

General Specifications

Model NC230 Ao/CC-Link Converter

GS 77P01E01-01E

■ General

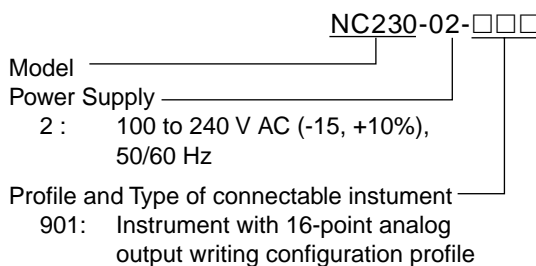
The Model NC230 Ao/CC-Link converter receives input of digital values (0 to 10000) from MELSEC (Mitsubishi Electric Corporation's sequencer) via the CC-Link, and converts them to 16* (1 to 5 V DC) analog output signals.

The analog output signals can be coupled with Yokogawa M&C's signal converter-the JUXTA D Series—via a dedicated cable. The NC230 is designed for either wall mounting or DIN-rail mounting.

*: Up to 16 JUXTA D series converter can be used.



■ Model and Suffix Codes



User-defined optional feature:

The 1 to 5 V write-in scale can be user-defined within the range of -30000 to 30000 when ordering. No user definition results in the default range of 0 to 10000.

■ Hardware Specifications

- Construction: 14-pin plug-in converter designed for wall or DIN-rail mounting
- Material: ABS resin for casing
- Weight: Approx. 380 g (including a 110 g socket)
- Analog output side: 16 points of 1 to 5 V signal, connector
- I/O on MELSEC side: CC-Link front-panel connector
- LED indicator: RDY, RUN, ERR, SD and RD
- Power supply: 100 to 240 V AC (-15%/+10%), 50/60 Hz
- Insulation resistance: 100 MΩ min. at 500 V DC between any two terminals among the NC220 output, CC-Link output terminals, power supply and grounding terminals
- Withstand voltage: 2000 V AC for 1 minute between any two terminals among (the NC220 output or CC-Link output) terminals, power supply and grounding terminals; and 1000 V AC for 1 minute between output and CC-Link output terminals.
- Power consumption: Approx. 3.7 VA (100 V AC), Approx. 5.8 VA (240 V AC)

■ Output Specifications

- Accuracy: ±0.1% of full scale (under standard operating conditions)
- Write-in count: 0 to 10000 (The scale can be user-defined within the range of -30000 to 30000 when ordering.)
- Output cycle: Approx. 250 ms/16 outputs

■ CC-Link Specifications

- Communication speed setting: 156k, 625 kbps, 2.5M, 5M or 10Mbps set with Rotary switch
- remote station number setting: 1 to 61, set with Rotary switch
- Number of stations occupied: 4
- Transmission speed/distance: The available overall distance of transmission differs depending on the transmission speed, as shown below:
 - 156 kbps : up to 1200 m
 - 625 kbps : up to 600 m
 - 2.5 Mbps : up to 200 m
 - 5 Mbps : up to 150 m
 - 10 Mbps : up to 100 m

■ Environmental Requirements

- Normal operating conditions:
 - Ambient temperature range: 0 to 50°C
 - Temperature change: 10°C/h max.
 - Ambient humidity range: 5 to 90% RH (no condensation)
 - Altitude of installation: 2000 m max.
- Transport/storage conditions:
 - Temperature range: -40 to 70°C
 - Ambient humidity range: 5 to 95% RH (no condensation)
- Effect of ambient temperature change:
 - Voltage output: ±0.2% of full scale max. per 10°C
- Effect of supply voltage fluctuation (within rated supply voltage range):
 - Voltage output: ±0.1% of full scale max.

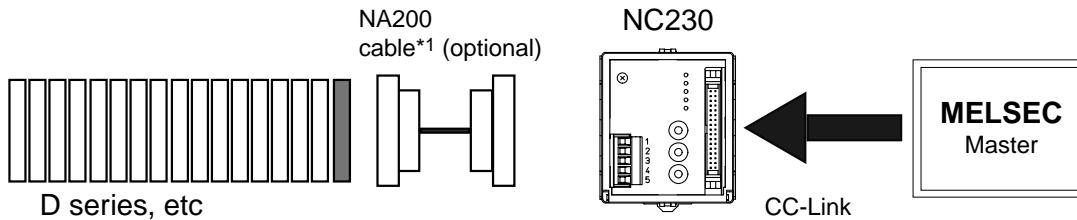
I/O Configuration Profile

Number of stations occupied: 4

Remote registers

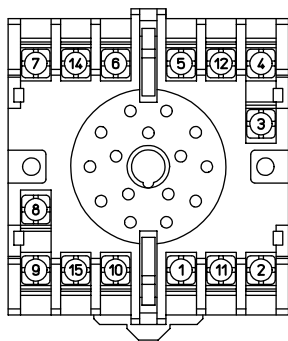
		Remote → Master		Master → Remote		
		Address	Contents	Address	Contents	
← No.1	Output 1-5V	RWr n+0		RWw m+0	No. 1: Output setting	CC-Link Station number setting 1 to 61 Transmission speed setting 0: 156 kbps 1: 625 kbps 2: 2.5 Mbps 3: 5 Mbps 4: 10 Mbps
← No.2	Output 1-5V	RWr n+1		RWw m+1	No. 2: Output setting	
← No.3	Output 1-5V	RWr n+2		RWw m+2	No. 3: Output setting	
← No.4	Output 1-5V	RWr n+3		RWw m+3	No. 4: Output setting	
← No.5	Output 1-5V	RWr n+4		RWw m+4	No. 5: Output setting	
← No.6	Output 1-5V	RWr n+5		RWw m+5	No. 6: Output setting	
← No.7	Output 1-5V	RWr n+6		RWw m+6	No. 7: Output setting	
← No.8	Output 1-5V	RWr n+7		RWw m+7	No. 8: Output setting	
← No.9	Output 1-5V	RWr n+8		RWw m+8	No. 9: Output setting	
← No.10	Output 1-5V	RWr n+9		RWw m+9	No.10: Output setting	
← No.11	Output 1-5V	RWr n+A		RWw m+A	No.11: Output setting	
← No.12	Output 1-5V	RWr n+B		RWw m+B	No.12: Output setting	
← No.13	Output 1-5V	RWr n+C		RWw m+C	No.13: Output setting	
← No.14	Output 1-5V	RWr n+D		RWw m+D	No.14: Output setting	
← No.15	Output 1-5V	RWr n+E		RWw m+E	No.15: Output setting	
← No.16	Output 1-5V	RWr n+F		RWw m+F	No.16: Output setting	

Communication Wiring Diagram



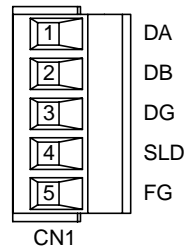
*1 See GS 77P01D31-01E.

Terminal Arrangement



Terminal No.	Power Supply Signal
7	L
8	⏚
14	N

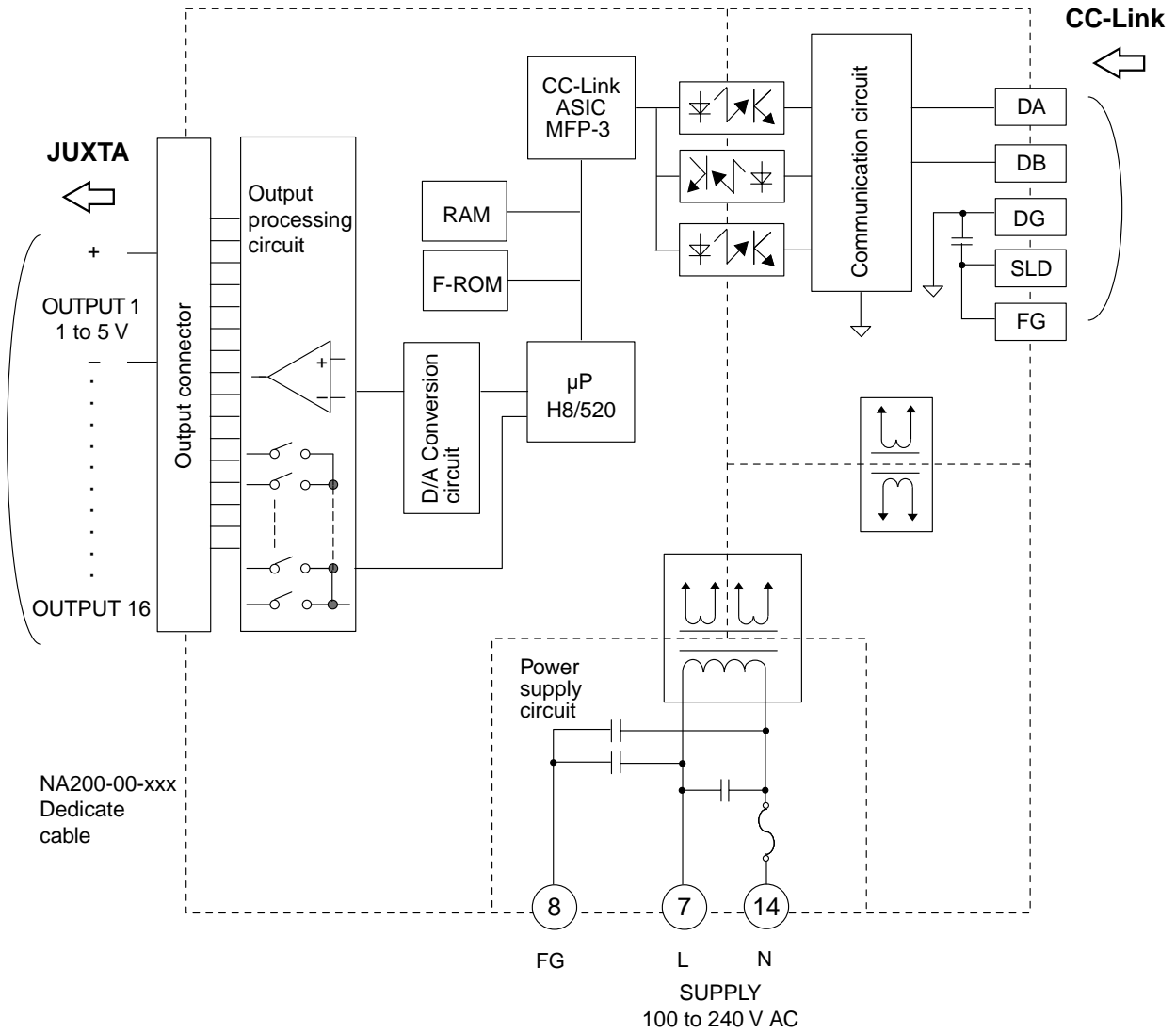
All other terminals are unusable.



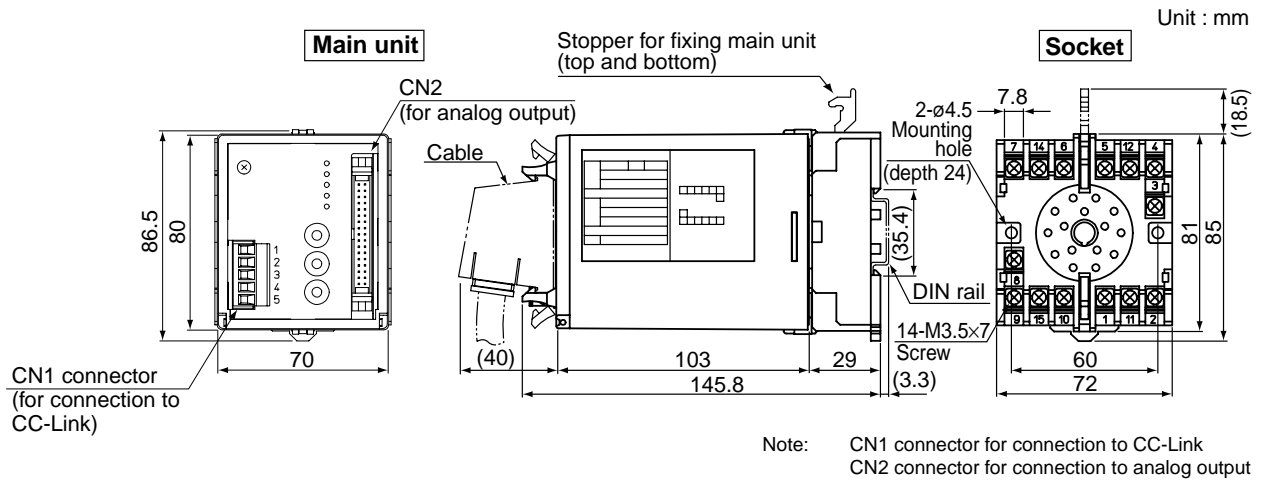
CN1 Connector Assignments

Terminal No.	CC-Link Signal Name
1	DA
2	DB
3	DG
4	SLD
5	FG

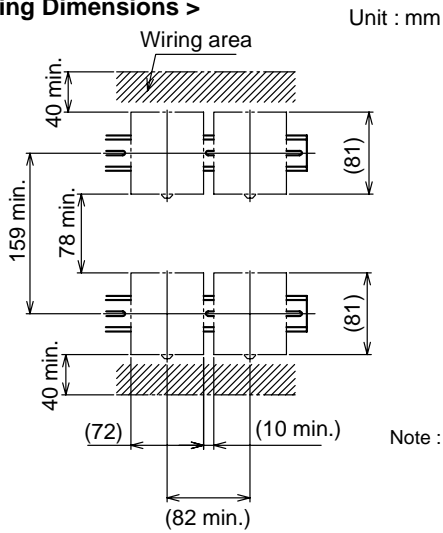
■ Block Diagram



■ Dimensions



< Mounting Dimensions >



Note : A minimum spacing of 10 mm is required between NC230 converters for close, side-by-side mounting. No spacing is required, however, if the converters are rated for a 100 to 120 V AC supply voltage range.