, 10 mA Maximum rate Off load: 10 Hz At operating current: 0.1 Hz Mechanical life 10,000,000 (operations) Voltage for withstanding shocks In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV Off-cycle response time Make 10 ms	1 112 1				
Status indicator On LCD screen for CD and XD Characteristics of relay outputs common to the entire range Max. breaking voltage 530 V DC 24250 V AC Breaking current CB-CD-X010-XB10-XR06-XR10 : 8 A XD26-XB26 : 8 x 8 A relays, 2 x 5 A relays XR10 : 4 x 5 A relays XR14 : 4 x 8 A relays, 2 x 5 A relays RBT (Removable Terminal Blocks) versions : verify the maximum current according to the type of connection used Utilization category DC-12 : 24 V, 1.5 A Utilization category DC-13 : 24 V (L/R = 10 ms), 0.6 A Utilization category AC-15 : 230 V, 0.9 A Max. Output Common Current 12 A for O8, O9, OA Minimum switching capacity 10 mA (at minimum voltage of 12 V) Minimum load 12 V, 10 mA Maximum rate Off load : 10 Hz At operating current : 0.1 Hz Mechanical life Voltage for withstanding shocks In accordance with IEC/EN 60947-1 and IEC/EN 60664-1 : 4 kV Off-cycle response time Make 10 ms					
Max. breaking voltage 5 → 30 V DC 24 → 250 V AC Breaking current CB-CD-X10-XB10-XR06-XR10: 8 A XD26-XB26: 8 x 8 A relays, 2 x 5 A relays XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays RBT (Removable Terminal Blocks) versions: verify the maximum current according to the type of connection used Utilization category DC-12: 24 V, 1.5 A Utilization category DC-13: 24 V (L/R = 10 ms), 0.6 A Utilization category AC-12: 230 V, 1.5 A Utilization category AC-15: 230 V, 0.9 A Max. Output Common Current 12 A for O8, O9, OA Minimum switching capacity 10 mA (at minimum voltage of 12 V) Minimum load 12 V, 10 mA Maximum rate Off load: 10 Hz At operating current: 0.1 Hz Mechanical life 10,000,000 (operations) Voltage for withstanding shocks In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV Off-cycle response time Make 10 ms					
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Breaking current CB-CD-XD10-XB10-XR06-XR10: 8 A XD26-XB26: 8 x 8 A relays, 2 x 5 A relays XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays RBT (Removable Terminal Blocks) versions: verify the maximum current according to the type of connection used Electrical durability for 500 000 operating cycles Utilization category DC-12: 24 V, 1.5 A Utilization category DC-13: 24 V (L/R = 10 ms), 0.6 A Utilization category AC-12: 230 V, 1.5 A Utilization category AC-15: 230 V, 0.9 A Max. Output Common Current 12 A for O8, O9, OA Minimum switching capacity 10 mA (at minimum voltage of 12 V) Minimum load 12 V, 10 mA Maximum rate Off load: 10 Hz At operating current: 0.1 Hz Mechanical life 10,000,000 (operations) Voltage for withstanding shocks In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV Off-cycle response time Make 10 ms	2 1				
XD26-XB26 : 8 x 8 A relays, 2 x 5 A relays XE10 : 4 x 5 A relays XE10 : 4 x 5 A relays XE110 : 4 x 5 A relays XE120 : 4 x 5 A relays XE14 : 4 x 8 A relays, 2 x 5 A relays RBT (Removable Terminal Blocks) versions : verify the maximum current according to the type of connection used Electrical durability for 500 000 operating cycles Utilization category DC-12 : 24 V, 1.5 A Utilization category DC-13 : 24 V (L/R = 10 ms), 0.6 A Utilization category AC-12 : 230 V, 1.5 A Utilization category AC-15 : 230 V, 0.9 A Max. Output Common Current 12 A for O8, O9, OA Minimum switching capacity 10 mA (at minimum voltage of 12 V) Minimum load Maximum rate Off load : 10 Hz At operating current : 0.1 Hz Mechanical life 10,000,000 (operations) Voltage for withstanding shocks In accordance with IEC/EN 60947-1 and IEC/EN 60664-1 : 4 kV Off-cycle response time Make 10 ms	3 1 13				
XE10 : 4 x 5 A relays XR14 : 4 x 8 A relays, 2 x 5 A relays RBT (Removable Terminal Blocks) versions : verify the maximum current according to the type of connection used Electrical durability for 500 000 operating cycles Utilization category DC-12 : 24 V, 1.5 A Utilization category DC-13 : 24 V (L/R = 10 ms), 0.6 A Utilization category AC-12 : 230 V, 1.5 A Utilization category AC-15 : 230 V, 0.9 A Max. Output Common Current 12 A for O8, O9, OA Minimum switching capacity 10 mA (at minimum voltage of 12 V) Minimum load 12 V, 10 mA Maximum rate Off load : 10 Hz At operating current : 0.1 Hz Mechanical life 10,000,000 (operations) Voltage for withstanding shocks In accordance with IEC/EN 60947-1 and IEC/EN 60664-1 : 4 kV Off-cycle response time Make 10 ms	Breaking current				
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Utilization category DC-13 : 24 V (L/R = 10 ms), 0.6 A Utilization category AC-12 : 230 V, 1.5 A Utilization category AC-15 : 230 V, 0.9 A Max. Output Common Current 12 A for O8, O9, OA Minimum switching capacity 10 mA (at minimum voltage of 12 V) Minimum load 12 V, 10 mA Maximum rate Off load : 10 Hz At operating current : 0.1 Hz Mechanical life 10,000,000 (operations) Voltage for withstanding shocks In accordance with IEC/EN 60947-1 and IEC/EN 60664-1 : 4 kV Off-cycle response time Make 10 ms					
Utilization category AC-12: 230 V, 1.5 A Utilization category AC-15: 230 V, 0.9 A Max. Output Common Current 12 A for O8, O9, OA Minimum switching capacity 10 mA (at minimum voltage of 12 V) Minimum load 12 V, 10 mA Maximum rate Off load: 10 Hz At operating current: 0.1 Hz Mechanical life 10,000,000 (operations) Voltage for withstanding shocks In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV Off-cycle response time Make 10 ms	Electrical durability for 500 000 operating cycles				
Utilization category AC-15: 230 V, 0.9 A Max. Output Common Current 12 A for O8, O9, OA Minimum switching capacity 10 mA (at minimum voltage of 12 V) Minimum load 12 V, 10 mA Maximum rate Off load: 10 Hz At operating current: 0.1 Hz Mechanical life 10,000,000 (operations) Voltage for withstanding shocks In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV Off-cycle response time Make 10 ms					
Max. Output Common Current 12 A for O8, O9, OA Minimum switching capacity 10 mA (at minimum voltage of 12 V) Minimum load 12 V, 10 mA Maximum rate Off load : 10 Hz					
Minimum load 12 V, 10 mA Maximum rate Off load: 10 Hz	Max. Output Common Current	* *			
Maximum rate Off load: 10 Hz At operating current: 0.1 Hz Mechanical life 10,000,000 (operations) Voltage for withstanding shocks In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV Off-cycle response time Make 10 ms		· · · · · · · · · · · · · · · · · · ·			
At operating current : 0.1 Hz Mechanical life 10,000,000 (operations) Voltage for withstanding shocks In accordance with IEC/EN 60947-1 and IEC/EN 60664-1 : 4 kV Off-cycle response time Make 10 ms					
Mechanical life 10,000,000 (operations) Voltage for withstanding shocks In accordance with IEC/EN 60947-1 and IEC/EN 60664-1 : 4 kV Off-cycle response time Make 10 ms	Maximum rate				
Voltage for withstanding shocks In accordance with IEC/EN 60947-1 and IEC/EN 60664-1 : 4 kV Off-cycle response time Make 10 ms	Mechanical life				
Off-cycle response time Make 10 ms					
Release 5 ms					
		Release 5 ms			

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Built-in protections	Against short-circuits : None		
	Against overvoltages and overloads : None		
Status indicator	On LCD screen for CD and XD		
Characteristics of product with DC power sup	pplied		
Supply			
Nominal voltage	12 V DC	24 V DC	
Operating limits	-13 % / +20 %	-20 % / +25 %	
	or 10.4 V DC→14.4 V DC (including ripple)	e) or 19.2 V DC→30 V DC (including ripple)	
Immunity from micro power cuts	≤ 1 ms (repetition 20 times)	≤ 1 ms (repetition 20 times)	
Max. absorbed power	CB12 with solid state outputs : 1.5 W CD12 : 1.5 W CD12 : 1.5 W XD10-XB10 with solid state outputs : 4 W XD26-XB26 with solid state outputs : 5 W		y outputs : 4 W
	CD20 : 2.5 W XD26-XB26 : 3 W XD26-XB26 with extension : 5 W XD26 with solid state outputs : 2.5 W	CB20-CD20 with relay outputs : 6 W XD26 with relay outputs : 6 W XD10-XB10 with extension : 8 W XD26-XB26 with extension : 10 W	
Protection against polarity inversions	Yes	Yes	3101011.1011
Digital inputs (I1 to IA and IH to IY)	12 V DC (-13 % / +20 %)		24 \ DC (20 % / +25 %)
nput voltage	, ,		24 V DC (-20 % / +25 %) 2.6 mA @ 19.2 V DC
nput current	3.9 mA @ 10.44 V DC 4.4 mA @ 12.0 V DC		3.2 mA @ 24 V DC
	5.3 mA @ 14.4 VDC		4.0 mA @ 30.0 VDC
nput impedance	2.7 kΩ		7.4 kΩ
ogic 1 voltage threshold	≥ 7 V DC		≥ 15 V DC
Making current at logic state 1	≥ 2 mA		≥ 2.2 mA
ogic 0 voltage threshold	≤ 3 V DC		≤5 V DC
Release current at logic state 0	< 0.9 mA		< 0.75 mA
Response time	1 →2 cycle times + 6 ms		1 →2 cycle times + 6 ms
Maximum counting frequency	Inputs I1 & I2 : FBD (up to 6 k Hz) & Ladder	(1 k Hz)	Inputs I1 & I2 : FBD (up to 6 k Hz) & Ladder (1 k Hz)
	Inputs I3 to IA & IH to IY: In accordance with input response time (Tr): 1/((2 x Tc) + Tr)		Inputs I3 to IA & IH to IY: In accordance with cycle time (Tc) and input response time (Tr): $1/((2 \times Tc) + Tr)$
Sensor type	Contact or 3-wire PNP		Contact or 3-wire PNP
Conforming to IEC/EN 61131-2	Type 1		Type 1
nput type	Resistive		Resistive
solation between power supply and inputs	None		None None
solation between inputs	None		Yes
Protection against polarity inversions	Yes		
	On LCD screen for CD and XD		On LCD screen for CD and XD
Status indicator Analogue or digital inputs (IB to IG) CB12-CD12-XD10-XB10 CB20-CD20-XB26-XD26	On LCD screen for CD and XD 4 inputs IB →IE 6 inputs IB →IG		
Analogue or digital inputs (IB to IG) CB12-CD12-XD10-XB10	4 inputs IB →IE		On LCD screen for CD and XD 4 inputs IB →IE
Analogue or digital inputs (IB to IG) DB12-CD12-XD10-XB10 DB20-CD20-XB26-XD26 Dputs used as analogue inputsonly in FBD Measurement range	4 inputs IB →IE 6 inputs IB →IG (0 →10 V) or (0 →V power supply)		On LCD screen for CD and XD 4 inputs IB →IE 6 inputs IB →IG (0 →10 V) or (0 →V power supply)
Analogue or digital inputs (IB to IG) DB12-CD12-XD10-XB10 DB20-CD20-XB26-XD26 Dputs used as analogue inputsonly in FBD Measurement range nput impedance	4 inputs IB \rightarrow IE 6 inputs IB \rightarrow IG (0 \rightarrow 10 V) or (0 \rightarrow V power supply) 14 k Ω		On LCD screen for CD and XD
Analogue or digital inputs (IB to IG) DB12-CD12-XD10-XB10 DB20-CD20-XB26-XD26 Dputs used as analogue inputsonly in FBD Measurement range Dput impedance Dput voltage	4 inputs IB \rightarrow IE 6 inputs IB \rightarrow IG (0 \rightarrow 10 V) or (0 \rightarrow V power supply) 14 k Ω 14.4 V DC max.		On LCD screen for CD and XD $ \begin{tabular}{l} 4 inputs IB \rightarrowIE \\ 6 inputs IB \rightarrowIG \\ \end{tabular} \begin{tabular}{l} (0 \rightarrow10 V) or (0 \rightarrowV power supply) \\ 12 k\Omega \\ 30 V DC max. \\ \end{tabular} \begin{tabular}{l} 30 V DC max. \\ \end{tabular} \begin{tabular}{l} 4 inputs IB \rightarrowIE \\ \end{tabular} \begin{tabular}{l} 4 inputs IB \rightarrowIG \\ \end{tabular} \begin{tabular}{l} 4 inputs IB $
chalogue or digital inputs (IB to IG) CB12-CD12-XD10-XB10 CB20-CD20-XB26-XD26 CD20-XB26-XD26 CD20-XB26-XB26 CD20-XB26-XB26 CD20-XB26-XB26 CD20-XB26-XB26 CD20-XB26-XB26 CD20-XB26-XB26 CD20-XB26 CD2	4 inputs IB \rightarrow IE 6 inputs IB \rightarrow IG (0 \rightarrow 10 V) or (0 \rightarrow V power supply) 14 k Ω 14.4 V DC max. 14 mV		On LCD screen for CD and XD 4 inputs IB →IE 6 inputs IB →IG (0 →10 V) or (0 →V power supply) 12 kΩ 30 V DC max. 29 mV
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Analogue or digital inputs (IB to IG) DB12-CD12-XD10-XB10 DB20-CD20-XB26-XD26 Inputs used as analogue inputsonly in FBD Measurement range Input impedance Input voltage Value of LSB Input type Resolution Conversion time Accuracy at 25 °C Accuracy at 25 °C Repeat accuracy at 55 °C Solation between analogue channel and power sup Dable length Protection against polarity inversions Potentiometer control Inputs used as digital inputs Input current Input impedance In	4 inputs IB →IE 6 inputs IB →IG (0 →10 V) or (0 →V power supply) 14 kΩ 14.4 V DC max. 14 mV Common mode 10 bit at max. input voltage Controller cycle time \pm 5 % \pm 6.2 % \pm 2 % Ply None 10 m maximum, with shielded cable (sensor Yes) 2.2 kΩ/0.5 W (recommended) 10 kΩ max. 12 V DC (-13 % / +20 %) 0.7 mA @ 10.44 VDC 0.9 mA @ 12.0 VDC 1.0 mA @ 14.4VDC 14 kΩ ≥ 7 V DC ≥ 0.5 mA ≤ 3 V DC ≤ 0.2 mA 1 →2 cycle times In accordance with cycle time (Tc) and input 1/ ((2 x Tc) + Tr) Contact or 3-wire PNP Type 1 Resistive None		On LCD screen for CD and XD 4 inputs IB →IE 6 inputs IB →IG (0 →10 V) or (0 →V power supply) 12 kΩ 30 V DC max. 29 mV Common mode 10 bit at max. input voltage Controller cycle time ± 5 % ± 6.2 % ± 2 % None 10 m maximum, with shielded cable (sensor not isolated) Yes 2.2 kΩ/0.5 W (recommended) 10 kΩ max. 24 V DC (-20 % / +25 %) 1.6 mA @ 19.2 VDC 2.0 mA @ 24.0 V DC 2.5 mA @ 30.0 VDC 12 kΩ ≥ 15 VDC ≥ 1.2 mA ≤ 5 V DC ≤ 0.5 mA 1 →2 cycle times In accordance with cycle time (Tc) and input response time (Tr) 1/ ((2 x Tc) + Tr) Contact or 3-wire PNP Type 1 Resistive None

02/11/2015		www.crouzet.com
Max. breaking voltage	5 →30 V DC 24 →250 V AC	
Max. Output Common Current	12A (10A UL) for O8, O9, OA	
Breaking current	CB-CD-XD10-XB10-XR06-XR10 : 8 A	
Dicaking current	XD26-XB26 : 8 x 8 A relays, 2 x 5 A relays	
	XE10:4 x 5 A relays	
	XR14:4 x 8 A relays, 2 x 5 A relays	
Electrical durability for 500 000 operating cycles	Utilization category DC-12 : 24 V, 1.5 A	
	Utilization category DC-13 : 24 V (L/R = 10 ms), 0.6 A	
	Utilization category AC-12 : 230 V, 1.5 A Utilization category AC-15 : 230 V, 0.9 A	
Minimum switching capacity	10 mA (at minimum voltage of 12 V)	
Minimum load	12 V, 10 mA	
Maximum rate	Off load: 10 Hz	
	At operating current : 0.1 Hz	
Mechanical life	10,000,000 (operations)	
Voltage for withstanding shocks	In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV	
Off-cycle response time	Make 10 ms	
	Release 5 ms	
Built-in protections	Against short-circuits : None	
Obel a Sallanda	Against overvoltages and overloads : None	
Status indicator	On LCD screen for CD and XD	
Digital / PWM solid state output		
PWM solid state output*	CB12: O4	CD12-XD10-XB10 : O4

PWM solid state output*	CB12: O4	CD12-XD10-XB10 : O4
1 WW Solid State Output	XD26: O4 →O7	CD20-XD26-XB26 : O4 →O7
* Only available with "FBD" programming language	* Only available with "FBD" programming language	
Breaking voltage	10.4 →30 V DC	19.2 →30 V DC
Nominal voltage	12-24 VDC	24 V DC
Nominal current	0.5 A	0.5 A
Max. breaking current	0,625 A	0,625 A
Voltage drop	≤ 2 V for I = 0.5 A (at state 1)	≤ 2 V for I = 0.5 A (at state 1)
Response time	Make ≤ 1 ms Release ≤ 1 ms	Make ≤ 1 ms Release ≤ 1 ms
Operating frequency	1 Maximum on inductive load	1 Maximum on inductive load
Built-in protections	Against overloads and short-circuits: Yes Against overvoltages (*): Yes Against inversions of power supply: Yes (*) In the absence of a volt-free contact between the logic controller output and the load	Against overloads and short-circuits: Yes Against overvoltages (*): Yes Against inversions of power supply: Yes (*) In the absence of a volt-free contact between the logic controller output and the load
Min. load	1 mA	1 mA
Maximum incandescent load	0,2 A / 12 V DC 0,1 A / 24 V DC	0,1 A / 24 V DC
Galvanic isolation	No	No
PWM frequency	14.11 Hz 56.45 Hz 112.90 Hz 225.80 Hz 451.59 Hz 1806.37 Hz	14.11 Hz 56.45 Hz 112.90 Hz 225.80 Hz 451.59 Hz 1806.37 Hz
PWM cyclic ratio	0 →100 % (256 steps for CD, XD and 1024 steps for XA)	$0 \rightarrow 100$ % (256 steps for CD, XD and 1024 steps for XA)
Max. Breaking current PWM	50 mA	50 mA
Max. cable length PWM	20 m	20 m
PWM accuracy at 120 Hz	< 5 % (20 % →80 %) load at 10 mA	< 5 % (20 % →80 %) load at 10 mA
PWM accuracy at 500 Hz	< 10 % (20 % →80 %) load at 10 mA	< 10 % (20 % →80 %) load at 10 mA
Status indicator	On LCD screen for XD	On LCD screen for CD and XD

Accessories

Туре	Description	Code
M3 Soft	Multilingual programming software containing specific library functions (CD-ROM)	88970111
PA	EEPROM memory cartridge	88970108
PA	3 m serial link cable : PC →Millenium 3	88970102
PA	USB cable 3 m : PC →Millenium 3	88970109
PA	Millenium 3 interface →Bluetooth® (class A 10 m)	88970104

Comments

* to be marketed 1st quarter 2006

Dimensions (mm)

CB20 Smart

