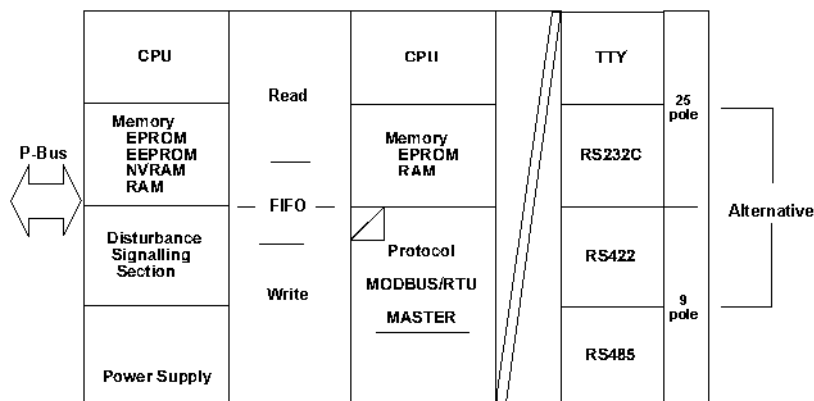


CCF 10 - Coupling of external systems

Features

- Data exchange with external systems via Modbus RTU protocol (master);
 Supported function codes: FC 1, FC 2, FC 3, FC 4, FC 5, FC 6, FC 15, FC 16 and FC 8
- Hardware interfaces (optional): RS 422, RS 485, RS 232, TTY
- Baud rates: 300, 600, 1200, 2400, 4800, 9600, 19200
- Number of inputs: 230 (buffer addresses: 0 ... 229)
- Number of outputs: 90 (buffer addresses: 700 ... 789)



Technical Data

RS 422 / RS 485:	
Interface design:	EIA-Standard RS 485
1. Signal input level (differential voltage between RA/RB): 2. Common-mode voltage: 3. Input resistance:	1. $U_{Ess} > 200 \text{ mV}$ 2. $U_{Com} = -7 \dots +12 \text{ V}$ 3. $R_E = 12 \text{ k}\Omega$
1. Signal output level (differential voltage between TA/TB, CA/CB): 2. Signal output current: 3. Load resistance: 4. Short-circuit current:	1. $U_{ASS} = 1.5 \text{ V} \dots 5 \text{ V}$; 2.5 V typical 2. $I_A > 60 \text{ mA}$, short-circuit proof and overload-proof 3. $R_A > 54 \text{ }\Omega$ 4. $I_K < 250 \text{ mA}$
Transmission medium:	2-pair twisted, shielded cable
Bus length at 9.6 kBd:	< 1000 m
VP voltage for connection to draw resistors	+ 5 V / 10 mA (decoupled and short-circuit-proof)
Operation of RS 422 port:	Half-duplex
RS 232C	
Interface design:	DIN 66 020 / V.24 / EIA standard RS 232C
1. Signal input level against GND 2. Signal input current: 3. Input resistance: 4. Input capacity:	1. $U_E (\text{pos.}) = +3 \dots +15 \text{ V}$; $U_E (\text{neg.}) = -3 \dots -15 \text{ V}$ 2. $I_E = 0.75 \dots 3.75 \text{ mA}$ 3. $R_E = 6.8 \text{ k}\Omega$ 4. $C_E < 0.1 \text{ nF}$
1. Signal output level (with 12 V supply) 2. Signal output current: 3. No-load voltage: 4. Short-circuit current: 5. Load resistance: 6. Load capacity:	1. $U_A (\text{pos.}) = +9 \text{ V typ. } (+6 \text{ V} \dots +12 \text{ V})$; $U_A (\text{neg.}) = -9 \text{ V typ. } (-6 \text{ V} \dots -12 \text{ V})$ 2. $ I_A < 3 \text{ mA}$ (short-circuit proof and overload-proof) 3. $ U_A < 12 \text{ V}$ 4. $I_K < 25 \text{ mA}$ 5. $R_A = 3 \text{ k}\Omega \dots 7 \text{ k}\Omega$ 6. $C_A < 2.5 \text{ nF}$
Transmission medium:	2-pair twisted, shielded cable
Distance at 9.6 kBd:	< 50 m
TTY / 20 mA	
1. Constant current source 2. No-load voltage:	1. $I_{K1} = 20 \text{ mA}$ 2. < 24 V
1. Signal input level (receive loop): 2. Voltage drop:	1. 1-signal: $I_E(1) = 12 \dots 30 \text{ mA}$ 0-signal: $I_E(0) = 0 \dots 3 \text{ mA}$ 2. $U_E < 3 \text{ V}$
1. Signal output level (transmit loop): 2. Voltage drop on transmit transistor: 3. No-load voltage of internal current source:	1. 1-signal: $I_A(1) = I_K$ (20 mA & plusmn; 15 %) 0-signal: $I_A(0) < 2 \text{ mA}$ 2. $U_A < 2.7 \text{ V}$ 3. < 24 V
Distance at 9.6 kBd	
Electrical isolation:	All interfaces (test voltage 1500V)
Maximum baud rate	19200 Bd
General data	
Ambient temperature:	0 ... 70 °C

1. Supply voltage: 2. Fusing:	1. $U_v = 20 \dots 33 \text{ V}$ 2. Glass fuse link 5 * 20 3.15 A medium time-lag M3.15E
Current consumption:	260 mA typical + interface load
Power loss:	6.24 W typ + 0.4W (TTY) + 0.12 W (RS232) + 0.2 W (RS485/RS422)

Ordering Information

Catalog No.								Description	
73113-4-	0	7	8	8	7	1	3	CCF 10 - Coupling of external systems	
Additional Order Information									
								Former System Packet (Indicate Version)	BA-No. 601

ABB Hartmann & Braun

Industriestraße 28
65729 Eschborn
Tel. (06196) 800-0
Fax (06196) 800-11 19

Höseler Platz 2
42567 Heiligenhaus
Tel. (0 20 56) 12- 0
Fax (0 20 56) 12- 56 79

Kohlstraße 4
32425 Minden
Tel. (05 71) 830- 0
Fax (05 71) 830- 11 05

ABB Automation Products