

# DAC-8 for imc CRONOS-PL/-SL/compact

Datasheet version 3.2

## 8 Analog Control Signals



CRPL/DAC-8

**DAC-8**, which enables analog output of up to 8 analog values, is a modular plug-in for imc CRONOS-PL/*compact* and available as a configuration module for CRONOS-SL. The outputs can be defined as the results of calculations performed by Online FAMOS on data from combinations of measurement channels.

### Important features include:

- $\pm 10$  V level at max.  $\pm 10$  mA driver strength
- 16-bit resolution
- ensured startup level 0 V without undefined transient states
- short-circuit proof against ground

Order code:	Article number	Remarks
<b>CRPL/DAC-8</b>	1080015	for installation in an imc CRONOS-PL housing
<b>CRPL/DAC-8-ET</b>	1081013	version in extended temperature range
<b>CRSL/DAC-8-D</b>	1180041	for installation in an imc CRONOS-SL housing with DSUB connection terminals
<b>CRSL/DAC-8-BNC</b>	1180042	for installation in an imc CRONOS-SL housing with BNC connection terminals
<b>CRC/DAC-8</b>	1170069	for installation in an imc CRONOS <i>compact</i> housing
<b>CRC/DAC-8-ET</b>	1171041	version in extended temperature range
<b>CRC/DAC-8-R</b>	1170130	for installation in an imc CRONOS <i>compact</i> <b>RACK</b>
<b>CRC/DAC-8-R-ET</b>	1171089	version in extended temperature range

### Physical structure:

- Plug-in module for imc CRONOS-PL/*compact* systems, occupying one slot.

**Terminal Connections:**

- 2x DSUB-15 terminals for 4-channel groups
- 8x BNC terminals (only with CRSL/DAC-8-BNC)

**Included accessories for imc CRONOS-PL/compact:****Connection terminals:**

- 2x **ACC/DSUB-DAC-4**, 15-pin DSUB terminals for 4-channel groups

**Included accessories for imc CRONOS-SL:**

-----

**Power supply:**

- provided by imc CRONOS-PL/-SL/compact unit
- Additional power consumption due to installed module: 2.5 W

**Operating conditions:**

- The module varieties' respective operating conditions (with or without an extended temperature range) depend on the corresponding housing type.

**Measurement properties:**

- Sampling rates adjustable in steps of 1, 2, 5 (channel individual)
- 50 kHz bandwidth
- 16-bit resolution (with internal 24-bit processing)

**Installed software:**

- The module is fully supported by the imc CRONOS-PL/-SL/compact operating software. The entire functionality, particularly the parameterization, storage and online computations is provided.

**Data storage:**

- Output channels cannot be stored by the software, however, the virtual channels used to calculate the output data can be stored.

**Remarks:**

- For having the DAC-8 operate in dependence upon values measured, or for program-driven control, the personal analyzer Online FAMOS is required. With imc CRONOS-PL-3 and larger models, this doesn't come standard but optionally.

**Optional accessories:****Connection terminals:**

- **ACC/DSUB-DAC4-IP65**, 15-pin DSUB-clamp terminal adapted to imc CRONOS-SL for each bank of 4 analog output channels

## DAC-8 analog outputs

### Technical Datasheet version 3.2

Parameter	Value (typ./ min.max.)		Remarks
Channel count	8		analog
Output level	±10 V		
Terminal connections	2x DSUB-15 / 8 channels or 8x BNC		ACC/DSUB-DAC4 (-IP65) with CRSL/DAC-8-BNC
Load current	±10 mA max.		
Resolution	16-bit		
Linearity	max. 4 LSB 14-bit no missing codes		
Max. output frequency	50 kHz		
Analog bandwidth	50 kHz		-3 dB, low-pass 2nd order
Accuracy	±4 LSB (16-bit)		25°C
Offset error	<10 mV	<17 mV	25°C
Offset drift	0.06 mV / K		
Overall offset error		<20 mV	over entire temperature range
Gain error	<0.29 %		25°C
Gain drift	25 ppm / K		
Total gain error		<0.8 %	over entire temperature range