



LED Digital | Analog Combination

Crompton Instruments model 007-DI features a combination of the traditional 250° 4 1/2" switchboard indicator with the trend indication plus the benefits of wide angle LED visibility. This rugged shock and vibration resistant design provides precision accuracy and instantaneous reading via the bright in-dial mounted 3 1/2" digit LED display.

Description

Model 007-DI digital analog indicators are ideal for all applications where moving pointer instruments are preferable to indicate trend with the simultaneous display of a high visibility precision LED readout for increased user interface.

The 007-DI is interchangeable with other analog and digital instruments designed to directly mount in to a standard ANSI-C39. 4 1/2" switchboard cut-out.

Available in side, center, or off-set zero versions, the 007-DI can accept AC and DC current and voltage inputs as well as a wide range of transducer outputs, making it suitable for a variety of other applications including low-load current, temperature, speed, Watt/VARS, percent and level.

Features

- Rugged shock and vibration resistant pivot and jewel design
- High accuracy LED display
- Wide selection of AC and DC inputs
- Maximum trend indication visibility
- Input isolation
- External decimal point selection option
- Interchangeable with 4 1/2" switchboard meters

Benefits

- Cost effective
- Meets all the requirement of ANSI-C39.1 (1981)
- IP54 (NEMA 3) protection
- Optional IP55 (NEMA 4) gasket
- Bump, shock and vibration proof
- Customized option and features

Applications

- Switchgear
- Distribution systems
- Generator sets
- Control panels
- Energy management
- Building management
- Utility power monitoring
- Process control
- Motor control

Specifications

Inputs	DC Voltage: 20mV-600V (1MΩ input impedance as standard) DC Current: 1mA-1A, 4 to 20mA (Voltage drop 200mV nominal) External shunt operation (50mV and 100mV) AC Voltage: 200mV-600V (1 kΩ /volt) AC Current: 1mA-999mA (Using internal shunt, voltage drop 200mV nominal) 1A, 2A, 5A and 10A using internal current transformer
Common mode rejection	=>80dB @ 50/60Hz
Overload	Voltage: x 1.2 continuous. x 1.5 for 10 seconds Current using internal CT: x 1.2 continuous. x 10 for 10 seconds
External power requirement	Standard: 120 and 240V 315% Optional: 480V 315% AC 40-60Hz
Burden	3VA @ 60Hz
DC	Standard: 12, 24, 48, 110 and 125V ±15%
Display analog	Long-scale moving coil. 250° deflection. Scale length 6.8" Response time less than 2.5 seconds
Display options	Center or offset zero. Scale plate in colors other than white Colored lines or segments on scale
Digital display	3 1/2 digit red LED. 7 segment (7.6mm, 0.3" high). Right hand decimal points. Polarity indication: positive / none. Negative / horizontal bar " - ". Update time (standard): 1 per second
Accuracy - analog	DC and AC ±1% of FSD (calibrated at 25°C)
Accuracy - digital	DC: ±0.05% of reading ±1 count ±100ppm of reading / °C max AC current: 0-1 Amp ±0.1% reading ±3 counts ±150ppm of reading / °C AC current: 0-10 amps 30.1% reading 310 counts 3150ppm of reading / °C (maximum) AC voltage: ±0.1% of reading ±3 counts ±150ppm of reading / °C (maximum) Zero ±1 count ±0.2 counts/°C (maximum), DC offset scale only. Warm-up time: 1 minute
Long term stability	±2 counts
Calibration check	Recommended 12 monthly intervals
Enclosure code	IP54 (optional IP55 using panel gasket)
Operational temperature	0 to 60°C (32° - 140° F)
Storage temperature	-20° to 60°C (-4° - 140° F)
Humidity	Up to 90% relative @ 55° C. Tests to BS2011 part 2DA
Isolation test voltage	2kV RMS 60Hz for 1 minute
Interference rejection	To IEEE STD472, ANSI C37 90A, SEN 361503, IEC 255-4

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Product Codes - AC Voltmeters - Direct Reading (40/70Hz)**

Digital accuracy $\pm 0.1\%$ ± 3 counts, analog accuracy $\pm 1\%$

Rating	Scaling*	Catalog number
200mV	0-200mV	007-DIWA-KAKA-C6-**
250mV	0-250mV	007-DIWA-KDKD-C6-**
500mV	0-500mV	007-DIWA-KMKM-C6-**
1V	0-1V	007-DIWA-LALA-C6-**
5V	0-5V	007-DIWA-LSLS-C6-**
10V	0-10V	007-DIWA-MTMT-C6-**
15V	0-15V	007-DIWA-NDND-C6-**
30V	0-30V	007-DIWA-NLNL-C6-**
150V	0-150V	007-DIWA-PZPZ-C6-**
250V	0-250V	007-DIWA-RSRS-C6-**
300V	0-300V	007-DIWA-RXRX-C6-**
500V	0-500V	007-DIWA-SFSF-C6-**
600V	0-600V	007-DIWA-SJSJ-C6-**

For connection diagrams, refer to Figure H.

Product Codes - AC Voltmeters Transformer Rated (40/70Hz)**

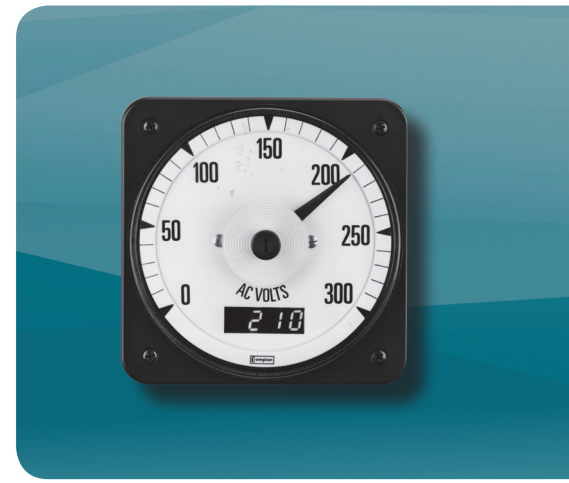
Rating	Scaling*	Catalog number
150V	0-300V	007-DIWA-PZRX-C6-**
150V	0-600V	007-DIWA-PZSJ-C6-**
150V	0-750V	007-DIWA-PZSM-C6-**
150V	0-3000V	007-DIWA-PZUA-C6-**
143V	0-5000V	007-DIWA-PTUJ-C6-**
150V	0-5250V	007-DIWA-PZUL-C6-**
150V	0-6000V	007-DIWA-PZUP-C6-**
150V	0-9000V	007-DIWA-PZUY-C6-**
150V	0-15kV	007-DIWA-PZWC-C6-**
150V	0-18kV	007-DIWA-PZWD-C6-**
150V	0-45kV	007-DIWA-PZWJ-C6-**
150V	0-60kV	007-DIWA-PZWL-C6-**

For connection diagrams, refer to Figure H.

* Other scalings are available.

** Specify power supply voltage according to power supply codes table located on page 22.

*** Case types 007 use 10-32 UNF terminals.



AC Voltmeter

Fig. G Models 007-DA2, 007-DAA
LCD Digital/Analog Meter

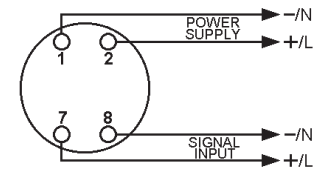
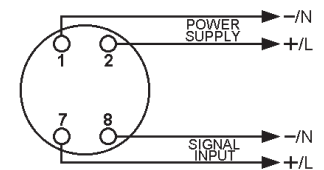


Fig. H Models 007-DI2, 007-DIA
007-DIB, 007-DIC, 007-DIN,
007-DIT, 007-DIV, 007-DIW
LED Digital/Analog Meter



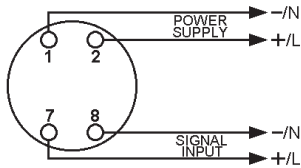
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Product Codes - AC Ammeters - Direct Reading (40/70Hz)***



AC Ammeter

Fig. I Models 007-DI2, 007-DIA, 007-DIB, 007-DIC, 007-DIN, 007-DIT, 007-DIV, 007-DIW
LED Digital/Analog Meter



For connection diagrams, refer to Figure I.

Rating	Scaling*	Catalog number
1A	0-1A	007-DIBA-LALA-C6-**
1.5A	0-1.5A	007-DIBA-LCLC-C6-**
2A	0-2A	007-DIBA-LELE-C6-**
3A	0-3A	007-DIBA-LJLJ-C6-**
5A	0-5A	007-DIBA-LSLS-C6-**
8A	0-8A	007-DIBA-MJMJ-C6-**
10A	0-10A	007-DIBA-MTMT-C6-**

* Other scalings are available.

** Specify power supply voltage according to power supply codes table located on page 22.

*** Case types 007 use 10-32 UNF terminals.

LED Digital | Analog Combination

Product Codes - AC Ammeters Transformer Rated (40/70Hz)

Digital accuracy $\pm 0.1\%$ ± 1 counts, analog accuracy $\pm 1\%$

Rating	Scaling*	Catalog number
5A	0-15A	007-DIBA-LSND-C6-**
5A	0-20A	007-DIBA-LSNG-C6-**
5A	0-25A	007-DIBA-LSNJ-C6-**
5A	0-30A	007-DIBA-LSNL-C6-**
5A	0-40A	007-DIBA-LSNP-C6-**
5A	0-50A	007-DIBA-LSNT-C6-**
5A	0-60A	007-DIBA-LSNW-C6-**
5A	0-75A	007-DIBA-LSPB-C6-**
5A	0-80A	007-DIBA-LSPD-C6-**
5A	0-100A	007-DIBA-LSPK-C6-**
5A	0-150A	007-DIBA-LSPZ-C6-**
5A	0-200A	007-DIBA-LSRL-C6-**
5A	0-250A	007-DIBA-LSRS-C6-**
5A	0-300A	007-DIBA-LSRX-C6-**
5A	0-400A	007-DIBA-LSSC-C6-**
5A	0-500A	007-DIBA-LSSF-C6-**
5A	0-600A	007-DIBA-LSSJ-C6-**
5A	0-750A	007-DIBA-LSSM-C6-**
5A	0-800A	007-DIBA-LSSN-C6-**
5A	0-1000A	007-DIBA-LSSS-C6-**
5A	0-1200A	007-DIBA-LSSU-C6-**
5A	0-1500A	007-DIBA-LSTC-C6-**
5A	0-1600A	007-DIBA-LSTE-C6-**

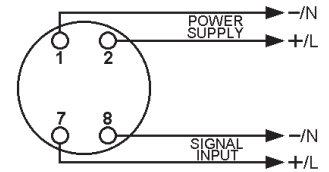
For connection diagrams, refer to Figure J.

- * Other scalings are available.
- ** Specify power supply voltage, according to power supply codes table located on page 22.



AC Ammeter

Fig. J Models 007-DI2, 007-DIA, 007-DIB, 007-DIC, 007-DIN, 007-DIT, 007-DIV, 007-DIW LED Digital/Analog Meter



LED Digital | Analog Combination

Product Codes - DC Voltmeters - Direct Reading

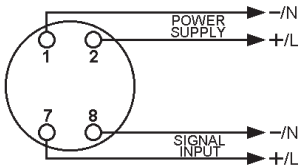
Digital accuracy $\pm 0.5\%$ ± 1 counts, analog accuracy $\pm 1\%$

Rating	Scaling*	Catalog number
200mV	0-200mV	007-DIVA-KAKA-**
250mV	0-250mV	007-DIVA-KDKD-**
500mV	0-500mV	007-DIVA-KMKM-**
1V	0-1V	007-DIVA-LALA-**
5V	0-5V	007-DIVA-LSLS-**
10V	0-10V	007-DIVA-MTMT-**
15V	0-15V	007-DIVA-NDND-**
30V	0-30V	007-DIVA-NLNL-**
50V	0-50V	007-DIVA-NTNT-**
75V	0-75V	007-DIVA-PBPB-**
80V	0-80V	007-DIVA-PDPD-**
150V	0-150V	007-DIVA-PZPZ-**
300V	0-300V	007-DIVA-RXRX-**
400V	0-400V	007-DIVA-SCSC-**
500V	0-500V	007-DIVA-SFSF-**
600V	0-600V	007-DIVA-SJSJ-**
150-0-150V	150-0-150V	007-DINA-RXRX-**
300-0-300V	300-0-300V	007-DINA-SJSJ-**
600-0-600V	600-0-600V	007-DINA-SUSU-**



DC Voltmeter

Fig. K Models 007-DI2, 007-DIA, 007-DIB, 007-DIC, 007-DIN, 007-DIT, 007-DIV, 007-DIW
LED Digital/Analog Meter



For connection diagrams, refer to Figure K.

* Other scalings are available.

** Specify power supply voltage, according to power supply codes table located on page 22.

LED Digital | Analog Combination

Product Codes - DC Ammeters - Shunt Rated

Digital accuracy $\pm 0.5\%$ ± 1 counts, analog accuracy $\pm 1\%$

Rating	Scaling*	Catalog number
50mV-4mA	Scaled to suit standard shunt ratings	007-DIAA-EY**-**
50-0-50mV-2-0-2mA		007-DICA-GB**-**
100-0-100mV		007-DICA-GM**-**
100-0-100mV-2-0-2mA		007-DICA-FM**-**

For connection diagram, refer to Figure L.

Product Codes - DC Ammeters - Suppressed Zero

Digital accuracy $\pm 0.5\%$ ± 1 counts, analog accuracy $\pm 1\%$

Rating	Scaling*	Catalog number
1-5mA	Scaled to suit standard shunt ratings	007-DIAA-GM**-**
4-20mA		007-DIAA-HG**-**
10-50mA		007-DIAA-HZ**-**

For connection diagram, refer to Figure L.

Product Codes - DC Ammeters - Direct Reading

Digital accuracy $\pm 0.5\%$ ± 1 counts, analog accuracy $\pm 1\%$

Rating	Scaling*	Catalog number
1mA	0-1mA	007-DIAA-FAFA**-**
2mA	0-2mA	007-DIAA-FGFG**-**
5mA	0-5mA	007-DIAA-FXFY**-**
10mA	0-10mA	007-DIAA-GZGZ**-**
20mA	0-20mA	007-DIAA-HFHF**-**
30mA	0-30mA	007-DIAA-HMHM**-**
50mA	0-50mA	007-DIAA-HYHY**-**
100mA	0-100mA	007-DIAA-JRJR**-**
200mA	0-200mA	007-DIAA-KAKA**-**
300mA	0-300mA	007-DIAA-KGKG**-**
500mA	0-500mA	007-DIAA-KMKM**-**
800mA	0-800mA	007-DIAA-KWKW**-**
1A	0-1A	007-DIAA-LALA**-**

For connection diagram, refer to Figure L.

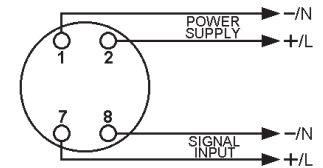
* Other scalings are available.

** Specify power supply voltage, according to power supply codes table located on page 22.



DC Ammeter

Fig. L Models 007-DI2, 007-DIA, 007-DIB, 007-DIC, 007-DIN, 007-DIT, 007-DIV, 007-DIW LED Digital/Analog Meter



Switchboard Meter Options

Product Codes - Power Supply

Power Supplies

A5-120 - 250V AC/DC	MU - 12V DC
PQ - 120V AC	BD - 24V DC
A2 - 12 - 48V DC	NR - 48V DC
	PR - 120V DC
	PS - 125V DC

Scale - Options

Options	Option code
Red or colored line or mark (specify position)	SL
Colored zones or segments (specify limits and color(s))	SZ
Customer user logo imprinted on dial	SM

Construction - Options

Options	Option code
Anti-glare window	BR
Polychloroprene panel gasket	MG

The suffix option code is added at the end of the complete part number.