

# SENSOR-SUPPLY module with selectable Voltage Output

## Non-isolated Module for Sensor Supply with Selectable Voltage Output

Version 3.1



The module provides a sensor supply voltage which is adjustable by a selection switch. The maximum available power is 3 W. The voltages provided are short-circuit-proof. Upon request there is also an isolated variant available.

### Physical structure

- Retrofitted plug-in for imc CRONOS-PL/*compact* systems, occupying one slot

### Interconnections

- 2x 4 mm banana jack at imc CRONOS-PL/*compact*

| Order code:        | Article # | Remarks                                                                                        |
|--------------------|-----------|------------------------------------------------------------------------------------------------|
| CRPL/SEN-SUPPLY    | 1080096   | for installation in an imc CRONOS-PL housing                                                   |
| CRPL/SEN-SUPPLY-ET | 1081061   | for the module in the extended temperature range (operating temperature -40 °C to +85 °C)      |
| CRC/SEN-SUPPLY     | 1170069   | for installation in an imc CRONOS <i>compact</i> housing                                       |
| CRC/SEN-SUPPLY-ET  | 1171045   | for installation in an imc CRONOS <i>compact</i> -ET housing in the extended temperature range |

### Power supply

- provided by the imc CRONOS-PL/*compact* unit
- Additional power consumption due to installed module: 4,5 W

### Operating conditions

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

### Special models and options:

- Upon request also available as an internal amplifier expansion for sensor supply. The terminal for the voltage is then at the amplifier DSUB jack. Other limitations apply (5 ranges;  $\pm 15$  V as optional substitute for +15 V), refer to the amplifier's spec sheet.

## Sensor SUPPLY module

| Parameter                  | Value (typ./ max.)  |         |          | Remarks                                                                                    |
|----------------------------|---------------------|---------|----------|--------------------------------------------------------------------------------------------|
| Configuration options      | 7 adjustable ranges |         |          |                                                                                            |
| Output voltage             | Voltage             | Current | Netpower |                                                                                            |
|                            | +2,5 V              | 580 mA  | 1,5 W    |                                                                                            |
|                            | +5,0 V              | 580 mA  | 2,9 W    |                                                                                            |
|                            | +7,5 V              | 400 mA  | 3,0 W    |                                                                                            |
|                            | +10 V               | 300 mA  | 3,0 W    |                                                                                            |
|                            | +12 V               | 250 mA  | 3,0 W    |                                                                                            |
|                            | +15 V               | 200 mA  | 3,0 W    |                                                                                            |
|                            | +24 V               | 120 mA  | 2,9 W    |                                                                                            |
| Isolation<br>Standard:     | non isolated        |         |          | output to case (CHASSIS)                                                                   |
| option, upon request:      | isolated            |         |          | Nominal rating: 50 V, Test voltage (10 sec.): 300 V, not available with option $\pm 15$ V. |
| Short-circuit protection   | unlimited duration  |         |          | to output voltage reference ground                                                         |
| Accuracy of output voltage |                     |         |          | at terminals, no load                                                                      |
|                            | <0,25% (typ.)       |         |          | 25°C                                                                                       |
|                            | <0,5% (max.)        |         |          | 25°C                                                                                       |
|                            | <0,9% (max ).       |         |          | over entire temperature range                                                              |
| Efficiency                 | typ. 72%            |         |          | 10 V to 24 V none isolated                                                                 |
|                            | typ. 66%            |         |          | 5 V                                                                                        |
|                            | typ. 55%            |         |          | 10 V to 24 V isolated                                                                      |
|                            | typ. 50%            |         |          | 5 V                                                                                        |
| Max. capacitive load       | >4000 $\mu$ F       |         |          | 2,5 V to 10 V                                                                              |
|                            | >1000 $\mu$ F       |         |          | 12 V, 15 V                                                                                 |
|                            | >300 $\mu$ F        |         |          | 24 V                                                                                       |