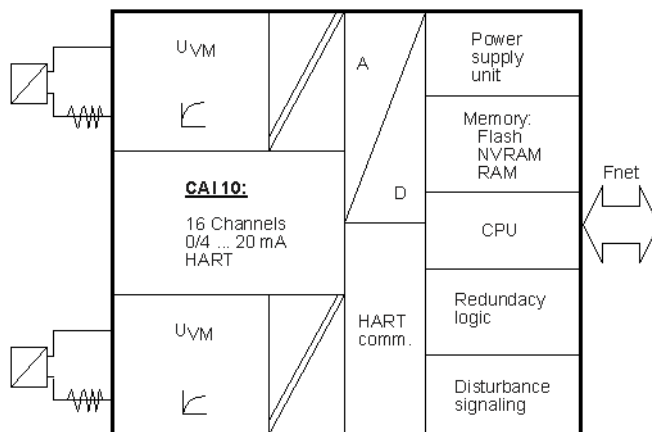


CAI 10 - Analog input module

Features / Application



- Configuration:
 - Max. 16 analog inputs for 2-wire transmitters (4 ... 20 mA) incl. transmitter supply (overload- and short circuit-proof) *or*
 - Max. 16 analog inputs for externally supplied 4-wire transmitters (0/4 ... 20 mA)
- Digital communication with transmitters to HART protocol (version 5.0 / 5.1)
- Channel-wise configuration of the inputs
- Channel-wise electrical isolation to SYMPHONY
- Module is capable of redundant operation
- Module monitoring
- Monitoring of connected transmitters (wire break, short-circuit)

The analog input module CAI 10 is used for acquisition of the following signals:

- Current signals (0/4 ... 20 mA) from conventional 2-wire or 4-wire transmitters.
- Current signals (0/4 ... 20 mA) from intelligent (HART) 2-wire or 4-wire transmitters.

Technical Data

	2-wire transmitter:	4-wire transmitter:
Analog input: - Nominal range: - Signal scope:	I = 4 ... 20 mA I = 3 ... 23.0 mA	I = 0/4 ... 20 mA I = 0/3 ... 23.0 mA I _{max} < 50 mA
Supply to transmitters - Voltage: - Rated current:	U ≥ 16.5 V (for U _{transmitter} and U _{wire}) I _{rat} = 23 mA	- / -
Short-circuit current of transmitter supply:	I _k = 23.6 ... 28.5 mA short-circuit-proof	- / -
A/D conversion - Type: - Linearity error: - Error limit:	12 bits (without preceding sign) ≤ 0.1 % ≤ 0.2 %	
Measuring resistor:	Imaginary measuring resistor R _M = 250 Ohm by transformer	
Influence of temperature on - Zero: - Amplification:	≤ 20 μA / 10 K ≤ 0.08 % / 10 K	
HART communication - Version: - Operating range:	5.0 / 5.1 I ≥ 3 mA	
Damping of input signal:	Low-pass; T = 100 ms (D = -30 dB at f = 50 Hz)	
Measurement updating:	< 40 ms, typical	
Electrical isolation:	Channel-wise	
Rating voltage:	50 V _{eff} (to VDE 0110)	
Voltage test:	500 V _{eff} (between channels and to system)	
Ambient temperature:	0 ... 50° C (temperature for cooling of module in rack)	
Voltage supply: - Supply voltage: - Fusing:	U _{v1} /U _{v2} = 20 ... 33 V DC Glass fuse link 5 * 20 3.15 A time-lag T 3.15 H	
Permissible supply overvoltages:	35 V (for t = 1 s) 45 V (for t = 10 ms)	
Current consumption:	I ₀ ≤ 230 mA (no load) I _{rat} = 580 mA at U _v = 24 V and simultaneity factor Eta = 0.75	
Power loss:	Max. 13.6 W at U _v = 24 V (for 16 4-wire transmitters) Max. 11.0 W at U _v = 24 V (for 16 2-wire transmitters)	

Ordering Information

Catalog No.								Description	
72120-4-	0	7	8	8	7	2	0	CAI 10 - Analog 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	
72199-4-	0	7	8	9	4	4	1	Cable Clamps	



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