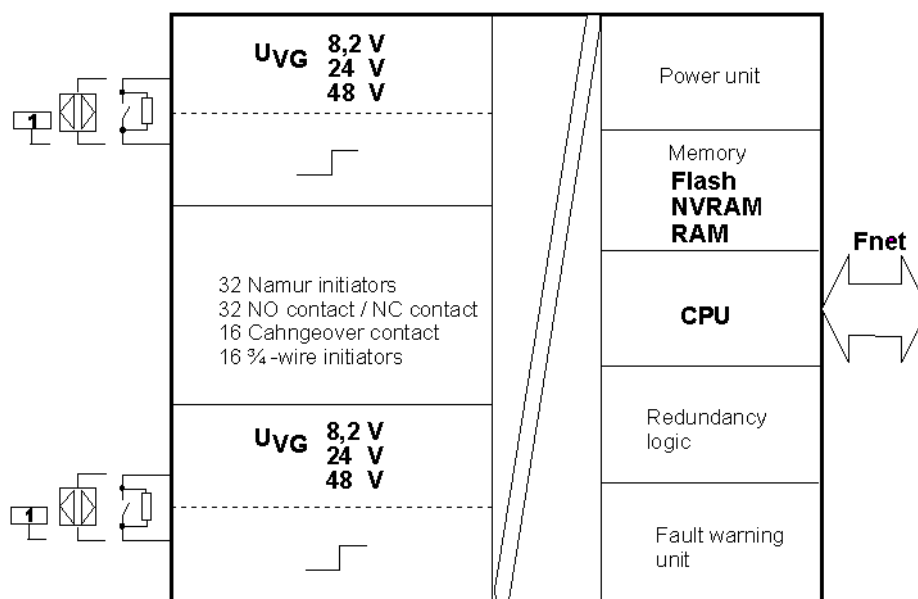


CBI 20 - Binary input module

Features / Applications



- 32 binary inputs divided into two supply groups each with 16 inputs
- Signal recording with 1 ms time resolution
- Monitoring of module
- Central galvanic separation of system inputs
- Group-set filter time
- Module is capable of redundancy

The binary input module CBI 20 serves to interrogate the following sensors/signals:

- 48 V - contacts:
 - Max. 32 NC contact
 - Max. 32 NO contact
 - Max. 32 2-conductor changeover contact
 - Max. 16 changeover contact
- 24 V - contacts:
 - Max. 32 NC contact
 - Max. 32 NO contact
 - Max. 32 2-conductor changeover contact
 - Max. 16 changeover contact
- Initiators:
 - Max. 16 3-wire initiators
 - Max. 16 3-wire initiators
 - Max. 32 NAMUR initiators in accordance with DIN 19234
- Standard binary signals:
 - Max. 32 with levels in accordance with DIN 19240

Technical data

Table: Contact interrogation (48 V)

Supply voltage:	UVS = 43 ... 50 V (48 V typ.) for external powering of up to 60 V
Input resistance:	RE = 15.9 kOhm
Input rated current:	IRated = 3 mA
Signal input level:	UeHigh = 36 ... 60 V
With contact switching (non-redundant):	UeLow = 9.1 ... 15.2 V
With contact switching (redundant):	UeLow = 5.2 ... 8.7 V
High / Low - threshold	UH/L = 21 V

Table: Contact interrogation (24 V)

Supply voltage:	UVS = 20.4... 28.8V (24 V typ.)
Input resistance:	RE = 5.8 kOhm
Input rated current:	IRated = 4.2mA
Signal input level:	UeHigh = 20.4... 28.8V
With contact switching (non-redundant):	UeLow = 3.9 ... 5 V
With contact switching (redundant):	UeLow = 2.1 ... 2.7 V
High / Low - threshold:	UH/L = 8.4 V

Table: 3 or 4-wire proximity switch (24 V)

Supply voltage:	UVS = 20.4 ... 28.8 V (24 V typ.)
Input resistance:	RE = 5.8 kOhm
Input rated current:	IRated = 4.2 mA
Signal input level (-High-):	UeHigh = 13 ... 35 V
Signal input level (-Low-):	UeLow = -3 ... +5 V (neg. voltages only for IE ≤ 15 mA)
High / Low - threshold:	UH/L = 8.5 V

Table: NAMUR initiators (8.2 V)

Supply voltage:	UVS = 8 ... 9 V (8.2 V typ.) (DIN 19234)
Input resistance:	RE = 1 kOhm
Input rated current:	IRated = 3 mA
Signal input level (-High-):	IeHigh = 2.2 ... 6.5 mA
Signal input level (-Low-):	IeLow = 0.4 ... 1 mA
High / Low - threshold:	IH/L = 1.6 mA
Breaking threshold:	Ie breaking = 0.2 mA

Table: General module-related technical data

Galvanic separation:	Central
Measuring voltage:	50 Veff (in accordance with VDE 0110)
Voltage testing:	500 Veff (channels to the system)
Max. input voltage:	60 V DC (for contact 48 V) 30 VAC (for 3 / 4-wire initiators or contact 24 V or coupling of external system with 24 V level) 10 VDC (for NAMUR initiators)

Ambient temperature:	0 ... 50° C (Temperature for ventilation of the module in module sub-rack)
Voltage supply: -supply voltage: -fuse protection:	Uv1/Uv2 = 20 ... 33 V G-fusible element 5 * 20 3.15 A slow-acting T 3.15 H
Permissible overvoltages:	35 V (for 1 s) 45 V (for 10 ms)

Table: Current usage and power loss

	Voltage supply Uv:	Current supply Iv:	Power loss: (Coincidence factor 0.75)
NAMUR initiators:	24 V	200 mA	4.8 W
Contact (NC contact/NO contact 48 V):	24 V	330 mA	7.9 W
3/4-wire initiator:	24 V	500 mA	6.2 W

The supply current Iv of the module corresponds to the rated current.
(I_{rated} = Basic current + Load * Coincidence factor)

Ordering Information

Catalog No.								Description	
72130-4-	0	7	8	8	7	3	0	CBI 20 - Binary input module	
Additional Order Information									
								Former System Packet (Indicate Version)	BA-No. 601
Necessary Accessories:									
72199-4-	0	7	4	5	2	1	3	CI 100 Connection Unit, grey, Standard Version, Basic	
	0	7	4	5	2	0	3	CI 101 Connection Unit, grey, Standard Version, Redundant 8 TE	
66099-4-	0	7	6	4	5	4	5	A 701 Scanning Resistance for 24 V contact scan- ning	
	0	7	7	5	1	9	8	A 801 Scanning Resistance for 48 V contact scan- ning	
72199-4-	0	7	8	9	4	4	1	Cable Clamps	



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