

Smart "Expandable" range without display XB26 Smart Part number 88974153



- 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)
- Open to XN network communication extensions, digital I/O, analogue, Pt100 extensions

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Type	Inputs	Outputs	Supply
88974153 XB26 Smart	16 digital	10 relays (8 x 8 A relay and 2 x 5 A relay)	100 →240 V AC

Specifications

Conformity to standards (with the low voltage directive and EMC directive) ECIEN 61131-2 (Zone B) ECIEN 61000-6-2, IECIEN 61000-6-2, IECIEN 61000-6-2, IECIEN 61000-6-2, IECIEN 61000-6-3, IECIEN 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 enc Not included Protection rating Protection rating In accordance with IECIEN 60529: IP40 on front panel IP20 on terminal block Overvoltage category 3 in accordance with IECIEN 60564-1 Pollution Degree: 2 in accordance with IECIEN 60664-1 Operation: 2000 m Transport: 3048 m Max operating Altitude Operation: 2000 m Transport: 3048 m Immunity to vibrations IECIEN 60068-2-6, test Fc Immunity to vibrations IECIEN 60068-2-27, test Ea Immunity to shock IECIEN 60068-2-27, test Ea Immunity to radiated electrostatic fields IECIEN 61000-4-2, level 3 Immunity to fast transients (burst immunity) IECIEN 61000-4-3 Immunity to fast transients (burst immunity) IECIEN 61000-4-4, level 3 Immunity to shock waves IECIEN 61000-4-1 Immunity to momen mode IECIEN 61000-4-1 Immunity to adapted scallatory waves IECIEN 61000-4-12 Conducted and radiated emissions Class B (*) in accordance with IESO22, EN 55011 (CISPR22, CISPR11) group 1 (*) Except configuration (88 970 1.1 or 88 970 1.2) +	osure)
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(*) 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 1.5 mm ² (AWG 25AWG 16)	
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)

Storage temperature Processing characteristics of CB, CD, XD & XB product of Display Programming method Program size Program memory Removable memory Data memory Back-up time in the event of power failure Cycle time Response time Clock data retention Clock drift Timer block accuracy Start up time on power up Characteristics of products with AC power supplied Supply Nominal voltage Operating limits Supply frequency range Immunity from micro power cuts Max. absorbed power	CD, XD: Display with 4 lines of 18 characters Function blocks / SCF (Grafcet) or Ladder 8 Kb: 350 typical blocks, 64 macros maximum, 256 bloc or 120 lines in Ladder Flash EEPROM EEPROM 368 bit/200 words Program and settings in the controller: 10 years Program and settings in the plug-in memory: 10 years Program and settings in the plug-in memory: 10 years PBD: 6 → 90 ms (typically 20 ms) Ladder: typically 20 ms Input acquisition time: 1 to 2 cycle times 10 years (lithium battery) at 25 °C Drift < 12 min/year (at 25 °C) 6 s/month (at 25 °C with user-definable correction of dr 1 % ± 2 cycle times < 1,2 s	rift) 100 →24(-15 % / +	DV AC		
Processing characteristics of CB, CD, XD & XB processing characteris	-30 →+80 °C duct types CD, XD: Display with 4 lines of 18 characters Function blocks / SCF (Grafcet) or Ladder 8 Kb: 350 typical blocks, 64 macros maximum, 256 bloc or 120 lines in Ladder Flash EEPROM EEPROM 368 bit/200 words Program and settings in the controller: 10 years Program and settings in the plug-in memory: 10 years Data memory: 10 years FBD: 6 →90 ms (typically 20 ms) Ladder: typically 20 ms Input acquisition time: 1 to 2 cycle times 10 years (lithium battery) at 25 °C Drift < 12 min/year (at 25 °C) 6 s/month (at 25 °C with user-definable correction of dr 1 % ± 2 cycle times < 1,2 s d 24 V AC -15 % / +20 % or 20.4 V AC →28.8 V AC 50/60 Hz (+4 % / -6 %) or 47 →53 Hz/57 →63 Hz	rift) 100 →24(-15 % / +	DV AC		
Processing characteristics of CB, CD, XD & XB processing characteris	duct types CD, XD: Display with 4 lines of 18 characters Function blocks / SCF (Grafcet) or Ladder 8 Kb: 350 typical blocks, 64 macros maximum, 256 blocor 120 lines in Ladder Flash EEPROM EEPROM 368 bit/200 words Program and settings in the controller: 10 years Program and settings in the plug-in memory: 10 years Program and settings in the plug-in memory: 10 years Pata memory: 10 years FBD: 6 → 90 ms (typically 20 ms) Ladder: typically 20 ms Input acquisition time: 1 to 2 cycle times 10 years (lithium battery) at 25 °C Drift < 12 min/year (at 25 °C) 6 s/month (at 25 °C with user-definable correction of drift in the controller in the correction of drift in the controller in the controlle	rift) 100 →24(-15 % / +	DV AC		
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Back-up time in the event of power failure Cycle time Response time Clock data retention Clock drift Timer block accuracy Start up time on power up Characteristics of products with AC power supplied Supply Nominal voltage Operating limits Supply frequency range Immunity from micro power cuts Max. absorbed power	Program and settings in the controller : 10 years Program and settings in the plug-in memory : 10 years Data memory : 10 years FBD : 6 → 90 ms (typically 20 ms) Ladder : typically 20 ms Ladder : typically 20 ms Input acquisition time : 1 to 2 cycle times 10 years (lithium battery) at 25 °C Drift < 12 min/year (at 25 °C) 6 s/month (at 25 °C with user-definable correction of dr 1 % ± 2 cycle times < 1,2 s d 24 V AC -15 % / +20 % or 20.4 V AC→28.8 V AC 50/60 Hz (+4 % / -6 %) or 47 →53 Hz/57 →63 Hz	100 →240 -15 % / + ²			
Cycle time Response time Clock data retention Clock drift Timer block accuracy Start up time on power up Characteristics of products with AC power supplied Supply Nominal voltage Operating limits Supply frequency range Immunity from micro power cuts Max. absorbed power	Program and settings in the plug-in memory: 10 years Data memory: 10 years FBD: 6 → 90 ms (typically 20 ms) Ladder: typically 20 ms Input acquisition time: 1 to 2 cycle times 10 years (lithium battery) at 25 °C Drift < 12 min/year (at 25 °C) 6 s/month (at 25 °C with user-definable correction of dr 1 % ± 2 cycle times < 1,2 s d 24 V AC -15 % / +20 % or 20.4 V AC→28.8 V AC 50/60 Hz (+4 % / -6 %) or 47 →53 Hz/57 →63 Hz	100 →240 -15 % / + ²			
Response time Clock data retention Clock drift Timer block accuracy Start up time on power up Characteristics of products with AC power supplied Supply Nominal voltage Operating limits Supply frequency range Immunity from micro power cuts Max. absorbed power	Ladder : typically 20 ms Input acquisition time : 1 to 2 cycle times 10 years (lithium battery) at 25 °C Drift < 12 min/year (at 25 °C) 6 s/month (at 25 °C with user-definable correction of dr 1 % ± 2 cycle times < 1,2 s d 24 V AC -15 % / +20 % or 20.4 V AC→28.8 V AC 50/60 Hz (+4 % / -6 %) or 47 →53 Hz/57 →63 Hz	100 →240 -15 % / + ²			
Clock data retention Clock drift Timer block accuracy Start up time on power up Characteristics of products with AC power supplied Supply Nominal voltage Operating limits Supply frequency range Immunity from micro power cuts Max. absorbed power	10 years (lithium battery) at 25 °C Drift < 12 min/year (at 25 °C) 6 s/month (at 25 °C with user-definable correction of dr 1 % ± 2 cycle times < 1,2 s d 24 V AC -15 % / +20 % or 20.4 V AC—28.8 V AC 50/60 Hz (+4 % / -6 %) or 47 →53 Hz/57 →63 Hz	100 →240 -15 % / + ²			
Clock drift Timer block accuracy Start up time on power up Characteristics of products with AC power supplied Supply Nominal voltage Operating limits Supply frequency range Immunity from micro power cuts Max. absorbed power	Drift < 12 min/year (at 25 °C) 6 s/month (at 25 °C with user-definable correction of dr 1 % ± 2 cycle times < 1,2 s d 24 V AC -15 % / +20 % or 20.4 V AC→28.8 V AC 50/60 Hz (+4 % / -6 %) or 47 →53 Hz/57 →63 Hz	100 →240 -15 % / + ²			
Timer block accuracy Start up time on power up Characteristics of products with AC power supplied Supply Nominal voltage Operating limits Supply frequency range Immunity from micro power cuts Max. absorbed power	6 s/month (at 25 °C with user-definable correction of dr 1 % ± 2 cycle times < 1,2 s d 24 V AC -15 % / +20 % or 20.4 V AC—28.8 V AC 50/60 Hz (+4 % / -6 %) or 47 —53 Hz/57 —63 Hz	100 →240 -15 % / + ²			
Timer block accuracy Start up time on power up Characteristics of products with AC power supplied Supply Nominal voltage Operating limits Supply frequency range Immunity from micro power cuts Max. absorbed power	1 % ± 2 cycle times < 1,2 s d 24 V AC -15 % / +20 % or 20.4 V AC—28.8 V AC 50/60 Hz (+4 % / -6 %) or 47 —53 Hz/57 —63 Hz	100 →240 -15 % / + ²			
Start up time on power up Characteristics of products with AC power supplied Supply Nominal voltage Operating limits Supply frequency range Immunity from micro power cuts Max. absorbed power	< 1,2 s d 24 V AC -15 % / +20 % or 20.4 V AC—28.8 V AC 50/60 Hz (+4 % / -6 %) or 47 —53 Hz/57 —63 Hz	-15 % / +1			
Characteristics of products with AC power supplied Supply Nominal voltage Operating limits Supply frequency range Immunity from micro power cuts Max. absorbed power	24 V AC -15 % / +20 % or 20.4 V AC→28.8 V AC 50/60 Hz (+4 % / -6 %) or 47 →53 Hz/57 →63 Hz	-15 % / +1			
Supply Nominal voltage Operating limits Supply frequency range Immunity from micro power cuts Max. absorbed power	24 V AC -15 % / +20 % or 20.4 V AC→28.8 V AC 50/60 Hz (+4 % / -6 %) or 47 →53 Hz/57 →63 Hz	-15 % / +1			
Nominal voltage Operating limits Supply frequency range Immunity from micro power cuts Max. absorbed power	-15 % / +20 % or 20.4 V AC→28.8 V AC 50/60 Hz (+4 % / -6 %) or 47 →53 Hz/57 →63 Hz	-15 % / +1			
Operating limits Supply frequency range Immunity from micro power cuts Max. absorbed power	-15 % / +20 % or 20.4 V AC→28.8 V AC 50/60 Hz (+4 % / -6 %) or 47 →53 Hz/57 →63 Hz	-15 % / +1			
Supply frequency range Immunity from micro power cuts Max. absorbed power	or 20.4 V AC→28.8 V AC 50/60 Hz (+4 % / -6 %) or 47 →53 Hz/57 →63 Hz		10 %		
Immunity from micro power cuts Max. absorbed power ()	or 47 →53 Hz/57 →63 Hz		C→264 V AC		
Immunity from micro power cuts Max. absorbed power		50/60 Hz	(+ 4 % / - 6 %) or 47 →53 Hz/57 →63 Hz		
Max. absorbed power		10 ms (re	petition 20 times)		
	CB12-CD12-XD10-XB10 : 4 VA		12-XD10-XB10 : 7 VA		
	CB20-CD20 : 6 VA		20 : 11 VA		
	XD10-XB10 with extension : 7.5 VA		10 with extension : 12 VA		
	XD26-XB26 : 7.5 VA		26 : 12 VA 26 with extension : 17 VA		
	1780 V AC	1780 V A			
Inputs					
	24 V AC (-15 % / +20 %)		100 →240 V AC (-15 % / +10 %)		
i v	4.4 mA @ 20.4 V AC		,		
	5.2 mA @ 24.0 V AC 6.3 mA @ 28.8 V AC		0.24 mA @ 85 V AC 0.75 mA @ 264 V AC		
Input impedance	4.6 kΩ		350 kΩ		
3 3	≥ 14 V AC		≥ 79 V AC		
Making current at logic state 1	> 2 mA		> 0.17 mA		
	≤ 5 V AC		≤ 20 V AC (≤ 28 V AC : XE10, XR06, XR10, XR14)		
Š	< 0.5 mA 50 ms		< 0.5 mA 50 ms		
	State 0 →1 (50/60 Hz)		State 0 →1 (50/60 Hz)		
	Configurable in increments of 10 ms 50 ms min. up to 255 ms		Configurable in increments of 10 ms 50 ms min. up to 255 ms State $0 \rightarrow 1$ (50/60 Hz)		
	State $0 \rightarrow 1$ (50/60 Hz) In accordance with cycle time (Tc) and input response t	time (Tr) :	In accordance with cycle time (Tc) and input response time (Tr):		
	1/ ((2 x Tc) + Tr)	() .	1/ ((2 x Tc) + Tr)		
21	Contact or 3-wire PNP		Contact or 3-wire PNP		
1 31	Resistive		Resistive		
	None		None		
	None Yes		None Yes		
	On LCD screen for CD and XD		On LCD screen for CD and XD		
Characteristics of relay outputs common to the ent					
	5 →30 V DC				
	24 →250 V AC				
	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				
	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			
	XR14 : 4 x 8 A relays, 2 x 5 A relays RBT (Removable Terminal Blocks) versions : verify the	maximum c	urrent according to the type of connection used		
Electrical durability for 500 000 operating cycles	XR14 : 4 x 8 A relays, 2 x 5 A relays RBT (Removable Terminal Blocks) versions : verify the Utilization category DC-12 : 24 V, 1.5 A	maximum c	urrent according to the type of connection used		
Electrical durability for 500 000 operating cycles	XR14 : 4 x 8 A relays, 2 x 5 A relays RBT (Removable Terminal Blocks) versions : verify the	maximum c	urrent according to the type of connection used		
Electrical durability for 500 000 operating cycles	XR14: 4 x 8 A relays, 2 x 5 A relays RBT (Removable Terminal Blocks) versions: verify the 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	maximum c	urrent according to the type of connection used		
Electrical durability for 500 000 operating cycles Max. Output Common Current	XR14: 4×8 A relays, 2×5 A relays RBT (Removable Terminal Blocks) versions: verify the 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 12 A for O8, O9, OA	maximum c	urrent according to the type of connection used		
Electrical durability for 500 000 operating cycles Max. Output Common Current Minimum switching capacity	XR14: 4 x 8 A relays, 2 x 5 A relays RBT (Removable Terminal Blocks) versions: verify the 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 12 A for O8, O9, OA	maximum c	urrent according to the type of connection used		
Electrical durability for 500 000 operating cycles Max. Output Common Current Minimum switching capacity Minimum load	XR14: 4 x 8 A relays, 2 x 5 A relays RBT (Removable Terminal Blocks) versions: verify the 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 12 A for O8, O9, OA 10 mA (at minimum voltage of 12 V) 12 V, 10 mA	maximum c	urrent according to the type of connection used		
Electrical durability for 500 000 operating cycles Max. Output Common Current Minimum switching capacity Minimum load Maximum rate	XR14: 4 x 8 A relays, 2 x 5 A relays RBT (Removable Terminal Blocks) versions: verify the 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 12 A for O8, O9, OA	maximum c	urrent according to the type of connection used		
Electrical durability for 500 000 operating cycles Max. Output Common Current Minimum switching capacity Minimum load Maximum rate Mechanical life	XR14: 4 x 8 A relays, 2 x 5 A relays RBT (Removable Terminal Blocks) versions: verify the Utilization category DC-12: 24 V, 1.5 A Utilization category AC-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 12 A for O8, O9, OA 10 mA (at minimum voltage of 12 V) 12 V, 10 mA Off load: 10 Hz		urrent according to the type of connection used		

02/11/2015			
Off-cycle response time	Make 10 ms		
	Release 5 ms		
Built-in protections	Against short-circuits : None		
Status indicator	Against overvoltages and overloads : None On LCD screen for CD and XD		
Characteristics of product with DC power supp	lied		
Supply	40.1/20	041450	
Nominal voltage Operating limits	12 V DC	24 V DC	
Operating limits	-13 % / +20 % or 10.4 V DC→14.4 V DC (including ripple)	-20 % / +25 % or 19.2 V DC→30 V	DC (including ripple)
Immunity from micro power cuts	≤ 1 ms (repetition 20 times)	≤ 1 ms (repetition 20	
Max. absorbed power	CB12 with solid state outputs: 1.5 W CD12: 1.5 W CD20: 2.5 W XD26-XB26: 3 W XD26-XB26 with extension: 5 W XD26 with solid state outputs: 2.5 W	CB12-CD12-CD20 w XD10-XB10 with rela XD26-XB26 with soli CB20-CD20 with rela XD26 with relay outp XD10-XB10 with ext XD26-XB26 with ext	rith solid state outputs - XD10-XB10 with solid state outputs : 3 W ay outputs : 4 W d state outputs : 5 W ay outputs : 6 W outputs : 6 W ension : 8 W
Protection against polarity inversions	Yes	Yes	
Digital inputs (I1 to IA and IH to IY)			
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 5.3 mA @ 14.4 VDC		3.2 mA @ 24 V DC 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	Inputs I1 & I2 : FBD (up to 6 k Hz) & Ladder (Inputs I3 to IA & IH to IY : In accordance with input response time (Tr) : 1/ ((2 x Tc) + Tr)		Inputs I1 & I2 : FBD (up to 6 k Hz) & Ladder (1 k Hz) Inputs 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
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 Status indicator	Yes On LCD screen for CD and XD		Yes On LCD screen for CD and XD
	on Edb dollari lor db drid XB		on Edd octoon for ob did Ab
Analogue or digital inputs (IB to IG)	4 innute ID IF		4 inc. de ID IE
CB12-CD12-XD10-XB10 CB20-CD20-XB26-XD26	4 inputs IB →IE 6 inputs IB →IG		4 inputs IB →IE 6 inputs IB →IG
	o inpute is -710		o inputo is —/io
Inputs used as analogue inputsonly in FBD	(0. 40.10 as (0. 1) as assault (0. 1)		(0 40 V) (0 V
Measurement range Input impedance	$(0 \rightarrow 10 \text{ V})$ or $(0 \rightarrow \text{V power supply})$ 14 kΩ		$(0 \rightarrow 10 \text{ V})$ or $(0 \rightarrow \text{V})$ power supply) 12 k Ω
Input voltage	14.4 V DC max.		30 V DC max.
Value of LSB	14.4 V DC Max.		29 mV
Input type	Common mode		Common mode
Resolution	10 bit at max. input voltage		10 bit at max. input voltage
Conversion time	Controller cycle time		Controller cycle time
Accuracy at 25 °C	±5%		± 5 %
Accuracy at 55 °C	± 6.2 %		± 6.2 %
Repeat accuracy at 55 °C	± 2 %		± 2 %
Isolation between analogue channel and power supply			None
Cable length	10 m maximum, with shielded cable (sensor	not isolated)	10 m maximum, with shielded cable (sensor not isolated)
Protection against polarity inversions	Yes		Yes
Potentiometer control	2.2 kΩ/0.5 W (recommended) 10 kΩ max.		2.2 kΩ/0.5 W (recommended) 10 kΩ max.
Investo consideration to	. 3 1142 1114111		
Inputs used as digital inputs	12 V DC (12 0/ / 120 0/)		24 \ \ DC \ \ 20 % \ \ ±25 % \
Input current	12 V DC (-13 % / +20 %)		24 V DC (-20 % / +25 %)
Input current	0.7 mA @ 10.44 VDC 0.9 mA @ 12.0 VDC		1.6 mA @ 19.2 VDC 2.0 mA @ 24.0 V DC
	1.0 mA @ 14.4VDC		2.5 mA @ 30.0 VDC
Input impedance	14 kΩ		12 kΩ
Logic 1 voltage threshold	≥ 7 V DC		≥ 15 VDC
Making current at logic state 1			≥ 1.2 mA
Logic 0 voltage threshold	≥ 0.5 mA		
Delegas suggested to the Company of	≤3 V DC		≤5 V DC
Release current at logic state 0	≤ 3 V DC ≤ 0.2 mA		≤ 5 V DC ≤ 0.5 mA
Release current at logic state 0 Response time Maximum counting frequency in FBD	≤3 V DC	response time (Tr):	≤5 V DC
Response time	≤ 3 V DC ≤ 0.2 mA 1 →2 cycle times In accordance with cycle time (Tc) and input	response time (Tr):	≤ 5 V DC ≤ 0.5 mA 1 →2 cycle times In accordance with cycle time (Tc) and input response time (Tr):
Response time Maximum counting frequency in FBD	≤ 3 V DC ≤ 0.2 mA 1 →2 cycle times In accordance with cycle time (Tc) and input 1/((2 x Tc) + Tr)	: response time (Tr):	≤ 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)
Response time Maximum counting frequency in FBD Sensor type	≤ 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	: response time (Tr):	≤ 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
Response time Maximum counting frequency in FBD Sensor type Conforming to IEC/EN 61131-2 Input type Isolation between power supply and inputs	≤ 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	response time (Tr):	≤ 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
Response time Maximum counting frequency in FBD Sensor type Conforming to IEC/EN 61131-2 Input type Isolation between power supply and inputs Isolation between inputs	≤ 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	i response time (Tr):	≤ 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 None
Response time Maximum counting frequency in FBD Sensor type Conforming to IEC/EN 61131-2 Input type Isolation between power supply and inputs	≤ 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	response time (Tr):	≤ 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

Characteristics of relay outputs common to the	entire range	
Max. breaking voltage	5 →30 V DC	
N - 0 - 10 0 1	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 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	
Maximan rate	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	
Status indicator	Against overvoltages and overloads : None On LCD screen for CD and XD	
	On LCD screen for CD and XD	
Digital / PWM solid state output		
PWM solid state output*	CB12: O4	CD12-XD10-XB10: O4
* Only evailable with "CRD" programming language	XD26: O4 →O7	CD20-XD26-XB26 : O4 →O7
* Only available with "FBD" programming language Breaking voltage	* Only available with "FBD" programming language 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	Make ≤ 1 ms
	Release ≤ 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 overloads and short-circuits : Yes
	Against overvoltages (*) : Yes Against inversions of power supply : Yes	Against overvoltages (*) : Yes Against inversions of power supply : Yes
	(*) In the absence of a volt-free contact between the logic	(*) In the absence of a volt-free contact between the logic
	controller output and the load	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	1
Galvanic isolation	No	No
PWM frequency	14.11 Hz 56.45 Hz	14.11 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 steps for XA)	0 →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 PWM accuracy at 500 Hz	< 5 % (20 % →80 %) load at 10 mA < 10 % (20 % →80 %) load at 10 mA	< 5 % (20 % →80 %) load at 10 mA < 10 % (20 % →80 %) load at 10 mA
Status indicator	< 10 % (20 % →80 %) load at 10 mA On LCD screen for XD	\(\text{10 \% (20 \% → 80 \%) load at 10 mA \) \(\text{On LCD screen for CD and XD} \)
Status indicator	OILEOD SCIEGII IOI AD	OIL FOR 2016611 IOL OR WIN VD

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

Dimensions (mm)

XD26 Smart

^{*} to be marketed 1st quarter 2006

02/11/2015 124,6 113,3 9'201 57,5 67,5