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# Modem communication plug and play solutions GSM Part number 88970119



- For remote control of your application
   Automatic notification of alarms via SMS (GSM Modem) / email or on a PC with M3 ALARM software.
- Millenium 3 program can be downloaded, modified and sent
- Input and output states, as well as all program values, can be polled and controlled remotely
- 2 types of pre-configured ready-to-use modem :
- STN modem for wired transmission networks
- GSM modem for wireless communication

t nu		

Type	Description	Supply
<b>88970119</b> GSM	GSM modem850/900/1800/1900 M Hz	12-24 V DC

#### **Specifications**

General environment characteristics for CB, CD, XD, XB, XR and XE product types
---------------------------------------------------------------------------------

Certifications	CE, UL, CSA, GL
Conformity to standards (with the low voltage directive	IEC/EN 61131-2 (Open equipment)
and EMC directive)	IEC/EN 61131-2 (Zone B)
	IEC/EN 61000-6-2,
	IEC/EN 61000-6-3 (*)
	IEC/EN 61000-6-4
Ex Miles	(*) 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	None
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
Max operating Autouc	Transport : 3.048 m
Mechanical resistance	Immunity to vibrations IEC/EN 60068-2-6, Fc test
	Immunity to shock IEC/EN 60068-2-27, Fa test
Resistance to electrostatic discharge	Immunity to ESD IEC/EN 61000-4-2, level 3
Resistance to HF interference	Immunity to radiated electrostatic fields
	IEG/EN 61000-4-3,
	Immunity to fast transients (burst immunity)
	IEC/EN 61000-4-4, level 3 Immunity to shock waves
	Hinding to stock waves
	Radio frequency in common mode
	IEC/EN 61000-4-6, level 3
	Voltage dips and breaks (AC)
	IEG/EN 61000-4-11
	Immunity to damped oscillatory waves
Overall and	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 metallic cabinet)
Operating temperature	-20 -+55 °C (+40 °C in a non-ventilated enclosure) in accordance with IEC/EN 60068-2-1 and IEC/EN 60068-2-2
Storage temperature	-20 →+30 °C (+40 °C in a non-verticated enclosure) 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 profile, 35 x 7.5 mm and 35 mm x 15 or panel (2 x 4 mm Ø)
Screw terminals connection capacity	Flexible wire with ferrule =
Screw terminals connection capacity	1 conductor : 0.25 to 2.5 mm <sup>2</sup> (AWG 24AWG 14)
	2 conductors 0.25 to 0.75 mm² (AWG 24AWG 14)
	2 conductors 0.25 to 0.75 mm <sup>-</sup> (AWG 24AWG 18) Semi-rigid wire =
	1 conductor : 0.2 to 2.5 mm <sup>2</sup> (AWG 25AWG 14)
	Rigid wire =
	1 conductor : 0.2 to 2.5 mm <sup>2</sup> (AWG 25AWG 14)
	2 conductors 0.2 to 1.5 mm <sup>2</sup> (AWG 25AWG 16)
	Tightening torque =
	0.5 N.m (4.5 lb-in) (tighten using screwdriver diam. 3.5 mm)

#### **Characteristics of the communication Modem system**

General characteristics	88970117	88970118		88970119	
Certifications	CE, UL, CSA	CE, UL, CSA		CE, R&TTE, UL, CS	A, FCC, IC
Supply					
Nominal voltage (V)	12 →24 V DC		12 →24 V DC		12 →24 V DC

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Operating limits	-13 % / +20 % or 10 →28,8 V DC	-13 % / +5 % or 10 →30 V DC	-54 % / +33 % or 5,5 →32 V DC
Ripple	5 % max.	-	
Nominal current under 12 V DC	30 mA	140 mA	165 mA
Nominal current under 24 V DC	30 mA	70 mA	87 mA
Peak current on energisation	550 mA	9600 mA	2100 mA at 5.5 V
· ·			
Max. absorbed power	1,1 W	1,7 W	2,1 W
Immunity from micro power cuts	1 ms, repetition 20 times	-	
Protection against polarity inversions	Yes	No	No
Fuse protection	1 A fuse	-	Supplied with fuse 2.5 A
Temperature Use (°C)	-20 →+55 °C	-30 →+70 °C	-20 →+55 °C
Storage temperature (°C)	-40 →+70 °C	-40 →+85 °C	-25 →+70 °C
		40 7.00 0	20 710 0
Characteristics of the "COM-M3" link with the controller			
Type of connector	Specific Millenium		
Type of link	Specific Millenium communication protocol		
Compatibility	Only with Millenium controllers version ≥ V2.1		
Isolation of "Com-M3" connector from the "Com-M"	\" \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
connector	Via optocoupler AC 1780 V		
Isolation of "Com-M3" connector from the ± supply			
terminals	Via optocoupler AC 1780 V		
Characteristics of "Com-M" link with the Modem			
	0 10 100		
Type of connector	Specific Millenium		
Type of link with Modem connector cable	RS 232 serial (supplied with the communication	on interface)	
Compatibility	Only with Millenium controllers version ≥ V2.1		
Analogue RTC modem compatibility	AT commands		
GSM modem compatibility	AT commands		
Isolation of "Com-M" connector from the Modem	Via link cable to Modem (supplied)		
	via inin cable to woutern (supplied)		
Isolation of "Com-M" connector from the ± supply	Via link cable to Modem (supplied)		
terminals	11 /		
Data characteristics			
Data saved by the interface	Up to 28 messages		
	1 to 10 recipients (telephone numbers and/or	e-mail addresses) per messag	ge
	Time-stamping of messages to be sent (date a	and time)	
	Saving of values on triggering of the message	activation condition (digital ar	nd numerical values)
Backup of data to be sent	Flash memory		
Comments	•		
88970117 : supplied with connecting cable between			
M3MOD and Modem (Millenium 3 connector to sub DB9)			
88970118 : supplied with configuration CD-ROM and			
telephone cable			
88970119: supplied with an antenna, a power cable, a	na		
DIN Rail mounting kit			
Processing characteristics of CB, CD, XD & XB product			
types			
LCD display	CD, XD: Display with 4 lines of 18 characters		
Programming method	Function blocks / SCF (Grafcet) or Ladder		
Program size	For CB, CD:		
	4 Ko : 64 macros max.		
	256 blocks max. per macro		
	180 typical blocks		
	For XB, XD :		
	8 Ko : 64 macro max.		
	256 blocks max. per macro		
	350 typical blocks		
	Or for CB, CD, XB, XD : 120 lines in Ladder		
Program momory	Flash EEPROM		
Program memory			
Removable memory	EEPROM		
Data memory	368 bit/200 words		
Back-up time in the event of power failure	Program and settings in the controller: 10 year	ars	
	Program and settings in the plug-in memory :	10 years	
	Data memory : 10 years		
Cycle time	Function blocks : 6 →90 ms (typically 20 ms)		
	Ladder: typically 20 ms		
Response time	Input acquisition time : 1 to 2 cycle times		
Clock data retention	10 years (lithium battery) at 25 °C		
Clock drift	Drift < 12 min/year (at 25 °C)		
Clock drift	6 s/month (at 25 °C with user-definable corre	ction of drift\	
Timer block accuracy	•	otion or unit)	
Timer block accuracy	1 % ± 2 cycle times		
Start up time on power up	< 1,2 s		
Characteristics of products with AC power supp	plied		
Supply	24 V AC	100 →240 V AC	
Оцрріу			
All and and a final and	(889704)	(889703)	
Nominal voltage	24 V AC	100 →240 V AC	
Operating limits	-15 % / +20 %	-15 % / +10 %	
	or 20.4 VAC→28.8 VAC	or 85 VAC→264	VAC
Supply frequency range	50/60 Hz (+4 % / -6 %)	F0/00 LL / 4 2/ /	6 0/ ) or 47
	or 47→53 Hz/57 < 63 Hz	50/60 Hz (+4 % /	-6 %) or 47 →53 Hz/57 < 63 Hz
Immunity from micro power cuts	10 ms (repetition 20 times)	10 ms (repetition	20 times)
	` '		•
Max. absorbed power	CB12-CD12-XD10-XB10 : 4 VA	CB12-CD12-XD1	
	CB20-CD20 : 6 VA	CB20-CD20 : 11	
	XD10-XB10 with extension : 7,5 VA		extension : 12 VA
	XD26-XB26 : 7.5 VA	XD26-XB26 : 12	VM

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March   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997   1997	J2/11/2015				www.ci	ouzei.com	
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Microsophic   19870.04   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.	Isolation voltage	1780 V AC		1780 V A	AC		
Microsophic   19870.04   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.05   19870.	Inpute	24 \/ AC			100 - 240 \/ AC		
Page 1   Page 2   Page 2   Page 3   P	iriputs						
Annabe 2013 A Final State		`			,		
S. J. M. Ag. 24, 50   M. C.	Input voltage	24 V AC (-15 % / +20 %)			100 →240 V AC (-15 % / +10 %)		
Continue of the Continue of	Input current	4,4 mA @ 20,4 V AC			0.04 4 @ 05 \/ 40		
A S A M		5,2 mA @ 24,0 V AC					
Part   Content   Content		6.3 mA @ 28.8 V AC			0,75 mA @ 264 V AC		
Sept   1	Input impedance				350 kO		
Maintagname Independents							
Section   Sect							
Monitor   March   Ma	Making current at logic state 1	>2 mA			>0.17 mA		
Street   S	Logic 0 voltage threshold	≤5 V AC			≤ 20 V AC (≤ 28 V AC : XE10, XR06, XR10, XR14)		
Street   S	Release current at logic state 0	<0.5 mA			<0.5 mA		
Samp	Ü						
Configurable in increments of 10 ms   Configurable in increments of	riosponos tinis war Brabbert programming						
50 mc min. up to 255 mc   556 mc   55	Decrease the with function blocks are assumed to	,			,		
State 0 - 1 (\$000 Hz)	Response time with function blocks programming	•					
In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with cycle time (Tc) and input response time (Tc)   In accordance with ECPs (Notice time)   In accordance with ECPs (Notice		· ·			· · · · · · · · · · · · · · · · · · ·		
Ministry   Ministry		· ·					
Select / Pipe   Contact or 3-wise PMP   Contact or 3-wise PMP   Recision before power supply and inouts   Recision before power supply and inouts   None	Maximum counting frequency		response tim	ne (Tr) :		se time (Tr):	
Resistance between required simply and imposits   Nome		1/ ( (2 x Tc) + Tr)			1/ ( (2 x Tc) + Tr)		
Persistance	Sensor type	Contact or 3-wire PNP			Contact or 3-wire PNP		
More   None		Resistive			Resistive		
None	1 2						
Ves							
Characteristics of rollay outputs common to the entire range							
Characteristics of relay outputs common to the entire range   Ana. troubly youtput   Ana.	Protection against polarity inversions	Yes			Yes		
Characteristics of relay outputs common to the entire range   Ana. troubly youtput   Ana.	Status indicator	On LCD screen for CD and XD			On LCD screen for CD and XD		
Section   Sect							
24 - 250 V AC							
CR-CD-XEID-XTID-XTID-XTROS-XRED - X R relays   X S A relays   X S A relays   X S D x Relays   X S A relays   X S D x Relays   X S A relays   X S D x Relays	Max. breaking voltage						
ND69-NB261-8 x 8 A relays x 5 A relays		24 →250 V AC					
NDG-S/REG- 8 x 8 A relays	Breaking current	CB-CD-XB10-XD10-XR06-XR10:8 A					
XEID 4 x & A Fellays   X 5 A Fellays		XD26-XB26:8 x 8 A relays, 2 x 5 A relays					
SRIB 1 4 x 8 A relays, 2 x 5 A relays   Bedinned durability for 500 000 operating cycles							
Usage category DC-12: 24 V (IR = 10 ms), 0.6 A Usage category DC-12: 24 V (IR = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-12: 230		•					
Usage category DC-13: 24 V (UR = 10 ms), 0.6 A   Usage category AC-15: 230 V, 0.9 A	Electrical durability for E00 000 energting evolus						
Usage category AC-15::380 V, I.5 A   Usage cat	Electrical durability for 500 000 operating cycles		0.6.4				
Usago category AC-15: 230 V, 0.9 A			0.6 A				
Max Object Common Current    12A for O8,09,0A							
Minimum workling capacity							
Micromum rate	Max. Output Common Current	12A for O8,O9,OA					
Machinium rate	Minimum switching capacity	10 mA (at minimum voltage of 12 V)					
Machinium rate	Minimum load	12 V. 10 mA					
Mechanical life							
Montage   Mont	Maximum rate						
Value   Control   Contro	Marchael and 1966	· •					
Make 10 ms   Release 5 ms   Against overvoltages and overloads : None   Against overvoltages   Against over			· · · · · · · · · · · · · · · · · · ·				
Release 5 ms	Voltage for withstanding shocks	In accordance with IEC/EN 60947-1 and IEC/	EN 60664-1:	4 kV			
Against short-circuits   None   Against short-circuits   None   Against short-circuits   None   Against short-circuits   None   Against and overloads   None	Off-cycle response time	Make 10 ms					
Against overvoltages and overloads : None		Release 5 ms					
Status indicator	Built-in protections	Against short-circuits : None					
Status indicator		Against overvoltages and overloads : None					
Characteristics of product with DC power supplied	Status indicator						
12 V DC							
Nominal voltage	Characteristics of product with DC power supplie	d					
Nominal voltage	Supply	12 V DC	24 V DC				
Nominal voltage				et 88970 2	0)		
Comparing limits	Nominal voltage	,		. ,			
mmunity from micro power cuts	·			= 0/			
Immunity from micro power cuts	Operating limits				OC (including ripple)		
CB12 with solid state outputs : 1.5 W CD12 : 1.5 W CD2 : 1.5 W CD2 : 1.5 W CD2 : 2.5 W					, , , ,		
CB12 with solid state outputs: 1.5 W   CD12: 1.5 W   CD20: 2.5 W   CD20-CD20 with relay outputs: 6 W   CD20-CD20-CD20 with relay outputs: 6 W   CD20-CD20-CD20-CD20 with relay outputs: 6 W   CD20-CD20-CD20-CD20 with relay outputs: 6 W   CD20-CD20-CD20-CD20 with relay outputs: 6 W   CD20-CD20-CD20-CD20-CD20-CD20-CD20-CD20-	Immunity from micro power cuts	≤ 1 ms (repetition 20 times)	≤ 1 ms (rep	etition 20	times)		
CD12 : 1.5 W   CD20 : 2.5 W   CD	Max. absorbed power	CR10 with polid state outputs + 1 F W	CB12-CD12	2-CD20 wi	th solid state outputs - XD10-XB10 with solid state out	puts: 3 W	
CD20 : 2.5 W   XD26-XB26 with solid state outputs : 5 W   XD26-XB26 with extension : 5 W   XD26-XB26 with extension : 5 W   XD26 with relay outputs : 6 W   XD10-XB10 with extension : 8 W   XD26-XB26 with extension : 10 W   Yes			XD10-XB10	0 with rela	y outputs : 4 W		
XD26-XB26 : 3 W   XD26-XB26 with extension : 5 W   XD26 with relay outputs : 6 W   XD26 with relay outputs : 5 W   XD26 with relay outputs : 5 W   XD26 with relay outputs : 6 W   XD26 with relay outputs : 6 W   XD26-XB26 with extension : 10			XD26-XB26	6 with solid	d state outputs : 5 W		
XD26-XB26 with extension : 5 W   XD26 with solid state outputs : 2.5 W   XD10-XB10 with extension : 10 W   XD26-XB26 with extension : 10 W			CB20-CD20	0 with rela	y outputs : 6 W		
XD2-AB26 with extension : 5 W   XD10-XB10 with extension : 8 W   XD26-XB26 with extension : 10 W			XD26 with	relay outp	uts:6W		
No.26-XB26 with extension : 10 W							
Digital inputs (I1 to IA and IH to IY)         12 V DC (889705 & 88970814 & 88970840)         24 V DC (889701 and 889702)           Input voltage         12 V DC (-13 % / +20 %)         24 V DC (-20 % / +25 %)           Input current         3.9 mA @ 10,44 V DC 4,4 mA @ 12,0 V DC 5,3 mA @ 14,4 VDC         2,6 mA @ 19,2 V DC 3,2 mA @ 24 V DC           Input impedance         2.7 kΩ         4,0 mA @ 30,0 VDC           Logic 1 voltage threshold         ≥ 7 V DC         ≥ 15 V DC           Making current at logic state 1         ≥2 mA         ≥2.2 mA           Logic 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         I1 & 12 : FBD (Up to 6 k Hz) & Ladder (1 k Hz) 13 to IA & IH to IY : in accordance with cycle time (Tc) and input response time (Tr) : 1/ ((2 x Tc) + Tr)         I1 to IA & IH to IY : in accordance with cycle time (Tc) and input response time (Tr) : 1/ ((2 x Tc) + Tr)           Sensor type         Contact or 3-wire PNP         Contact or 3-wire PNP		XD26 with solid state outputs : 2.5 W	XD26-XB26	6 with exte	ension: 10 W		
Digital inputs (I1 to IA and IH to IY)         12 V DC (889705 & 88970814 & 88970840)         24 V DC (889701 and 889702)           Input voltage         12 V DC (-13 % / +20 %)         24 V DC (-20 % / +25 %)           Input current         3.9 mA @ 10,44 V DC 4,4 mA @ 12,0 V DC 5,3 mA @ 14,4 VDC         2,6 mA @ 19,2 V DC 3,2 mA @ 24 V DC           Input impedance         2.7 kΩ         4,0 mA @ 30,0 VDC           Logic 1 voltage threshold         ≥ 7 V DC         ≥ 15 V DC           Making current at logic state 1         ≥2 mA         ≥2.2 mA           Logic 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         I1 & 12 : FBD (Up to 6 k Hz) & Ladder (1 k Hz) 13 to IA & IH to IY : in accordance with cycle time (Tc) and input response time (Tr) : 1/ ((2 x Tc) + Tr)         I1 to IA & IH to IY : in accordance with cycle time (Tc) and input response time (Tr) : 1/ ((2 x Tc) + Tr)           Sensor type         Contact or 3-wire PNP         Contact or 3-wire PNP	Protection against polarity inversions	Yes		a. onto			
(889701 and 889702)   Input voltage			100		04.77.00		
Input voltage       12 V DC (-13 % / +20 %)       24 V DC (-20 % / +25 %)         Input current       3,9 mA @ 10,44 V DC       2,6 mA @ 19,2 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         Input impedance       2.7 kΩ       7.4 kΩ         Logic 1 voltage threshold       ≥ 7 V DC       ≥ 15 V DC         Making current at logic state 1       ≥2 mA       ≥2.2 mA         Logic 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       I1 & 12 : FBD (Up to 6 k Hz) & Ladder (1 k Hz) (13 to IA & IH to IY : in accordance with cycle time (Tc) and input response time (Tr) : 1/ ((2 x Tc) + Tr)       I3 to IA & IH to IY : in accordance with cycle time (Tc) and input response time (Tr) : 1/ ((2 x Tc) + Tr)         Sensor type       Contact or 3-wire PNP       Contact or 3-wire PNP	Digital inputs (IT to IA and IH to IY)						
Input current   3,9 mA @ 10,44 V DC   2,6 mA @ 19,2 V DC   4,4 mA @ 12,0 V DC   5,3 mA @ 14,4 VDC   4,0 mA @ 30,0 VDC   10put impedance   2.7 kΩ   7.4 kΩ   2 15 V DC   2 15 V DC   2 15 V DC   2 15 V DC   2 10 V DC   2					,		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Input voltage	12 V DC (-13 % / +20 %)			24 V DC (-20 % / +25 %)		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Input current	3,9 mA @ 10,44 V DC			2,6 mA @ 19,2 V DC		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		4,4 mA @ 12,0 V DC			3,2 mA @ 24 V DC		
Input impedance       2.7 kΩ       7.4 kΩ         Logic 1 voltage threshold       ≥ 7 V DC       ≥ 15 V DC         Making current at logic state 1       ≥2 mA       ≥2.2 mA         Logic 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       I1 & 12 : FBD (Up to 6 k Hz) & Ladder (1 k Hz) (13 to IA & IH to IY : in accordance with cycle time (Tc) and input response time (Tr) : 1/ ((2 x Tc) + Tr)       I3 to IA & IH to IY : in accordance with cycle time (Tr) : 1/ ((2 x Tc) + Tr)         Sensor type       Contact or 3-wire PNP       Contact or 3-wire PNP							
Logic 1 voltage threshold         ≥ 7 V DC         ≥ 15 V DC           Making current at logic state 1         ≥2 mA         ≥2.2 mA           Logic 0 voltage threshold         ≤ 3 V DC         ≤ 5 V DC           Release current at logic state 0         <0.9 mA	Input impedance						
Making current at logic state 1         ≥2 mA         ≥2.2 mA           Logic 0 voltage threshold         ≤3 V DC         ≤5 V DC           Release current at logic state 0         <0.9 mA							
Logic 0 voltage threshold         ≤ 3 V DC         ≤ 5 V DC           Release current at logic state 0         <0.9 mA							
Release current at logic state 0       <0.9 mA							
Response time         1 →2 cycle times + 6 ms         1 →2 cycle times + 6 ms           Maximum counting frequency         I1 & I2 : FBD (Up to 6 k Hz) & Ladder (1 k Hz)	Logic 0 voltage threshold	≤3 V DC			≤5 V DC		
Response time         1 →2 cycle times + 6 ms         1 →2 cycle times + 6 ms           Maximum counting frequency         I1 & I2 : FBD (Up to 6 k Hz) & Ladder (1 k Hz)	Release current at logic state 0	<0.9 mA			<0.75 mA		
Maximum counting frequency  I1 & I2 : FBD (Up to 6 k Hz) & Ladder (1 k Hz) I3 to IA & IH to IY : in accordance with cycle time (Tc) and input response time (Tr) : 1/ ((2 x Tc) + Tr)  Sensor type  I1 & I2 : FBD (Up to 6 k Hz) & Ladder (1 k Hz) I3 to IA & IH to IY : in accordance with cycle time (Tc) and input response time (Tr) : 1/ ((2 x Tc) + Tr)  Contact or 3-wire PNP	*						
I3 to IA & IH to IY: in accordance with cycle time (Tc) and input response time (Tr): 1/((2 x Tc) + Tr)  Sensor type  I3 to IA & IH to IY: in accordance with cycle time (Tc) and input response time (Tr): 1/((2 x Tc) + Tr)  Contact or 3-wire PNP  I3 to IA & IH to IY: in accordance with cycle time (Tc) and input response time (Tr): 1/((2 x Tc) + Tr)  Contact or 3-wire PNP	·				•		
response time (Tr) : $1/((2 \times Tc) + Tr)$ response time (Tr) : $1/((2 \times Tc) + Tr)$ Sensor type  Contact or 3-wire PNP  Contact or 3-wire PNP	waximum counting frequency			Linner		) and : !	
Sensor type Contact or 3-wire PNP Contact or 3-wire PNP		•	ume (ic) and	input	•	) and input	
		. , , , , , ,					
Conforming to IEC/EN 61131-2 Type 1	**	Contact or 3-wire PNP			Contact or 3-wire PNP		
	Conforming to IEC/EN 61131-2	Type 1			Type 1		

02/11/2015			
Input type	Resistive	Resistive	
Isolation between power supply and inputs	None	None	
		None	
Isolation between inputs	None		
Protection against polarity inversions	Yes	Yes	
Status indicator	On LCD screen for CD and XD	On LCD scre	een for CD and XD
		0 202 00	
Analogue or digital inputs (IB to IG)	12 V DC		24 V DC
	(889705 & 88970814 & 88970840)		(889701 and 889702)
CB12-CD12-XD10-XB10	4 inputs IB →IE		4 inputs IB →IE
			•
CB20-CD20-XB26-XD26	6 inputs IB →IG		6 inputs IB →IG
Inputs used as analogue inputsonly in FBD			
	(0 - 10 \/) or (0 - \/ nower august)	(0 . 10 \ / ) (	r (0) / nower eunnly)
Measurement range	$(0 \rightarrow 10 \text{ V})$ or $(0 \rightarrow \text{V power supply})$		r (0 →V power supply)
Input impedance	14 kΩ	12 kΩ	
Input voltage	14.4 V DC max	30 V DC ma	X
Value of LSB	14 mV	29 mV	
Input type	Common mode	Common mo	de
Resolution	10 bit at maximum input voltage	10 bit at max	imum input voltage
Conversion time			. •
	Controller cycle time	Controller cy	cie time
Accuracy at 25 °C	±5%	± 5 %	
Accuracy at 55 °C	± 6.2 %	± 6.2 %	
	± 2 %	± 2 %	
Repeat accuracy at 55 °C	± 2 %		
Isolation between analogue channel and power supply	None	None	
Cable length	10 m maximum, with shielded cable (sensor not isolated)	10 m maxim	um, with shielded cable (sensor not isolated)
	,		,
Protection against polarity inversions	Yes	Yes	
Potentiometer control	2.2 kΩ/0.5 W (recommended)	2.2 kΩ/0.5 V	/ (recommended)
	10 kΩ max.	10 kΩ max.	
Inpute used as digital inpute			
Inputs used as digital inputs			
Input voltage	12 V DC (-13 % / +20 %)	24 V DC (-2	0 % / +25 %)
Input current	0,7 mA @ 10,44 VDC	1,6 mA @ 1	3.2 VDC
mpos our one	0,9 mA @ 12,0 VDC	2,0 mA @ 2	
	1,0 mA @ 14,4VDC	2,5 mA @ 3	J,0 VDG
Input impedance	14 kΩ	12 kΩ	
Logic 1 voltage threshold	≥7 V DC	≥ 15 VDC	
Making current at logic state 1	≥0.5 mA	≥1.2 mA	
Logic 0 voltage threshold	≤3 V DC	≤ 5 V DC	
Release current at logic state 0	≤0.2 mA	≤0.5 mA	
·			
Response time	1 →2 cycle times	1 →2 cycle	imes
Maximum counting frequency in FBD	In accordance with cycle time (Tc) and input response time (Tr):	In accordan	ce with cycle time (Tc) and input response time (Tr):
	1/ ( (2 x Tc) + Tr)	1/ ( (2 x Tc)	
Consequence			•
Sensor type	Contact or 3-wire PNP	Contact or 3	-wire FINE
Conforming to IEC/EN 61131-2	Type 1	Type 1	
Input type	Resistive	Resistive	
Isolation between power supply and inputs	None	None	
Isolation between inputs	None	None	
Protection against polarity inversions	Yes	Yes	
Status indicator			een for CD and XD
Status indicator	On LCD screen for CD and XD	On LCD Sch	een for CD and AD
Characteristics of relay outputs common to the entire			
range			
	5 →30 V DC		
Max. breaking voltage			
	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		
Diodring carrott			
	XD26-XB26: 8 x 8 A relays, 2 x 5 A relays		
	XE10:4x5A relays		
Electrical durability for 500 000 operating cycles	XE10:4x5A relays		
Electrical durability for 500 000 operating cycles	XE10 : 4 x 5 A relays XR14 : 4 x 8 A relays, 2 x 5 A relays		
Electrical durability for 500 000 operating cycles	XE10 : 4 x 5 A relays XR14 : 4 x 8 A relays, 2 x 5 A relays Usage category DC-12 : 24 V, 1.5 A Usage category DC-13 : 24 V (L/R = 10 ms), 0.6 A		
Electrical durability for 500 000 operating cycles	XE10 : 4 x 5 A relays XR14 : 4 x 8 A relays, 2 x 5 A relays Usage category DC-12 : 24 V, 1.5 A Usage category DC-13 : 24 V (L/R = 10 ms), 0.6 A Usage category AC-12 : 230 V, 1.5 A		
	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A		
Electrical durability for 500 000 operating cycles  Minimum switching capacity	XE10 : 4 x 5 A relays XR14 : 4 x 8 A relays, 2 x 5 A relays Usage category DC-12 : 24 V, 1.5 A Usage category DC-13 : 24 V (L/R = 10 ms), 0.6 A Usage category AC-12 : 230 V, 1.5 A		
	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A		
Minimum switching capacity Minimum load	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA		
Minimum switching capacity	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz		
Minimum switching capacity Minimum load Maximum rate	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz At operating current: 0.1 Hz		
Minimum switching capacity Minimum load	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz		
Minimum switching capacity Minimum load Maximum rate Mechanical life	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz At operating current: 0.1 Hz 10,000,000 operations (cycles)		
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz At operating current: 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV		
Minimum switching capacity Minimum load Maximum rate Mechanical life	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz At operating current: 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV Make 10 ms		
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz At operating current: 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV		
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz At operating current: 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV Make 10 ms		
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks Off-cycle response time	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz At operating current: 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV Make 10 ms Release 5 ms Against short-circuits: None		
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks Off-cycle response time  Built-in protections	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz At operating current: 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV Make 10 ms Release 5 ms Against short-circuits: None Against overvoltages and overloads: None		
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks Off-cycle response time	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz At operating current: 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV Make 10 ms Release 5 ms Against short-circuits: None		
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks Off-cycle response time  Built-in protections	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz At operating current: 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV Make 10 ms Release 5 ms Against short-circuits: None Against overvoltages and overloads: None	24 V DC	
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks Off-cycle response time  Built-in protections  Status indicator	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A  10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz At operating current: 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV Make 10 ms Release 5 ms Against short-circuits: None Against overvoltages and overloads: None On LCD screen for CD and XD 12 V DC		
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks Off-cycle response time  Built-in protections  Status indicator Digital / PWM solid state output	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz At operating current: 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV Make 10 ms Release 5 ms Against short-circuits: None Against overvoltages and overloads: None On LCD screen for CD and XD 12 V DC (88970814 & 88970840)	(889702)	VP.10 - O4
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks Off-cycle response time  Built-in protections  Status indicator	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz At operating current: 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV Make 10 ms Release 5 ms Against short-circuits: None Against overvoltages and overloads: None On LCD screen for CD and XD 12 V DC (88970814 & 88970840) CB12: O4	(889702) CD12-XD10	
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks Off-cycle response time  Built-in protections  Status indicator Digital / PWM solid state output	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz At operating current: 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV Make 10 ms Release 5 ms Against short-circuits: None Against overvoltages and overloads: None On LCD screen for CD and XD 12 V DC (88970814 & 88970840)	(889702) CD12-XD10	XB10 : O4 XB26 : O4 →O7
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks Off-cycle response time  Built-in protections  Status indicator Digital / PWM solid state output  PWM solid state output*	XE10 : 4 x 5 A relays XR14 : 4 x 8 A relays, 2 x 5 A relays Usage category DC-12 : 24 V, 1.5 A Usage category DC-13 : 24 V (L/R = 10 ms), 0.6 A Usage category AC-12 : 230 V, 1.5 A Usage category AC-15 : 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load : 10 Hz At operating current : 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1 : 4 kV Make 10 ms Release 5 ms Against short-circuits : None Against overvoltages and overloads : None On LCD screen for CD and XD 12 V DC (88970814 & 88970840) CB12 : O4 XD26 : O4 →O7	(889702) CD12-XD10	
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks Off-cycle response time  Built-in protections  Status indicator Digital / PWM solid state output  PWM solid state output*  * Only available with "FBD" programming language	XE10 : 4 x 5 A relays XR14 : 4 x 8 A relays, 2 x 5 A relays Usage category DC-12 : 24 V, 1.5 A Usage category DC-13 : 24 V (L/R = 10 ms), 0.6 A Usage category AC-12 : 230 V, 1.5 A Usage category AC-15 : 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load : 10 Hz At operating current : 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1 : 4 kV Make 10 ms Release 5 ms Against short-circuits : None Against overvoltages and overloads : None On LCD screen for CD and XD 12 V DC (88970814 & 88970840) CB12 : O4 XD26 : O4 → O7 * Only available with "FBD" programming language	(889702) CD12-XD10- CD20-XD26	XB26 : O4 →O7
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks Off-cycle response time  Built-in protections  Status indicator Digital / PWM solid state output  PWM solid state output*  * Only available with "FBD" programming language Breaking voltage	XE10 : 4 x 5 A relays XR14 : 4 x 8 A relays, 2 x 5 A relays Usage category DC-12 : 24 V, 1.5 A Usage category DC-13 : 24 V (L/R = 10 ms), 0.6 A Usage category AC-12 : 230 V, 1.5 A Usage category AC-15 : 230 V, 0.9 A  10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load : 10 Hz At operating current : 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1 : 4 kV Make 10 ms Release 5 ms Against short-circuits : None Against overvoltages and overloads : None On LCD screen for CD and XD 12 V DC (88970814 & 88970840) CB12 : O4 XD26 : O4 → O7 * Only available with "FBD" programming language 10.4 →30 VDC	(889702) CD12-XD10- CD20-XD26- 19.2 →30 V	XB26 : O4 →O7
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks Off-cycle response time  Built-in protections  Status indicator Digital / PWM solid state output  PWM solid state output*  * Only available with "FBD" programming language	XE10 : 4 x 5 A relays XR14 : 4 x 8 A relays, 2 x 5 A relays Usage category DC-12 : 24 V, 1.5 A Usage category DC-13 : 24 V (L/R = 10 ms), 0.6 A Usage category AC-12 : 230 V, 1.5 A Usage category AC-15 : 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load : 10 Hz At operating current : 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1 : 4 kV Make 10 ms Release 5 ms Against short-circuits : None Against overvoltages and overloads : None On LCD screen for CD and XD 12 V DC (88970814 & 88970840) CB12 : O4 XD26 : O4 → O7 * Only available with "FBD" programming language	(889702) CD12-XD10- CD20-XD26	XB26 : O4 →O7
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks Off-cycle response time  Built-in protections  Status indicator Digital / PWM solid state output  PWM solid state output*  * Only available with "FBD" programming language Breaking voltage Nominal voltage	XE10 : 4 x 5 A relays XR14 : 4 x 8 A relays, 2 x 5 A relays Usage category DC-12 : 24 V, 1.5 A Usage category DC-13 : 24 V (L/R = 10 ms), 0.6 A Usage category AC-12 : 230 V, 1.5 A Usage category AC-15 : 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load : 10 Hz At operating current : 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1 : 4 kV Make 10 ms Release 5 ms Against short-circuits : None Against overvoltages and overloads : None On LCD screen for CD and XD 12 V DC (88970814 & 88970840) CB12 : O4 XD26 : O4 → O7 * Only available with "FBD" programming language 10.4 → 30 VDC 12-24 V DC	(889702) CD12-XD10- CD20-XD26- 19.2 →30 V 24 V DC	XB26 : O4 →O7
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks Off-cycle response time  Built-in protections  Status indicator Digital / PWM solid state output  PWM solid state output*  * Only available with "FBD" programming language Breaking voltage Nominal voltage Nominal current	XE10 : 4 x 5 A relays XR14 : 4 x 8 A relays, 2 x 5 A relays Usage category DC-12 : 24 V, 1.5 A Usage category DC-13 : 24 V (L/R = 10 ms), 0.6 A Usage category AC-12 : 230 V, 1.5 A Usage category AC-15 : 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load : 10 Hz At operating current : 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1 : 4 kV Make 10 ms Release 5 ms Against short-circuits : None Against overvoltages and overloads : None On LCD screen for CD and XD 12 V DC (88970814 & 88970840) CB12 : 04 XD26 : 04 →07 * Only available with "FBD" programming language 10.4 →30 VDC 12-24 V DC 0.5 A	(889702) CD12-XD10- CD20-XD26- 19.2 →30 V 24 V DC 0.5 A	XB26 : O4 →O7
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks Off-cycle response time  Built-in protections  Status indicator Digital / PWM solid state output  PWM solid state output*  * Only available with "FBD" programming language Breaking voltage Nominal voltage Nominal current Max. breaking current	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz At operating current: 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV Make 10 ms Release 5 ms Against short-circuits: None Against overvoltages and overloads: None On LCD screen for CD and XD 12 V DC (88970814 & 88970840) CB12: O4 XD26: O4 →O7 * Only available with "FBD" programming language 10.4 →30 VDC 12-24 V DC 0.5 A 0,625 A	(889702) CD12-XD10- CD20-XD26- 19.2 →30 V 24 V DC 0.5 A 0,625 A	XB26 : O4 →O7 OC
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks Off-cycle response time  Built-in protections  Status indicator Digital / PWM solid state output  PWM solid state output*  * Only available with "FBD" programming language Breaking voltage Nominal voltage Nominal current	XE10 : 4 x 5 A relays XR14 : 4 x 8 A relays, 2 x 5 A relays Usage category DC-12 : 24 V, 1.5 A Usage category DC-13 : 24 V (L/R = 10 ms), 0.6 A Usage category AC-12 : 230 V, 1.5 A Usage category AC-15 : 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load : 10 Hz At operating current : 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1 : 4 kV Make 10 ms Release 5 ms Against short-circuits : None Against overvoltages and overloads : None On LCD screen for CD and XD 12 V DC (88970814 & 88970840) CB12 : 04 XD26 : 04 →07 * Only available with "FBD" programming language 10.4 →30 VDC 12-24 V DC 0.5 A	(889702) CD12-XD10- CD20-XD26- 19.2 →30 V 24 V DC 0.5 A 0,625 A	XB26 : O4 →O7
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks Off-cycle response time  Built-in protections  Status indicator Digital / PWM solid state output  PWM solid state output*  * Only available with "FBD" programming language Breaking voltage Nominal voltage Nominal current Max. breaking current Voltage drop	XE10 : 4 x 5 A relays XR14 : 4 x 8 A relays, 2 x 5 A relays Usage category DC-12 : 24 V, 1.5 A Usage category DC-13 : 24 V (L/R = 10 ms), 0.6 A Usage category AC-12 : 230 V, 1.5 A Usage category AC-15 : 230 V, 0.9 A  10 mA (at minimum voltage of 12 V) 12 V, 10 mA  Off load : 10 Hz At operating current : 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1 : 4 kV Make 10 ms Release 5 ms Against short-circuits : None Against overvoltages and overloads : None On LCD screen for CD and XD 12 V DC (88970814 & 88970840) CB12 : O4 XD26 : O4 → O7  * Only available with "FBD" programming language 10.4 → 30 VDC 12-24 V DC 0.5 A 0,625 A ≤ 2 V for I = 0.5 A (at state 1)	(889702) CD12-XD10- CD20-XD26- 19.2 →30 V 24 V DC 0.5 A 0,625 A ≤ 2 V for I =	XB26 : O4 →O7  OC  0.5 A (at state 1)
Minimum switching capacity Minimum load Maximum rate  Mechanical life Voltage for withstanding shocks Off-cycle response time  Built-in protections  Status indicator Digital / PWM solid state output  PWM solid state output*  * Only available with "FBD" programming language Breaking voltage Nominal voltage Nominal current Max. breaking current	XE10: 4 x 5 A relays XR14: 4 x 8 A relays, 2 x 5 A relays Usage category DC-12: 24 V, 1.5 A Usage category DC-13: 24 V (L/R = 10 ms), 0.6 A Usage category AC-12: 230 V, 1.5 A Usage category AC-15: 230 V, 0.9 A 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz At operating current: 0.1 Hz 10,000,000 operations (cycles) In accordance with IEC/EN 60947-1 and IEC/EN 60664-1: 4 kV Make 10 ms Release 5 ms Against short-circuits: None Against overvoltages and overloads: None On LCD screen for CD and XD 12 V DC (88970814 & 88970840) CB12: O4 XD26: O4 →O7 * Only available with "FBD" programming language 10.4 →30 VDC 12-24 V DC 0.5 A 0,625 A	(889702) CD12-XD10- CD20-XD26- 19.2 →30 V 24 V DC 0.5 A 0,625 A	XB26 : O4 →O7  OC  0.5 A (at state 1)

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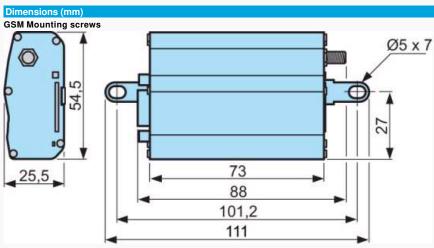
Operating frequency	1 Maximum on inductive load	1 Maximum on inductive load
Built-in protections	Against overloads and short-circuits : Yes	Against overloads and short-circuits : Yes
	Against overvoltages (*) : Yes	Against overvoltages (*) : Yes
	Against inversions of power supply: Yes	Against inversions of power supply: Yes
	(*) In the absence of a volt-free contact between the output of the	(*) In the absence of a volt-free contact between the output of the
	logic controller and the load	logic controller 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	<i>'</i>
Galvanic isolation	No	No
PWM frequency	14.11 Hz	14.11 Hz
	56.45 Hz	56.45 Hz
	112.90 Hz	112.90 Hz
	225.80 Hz	225.80 Hz
	451.59 Hz	451.59 Hz
	1806.37 Hz	1806.37 Hz
PWM cyclic ratio	0 →100 % (256 steps for CD, XD and 1024 for XA)	$0 \rightarrow 100 \%$ (256 steps for CD, XD and 1024 for XA)
PWM accuracy at 120 Hz	< 5 % (20 % $\rightarrow$ 80 %) load at 10 mA	< 5 % (20 % →80 %) load at 10 mA
Max. Breaking current PWM	50 mA	50 mA
Max. cable length PWM	20 m	20 m
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 CD and XD	On LCD screen for CD and XD

#### Accessories

Туре	Description	Code
PA	1.80 m serial link cable: DB9 M / DB9 F	88970123
M3 ALARM	Alarm management software (CD-ROM)	88970116

## **Principles**

Functions	Remote station device					
	Analogue PSTN modem	GSM modern				
		Type of SIM card				
		modem	Data	Data voice		Voice
			Data nº	Voice n°		
Send alarm/receive instructions with GSM telephone						
Send alarm/receive instructions with PC running "M3 Alarm" software (1)						
Transfer program Update firmware Monitoring (1)						
Send alarm to e-mail address						
Functions available Func	tions not avail	able				



## Dimensions (mm)

**GSM Mounting profile** 

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