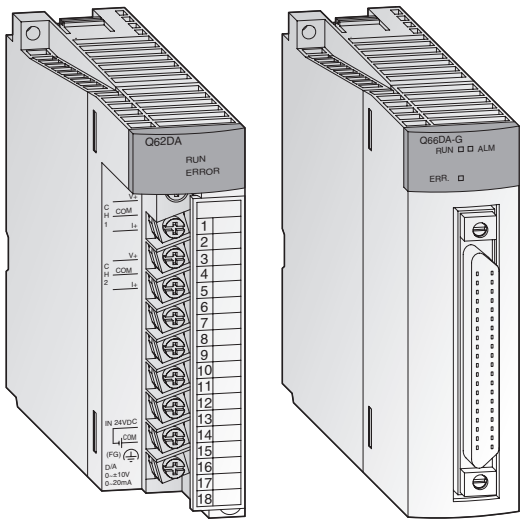
■ Analog Output Modules



Output of analog control signals

The analog output modules convert digital values predetermined by the CPU into an analog current or voltage signal. For example, frequency inverters, valves or slide valves are controlled by means of these signals.

The functionality of a HART Master station is integrated in the ME1AD8HAI-Q. It can communicate with up to 8 HART compatible devices.

Special features:

- Up to 8 channels per module (Q68DA□) and up to 256 channels per system
- Resolution of 0.333 mV and 0.83 µA
- Conversion time of 80 µs/channel
- Potential isolation between process and control by means of an optocoupler is a standard feature. Additional potential isolation between the channels for the Q62DANQ, 62DAN-FGQ, 68DAVN and Q68DAIN.
- Disconnection detection function that monitors the output values by means of re-conversion and limit exceeding function (Q62DAN-FG only)
- The modules are provided with a removable terminal block fastened with screws.

Specifications		Q62DAN	Q62DA-FG	Q64DAN	Q66DA-G	Q68DAVN	Q68DAIN	ME1DA6HAI-Q
Output points		2	2	4	6	8	8	6
Digital input		-4096–+4095 -12288–+12287 -16384–+16383	-4096–+4095 -12288–+12287 -16384–+16383	-4096–+4095 -12288–+12287 -16384–+16383	-4096–+4095 -12288–+12287 -16384–+16383	-4096–+4095 -12288–+12287 -16384–+16383	-4096–+4095 -12288–+12287 -16384–+16383	0–28000 -32768–+32767
Analog output		-10 V DC–+10 V DC (0 mA–+20 mA DC)	-10 V DC–+10 V DC (0 mA–+20 mA DC)	-10 V DC–+10 V DC (0 mA–+20 mA DC)	-12 V DC–+12 V DC (0 mA–+22 mA DC)	-10 V DC– +10 V DC	0 mA–+20 mA DC	0/4 mA–+20 mA DC
Load resistance	Voltage output	1 kΩ–1 MΩ	1 kΩ–1 MΩ	1 kΩ–1 MΩ	1 kΩ–1 MΩ	1 kW–1 MΩ	—	—
	Current output	0–600 Ω	0–600 Ω	0–600 Ω	0–600 Ω	—	0–600 Ω	50–600 Ω
Max. outputs	Voltage V	±12	±13	±12	±13	±12	—	—
	Current mA	21	23	21	23	—	21	22
Voltage output ①								
I/O characteristics	Voltage output	0–5 V	0–5 V	1–5 V	-10–+10 V	-10–+10 V	user defined	—
	Digital Input	0–4000	0–12000	0–12000	-4000–4000	-16000–16000	-4000–4000	—
Max. resolution		1.25 mV	0.416 mV	0.333 mV	2.5 mV	0.625 mV	0.75 mV	—
Current output ②								
I/O characteristics	Current output	0–20 mA	0–20 mA	4–20 mA	4–20 mA	user defined	user defined	0–20 mA
	Digital Input	0–4000	0–12000	0–4000	0–12000	-4000–4000	-12000–12000	0–28000
Max. resolution		5 µA	4 µA	1.66 µA	1.33 µA	1.5 µA	0.83 µA	571 nA
Overall accuracy		± 0.3 % (0–55 °C); ± 0.1 % (20–30 °C)						
Max. conversion time		80 µs/channel	10 ms/2 channels	80 µs/channel	6 ms/channel	80 µs/channel	80 µs/channel	70 ms
Insulation method		Photocoupler insulation between output terminals and PLC power	Each output is photocoupler insulated between each other and against the PLC power	Photocoupler insulation between output terminals and PLC power	Transformer insulation between the output channels and between the channels and PLC power.	Photocoupler insulation between output terminals and PLC power		
I/O points		16	16	16	16	16	16	32
Connection terminal		18-point removable terminal block with screws			40-pin connector at the front	18-point removable terminal block with screws		
Applicable wire size	mm^2	0.3–0.75	0.3–0.75	0.3–0.75	0.3	0.3–0.75	0.3–0.75	According to HART specification
Internal power consumption (5 V DC)	mA	330	370	340	620	390	380	320
Weight	kg	0.19	0.20	0.19	0.22	0.18	0.18	0.19
Dimensions (WxHxD)	mm	27.4x98x90	27.4x98x90	27.4x98x90	27.4x102x130	27.4x98x90	27.4x98x90	27.4x98x90
Order information	Art. no.	200689	145037	200690	204677	200691	200692	236649

① Values are valid for all modules except for Q68DAIN;
② Values are valid for all modules except for Q68DAVN