

DEVICE SPECIFICATIONS
 Analog Devices: 18094 (Compressor Controls: CM-1-439)
 (NOTES: ALL SPECIFICATIONS AT VS=+24v, Ta=+25C,
 BASED on % of 4 V output span where applicable)
 January 1999

<u>PARAMETER</u>	<u>SPECIFICATION</u>	<u>NOTES</u>
INPUT RANGE	4-20 mA	
OUTPUT RANGE	4-20 mA	
ACCURACY	0.1% max	
NON-LINEARITY	0.02% max	BSL
OPEN INPUT DETECTION	Zin > 20Kohms in < 1Ms	
SPAN TEMPCO	25ppm/C	
OFFSET TEMPCO	1uV/C	
LOAD RESISTANCE	0-850 ohms	(Dependent on power supply)
MAXIMUM OUTPUT	30 mA	
NOISE:		
PEAK @ 5MHz	160 uA	
RMS @ 10Hz-100KHz	4 uA	
PEAK @ 0.1Hz-10 Hz	25 nA	(Referred to input)
NOMINAL -3dB BW	100Hz	
RESPONSE TIME	3mS	0-90%
COMMON MODE VOLTAGE	1500Vrms	Continuous
CMRR	110dB	50/60 Hz
POWER SUPPLY:		
SENSITIVITY	0.006%/Vs	
RANGE	14-35 VDC	
Iq	60mA	
INPUT PROTECTION	35Vdc	Continuous
OUTPUT PROTECTION	240Vrms	Continuous
OPERATING TEMP RANGE	-40C-+85C	
INPUT TRANSIENT	IEEE-STD-472 IEC-255-4 CLASS II	
ESD	IEC-801-2 LEVEL II	
RFI	<0.05%max	150MHz/440MHz @3feet
HUMIDITY	90%	Non-Condensing
WEIGHT	60 gms	

CM-1- 439 Isolated, Process Current Output Module¹

General Description

The CM series modules are compact modular isolated signal conditioners. The modules are designed for applications in the process control industry. All modules are single channel output devices. The module is packaged in a compact 2.1" x 1.7" x 0.6" (54 mm x 42 mm x 14 mm) durable plastic case.

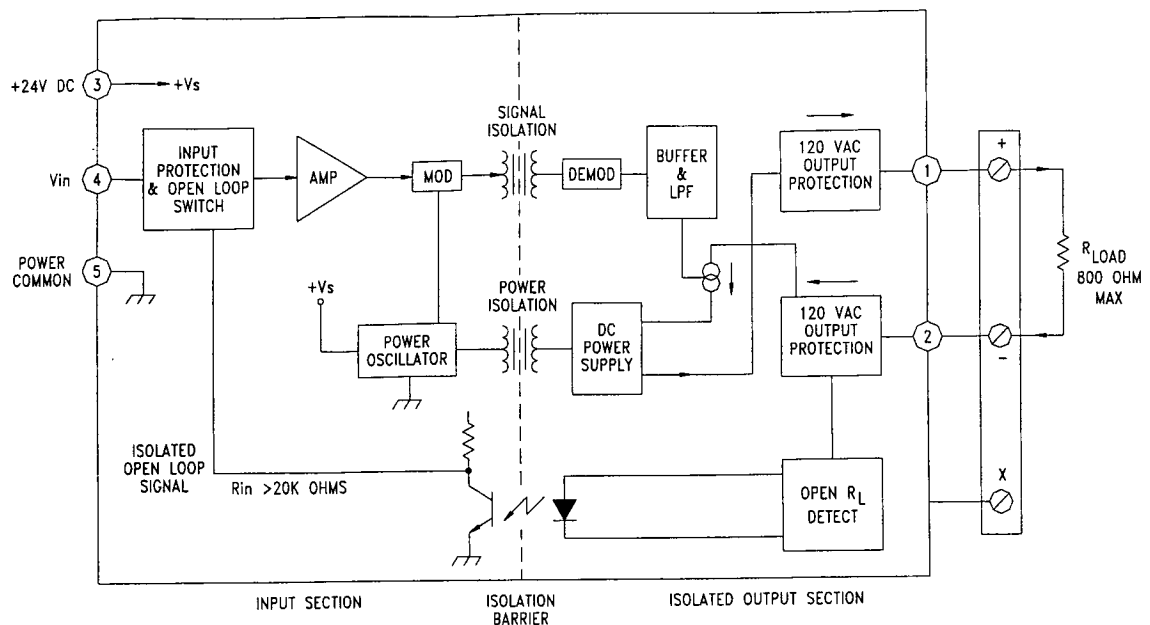
All output pins are fully protected against 120 Vrms fault voltages.

The module is mix-and-match and hot-swappable with other modules, so it can be inserted or removed from any socket in the same FTA-43 without disturbing system power.

Isolated Current Output Module: CM-1-439

The CM-1-439 isolated current output module accepts a 4-20mA input signal and outputs an isolated 4-20mA signal. The module can drive resistive loads up to 800 Ohms.

When the output loop is opened the CM-1-439 will have an input impedance of >20Kohms. The input will go to high impedance state within 5mS of the output loop opening.



Types: Analog Devices: AD18094
Dataforth: SCM7B39-1257

¹ Preliminary draft of new analog conditioning modules (3/18/99)

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BASED on % of 4 V output span where applicable)

<u>PARAMETER</u>	<u>SPECIFICATION</u>	<u>NOTES</u>
INPUT RANGE	4-20 mA	
OUTPUT RANGE	4-20 mA	
ACCURACY	0.1% max	
NON-LINEARITY	0.02% max	BSL
OPEN INPUT DETECTION	Zin>20 Kohms in < 5Ms	
SPAN TEMPCO	25ppm/C	
OFFSET TEMPCO	1uV/C	
LOAD RESISTANCE	0-800 ohms	(Dependent on power supply)
MAXIMUM OUTPUT	30 mA	
NOISE:		
PEAK @ 5MHz	160 uA	
RMS @ 10Hz-100KHz	4 uA	
PEAK @ 0.1Hz-10 Hz	25 nA	(Referred to input)
NOMINAL -3dB BW	100Hz	
RESPONSE TIME	5mS	0-90%
COMMON MODE VOLTAGE	1500Vrms	Continuous
CMRR	110dB	50/60 Hz
POWER SUPPLY:		
SENSITIVITY	0.006%/V _s	
RANGE	18-35 VDC	
I _q	70mA	
INPUT PROTECTION	35VDC	Continuous
OUTPUT PROTECTION	120Vrms	Continuous
OPERATING TEMP RANGE	-40C to +85C	
INPUT TRANSIENT	IEEE-STD-472 IEC-255-4 CLASS II or IEEE-C37.90.1 1989	
ESD	IEC-801-2 LEVEL II or IEEE-C37.90.1 1989	
RFI	<0.5%max	27MHz,151MHz,432MHz@ 3 feet
HUMIDITY	90%	Non-Condensing
WEIGHT	60 gms	