

C1 Protector Controller

8 / 16 Channel Display & Alarm Controller

- ◆ Large display and flashing LEDs show values, bar-graph and trend data
- ◆ NEMA 4x approved for Class 1 Div 2 area without purge
- ◆ 8 or 16 channels of analog or bridge-style input
- ◆ Cal Mode offers pushbutton zero and span cal for direct sensors
- ◆ Standard 5A SPDT common relays for HORN, HIGH, WARN & FAULT
- ◆ Separate MODBUS® master and slave port interfaces
- ◆ Relay voting logic for advanced alarm configurations
- ◆ Displays Sensor Life data from GASMAX monitors
- ◆ Magnetic keys for non-intrusive cal
- ◆ Available in panel mount, 19" rack mount, NEMA 4x or NEMA 7 XP

The GDS Corp. C1 Graphic Display / Alarm Controller provides display and alarm functions for up to 16 input variables. A graphic LCD displays data as trends, bargraphs and engineering units. Three adjustable alarm levels are provided per channel. Relay outputs with programmable voting logic allow control of beacons, horns and other alarm events. The horn relay may be set for steady or pulsing operation.

Analog inputs are accepted and conditioned via sensor-specific analog input cards. Alternatively, a standard RS-485 MODBUS® master port allows input data to be retrieved from remote MODBUS slave devices, including GASMAX monitors or C2 controllers.

Measurement ranges in engineering units, adjustable alarm set-points, dual serial interfaces and many other features allow the C1 controller to satisfy the needs of many demanding applications. C1 controllers are widely used for centralizing display and alarm functions in critical multi-point monitoring applications, including ambient gas detection, rotating machinery monitoring, tank level or flow monitoring.

An RS-485 MODBUS slave port allows up to 128 C1s to be multi-dropped onto a single data highway for interrogation by a MODBUS master device.

Options such as discrete channel alarm relays, 4-20mA input / output and direct sensor input conditioning are readily incorporated into the standard unit by connecting appropriate boards via an internal expansion bus, allowing versatile system configuration and rapid built-to-order capability.



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GDS CORP

Operating Voltage	10-30VDC (12 Watt MAX) 117VAC power supply included
Display	Backlit 128x240 pixel LCD shows trend, bargraph and engineering units
Analog Input	Optional 8 or 16 12-bit 4-20mA sources into 100 ohms; includes excitation power terminals for connection to 2 or 3 wire transmitters
MODBUS Input	Master mode RS-485 half or full duplex port capable of reading remote MODBUS® slave devices
MODBUS Output	Slave mode RS-485 half or full duplex port capable of being read by remote MODBUS master device
Relay Output	Four common output relays: A1, A2, FAIL & HORN: 5A@ 30VDC/240VAC Optional auxiliary common relay board with A1, A2 and HORN Optional 8 channel discrete relay board (up to 6 allowed)
4-20mA Output	Optional 8 channel 10 bit 4-20mA. Max loop R is 800 ohms with nominal 24VDC supply. (up to 2 allowed)
Printer Output	Optional parallel printer output board (one allowed)
Temp Range	-30°C to +65°C operating
Housing	Panel mount for 19" rack; NEMA 4X wall-mount suitable for Class 1 Div 2 Groups B, C, D; NEMA 7 wall-mount suitable for Class 1 Div 1 Groups B, C, D
Dimensions	NEMA 4X: Width 10" (254 mm); Height 15.1" (384 mm); Depth 8.5" (215 mm)
Approvals	CSA C22.2 No. 1010.1 & 152 for combustibles & ISA S82.02; UL 1604 / C22.2 No 213 (Div 2 Groups A, B, C, D); EN55011 & EN61000 (CE Mark).
Warranty	2 years from date of purchase



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C1 Order Guide

C1 A / B - C / D - E - F - G - H / J - K

“A” - Enclosure¹

PM = Panel / rack mount for 19" rack or panel mount
N4 = NEMA 4X wall-mount for C1 D2 Groups B, C, D
SS = NEMA 4 stainless steel for C1 D2 Groups B, C, D
XP = NEMA 7 wall-mount for C1 D1 Groups B, C, D

“B” = Channels 1-8 and “C” = Channels 9-16

- 10 One 10-0158 8 Channel Analog Input with Excitation²
- 20 One 10-0191 8 Channel Cat Bead LEL / mA Input²
- 21 20 plus one 10-0192 Dual Cat Bead LEL Module
- 22 20 plus two 10-0192 Dual Cat Bead LEL Modules
- 23 20 plus three 10-0192 Dual Cat Bead LEL Modules
- 24 20 plus four 10-0192 Dual Cat Bead LEL Modules

“D” - Auxiliary Common Relay Board

- 1 one 10-0144 Auxiliary common relay board

“E” - 4-20mA Analog Output Boards

- 1 Add one 10-167 Analog output board²
- 2 Add two 10-0167 Analog output boards²

“F” - Additional Relay Output Boards

- 1 Add one 10-0195 relay output board (8 relays)
- 2 Add two 10-0195 relay output boards (16 relays)
- 3 Add three 10-0195 relay output boards (24 relays)
- 4 Add four 10-0195 relay output boards (32 relays)
- 5 Add five 10-0195 relay output boards (40 relays)
- 6 Add six 10-0195 relay output boards (48 relays)

“G” - Printer Interface Board

- 1 Add one 10-0229 Parallel printer interface board²

“H” - Audible Alarm

- 1 Add 100db audible alarm for NEMA 4X enclosure

“J” - Enclosure Expansion Plate Options

- 1 Add one 10-0180 Expansion plate for NEMA 4X - provides four additional option locations
- 2 Add one 10-0181 Expansion plate for NEMA 7 - provides three additional option locations

“K” - NEMA 4X Expansion Enclosure

- 1 Add one 10-0178 Wall mount enclosure - provides eight additional option locations

Note 1: Option locations: PM = 2, N4 & SS = 3, XP = 5

Note 2: Requires an option location for mounting in chassis

Note 3: If entry is none, enter “0” on part number

Represented by: