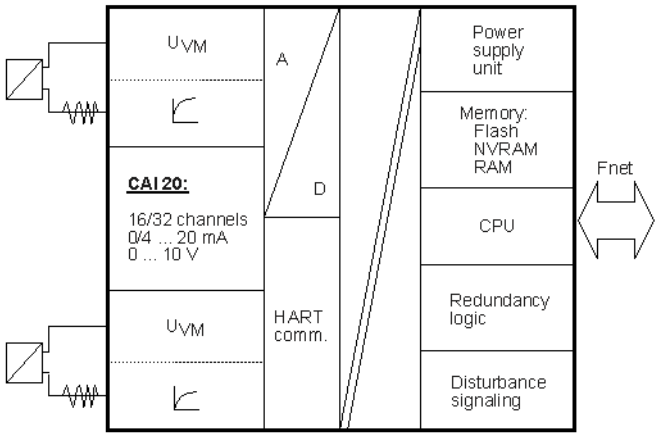
CAI 20 - Analog input module

Features / Application



- Configuration:
  - Max. 32 analog inputs for 2-wire transmitters (4 ... 20 mA) incl. transmitter supply (overload- and short circuit-proof) *or*
  - Max. 32 analog inputs for 4-wire transmitters (0/4 ... 20 mA) without binary release signals *or*
  - Max. 16 analog inputs for 4-wire transmitters (0/4 ... 20 mA) with binary release signals *or*
  - Max. 32 analog inputs for voltages (0 ... 10 V) *or*
  - Digital communication with max. 32 actuators of type "Contrac"
- Digital communication with transmitters to HART protocol (version 5.0 / 5.1)
- Configuration of the inputs in four groups each with eight (four) channels
- Common 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 20 is used for acquisition of the following signals:

- Current signals (0/4 ... 20 mA) from conventional and intelligent 2-wire or 4-wire (HART) transmitters.
- Binary release signals of 4-wire transmitters
- Voltages (0 ... 10 V)

Technical Data

	Measuring range 0/4 ... 20 mA:	**Measuring range 0 ... 10 V:**
Analog input: - Nominal range: - Signal scope:	 I = 0/4 ... 20 mA I = 0 ... 22.5 mA	 U = 0 ... 10 V U = 0 ... 11.5 V
A/D conversion - Type: - Linearity error: - Zero error: - Amplification error:	 12 bits (without preceding sign) <= 6 µA <= 12 µA <= 0.1 %	 12 bits (without preceding sign) <= 3 mV <= 6 mV <= 0.1 %
Measuring resistor	R = 250 Ohm	- / -
Influence of temperature on - Zero: - Amplification:	 <= 4 µA / 10 K <= 0.08 % / 10 K	 <= 2 mV / 10 K <= 0.08 % / 10 K
Supply to transmitters - Voltage: - Rated current: - Short-circuit current:	 U >= 23 V Irat = 25 mA Ik = 38 mA; short-circuit-proof	- / -
Binary inputs (for release signals) - L signal (low): - H signal (high): - Input current:	 U = -3 ... +5 V U = +12 ... 35 V I = 0.75 mA, typical	- / -
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:	Group-wise (per termination unit)	
Rating voltage:	50 Veff (to VDE 0110)	
Voltage test:	500 Veff (to system)	
Ambient temperature:	0 ... 50 °C (temperature for cooling of module in rack)	
Voltage supply: - Supply voltage: - Fusing:	 Uv1/Uv2 = 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 - Transmitter supply off: - Transmitter supply on:	 I = 195 mA at Uv = 24 V Irat = 865 mA at Uv = 24 V and simultaneity factor Eta = 0.75	
Power loss:	Max. 11 W at Uv = 24 V	

Ordering Information

Catalog No.								Description	
72122-4-	0	7	8	8	7	2	2	CAI 20 - 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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Subject to technical changes

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