Multivariable Controller



IDE40 SERIES

- NEMA 4X Panel Mount Multivariable Controller
- Convenient Display, Control, & Alarm of Multiple 4-20 mA, Temperature, Pulse, & Modbus Inputs
- 8-tank, 16-tank, 24-tank, 32-tank system options
- Numeric & Bargraph Color Display (320 x 240 pixels) 5.7" (145 mm)
- RS-485 Serial Communication with Modbus RTU / ASCII & Ethernet TCP/IP
- Hazardous location rated

APPLICATIONS

- Tank level indication
- General process variable monitor and indication
- Alarm indication
- Pump control
- Gas detection and monitoring
- Batch control and reporting
  - Dual stage
  - Automatic

SPECIFICATIONS

HMI display panel	**Color**: QVGA (320 x 240 pixels), 5.7" (145 mm) diagonally, white backlight **Bargraph**: Twenty divisions **Numerical**: Up to 15 digits (±999,999,999,999,999) **Feet & Inches format:** 99,999' 11.9"	
Display update rate	User selectable: 0.1 to 0.5 sec (10 updates/sec to 2 updates/sec)	
Number of screens	Up to 20 screens with 1 to 8 PVs or items per screen Enable or disable screen title, channel #, and bargraph Automatic or manual scanning Scan time: 1 to >1000 sec, independent for each screen F1-F4 keys are assigned per screen	
Function keys	User programmable (See defaults below) F1 = Previous ← F2 = Next → F3 = Scan/Stop F4 = Ack	
Communications	Modbus RTU or Modbus ASCII Ethernet TCP/IP	
Ratings	**Hazardous locations:** (US and Canada) Class I Division 2 Groups A, B, C, and D Class II Division 2 Groups F and G Class III Temperature Code: T4A CSA-C22.2 No. 61010-1 and CSA-C22.2 No. 61010-2-201 UL 61010-1 and UL 61010-2-201 Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use	**Ordinary locations:** (US and Canada) UL 508 Industrial Control Equipment CSA-C22.2 No. 61010-1 and CSA-C22.2 No. 61010-2-201 UL 61010-1 and UL 61010-2-201 Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use
Temperature range	Operating temperature range: -25 °C to 55 °C (-13°F to 131°F) Storage temperature range: -40 °C to 60°C (-40°F to 140°F) Relative humidity: 0 to 90% non-condensing	
External power requirements	**AC powered:** Three-terminal connector (L,N, GND) 90-264 VAC, 47 to 63 Hz, 60 W max	**DC powered:** Two-terminal connector (G, 24V) 24 VDC ±10%, 60 W max Means of Protection: Class 2 (Reinforced) Overvoltage Category: Class II
Enclosure	Type 4X, IP66 Enclosure Body: Thermoplastic Polyester Color: Gray Display Window: Clear Polycarbonate, GE LEXAN HP12W Front Panel Keys: Silicone rubber Weight: 7.4 lb (3.4 kg)	
Dimensions	10.85" x 10.85" x 4.87" (276 mm x 276 mm x 124 mm) (H x W x D)	

⚠ **WARNING:** This product can expose you to chemicals including Lead and Nickel, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

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ORDERING INFORMATION						
SERIES	**IDE40**					
APPROVALS*	**N**	No approvals	**G**	CE, cULus	**H**	CE, cULus, Nonincendive
POWER	**1**	90 - 264 Vac	**2**	24 Vdc		
OPTIONAL EXPANSION CARDS**	**A**	4 Analog Inputs	**D**	15 Digital Inputs	**P**	4 Pulse Inputs
	T	4 Temperature Inputs	**O**	5 Analog Outputs	**R**	5 Relays
	PR	Printer Card				
OPTIONS***	**ETH**	TCP/IP Network	**DL**	Data Logging	**BC**	Batch Controller
	MM	Modbus Master				

Notes:
* PR (printer), T (temperature inputs), and D (digital inputs) require N (no approvals)
** 7 total Expansion Cards Maximum, 6 Relay Expansion Cards Maximum, 1 Printer Expansion Card only, include number of required card as a prefix
*** ETH, DL, BC, and MM can all coexist together and with any other options and cards

EXAMPLE

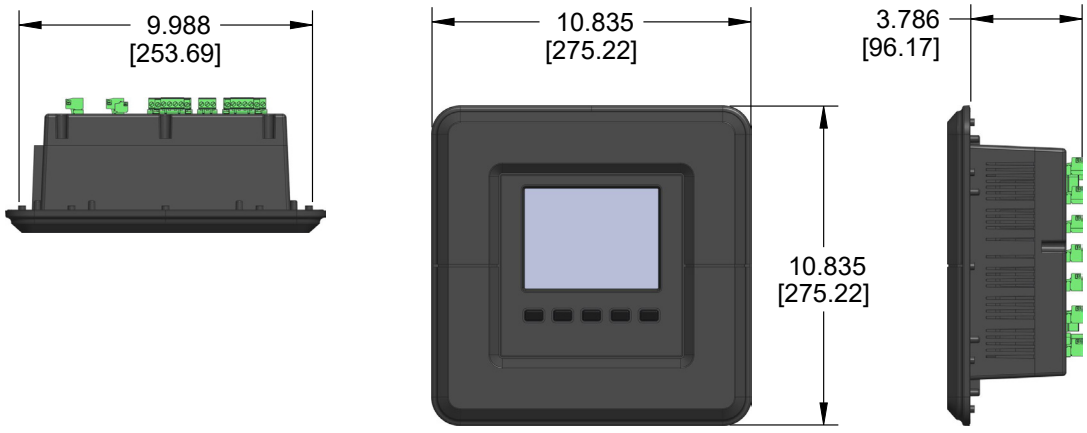
IDE40 – G – 1 – 3A – ETH

Series ..... IDE40 Series
Approvals ..... CE, cULus
Power ..... 90 - 264 Vac
Optional Expansion Cards ..... 4 Analog Inputs
Options ..... TCP/IP Network

OPTIONAL EXPANSION CARD EXAMPLE

CARD TYPE	CODE	POINTS PER CARD	MODEL CODE FORMAT
Analog inputs	**A**	**▪▪▪▪** 4	**X** A → **3** A = **3 cards** × **4 points** = 12 inputs
Temperature inputs	**T**	▪▪▪▪ 4	XT → 1T = 1 card × 4 points = 4 inputs
Printer	**PR**	Fixed,1 only	PR → no prefix, max 1 card
Digital inputs	**D**	▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ 15	XD → 2D = 2 cards × 15 points = 30 inputs
Analog outputs	**O**	▪▪▪▪▪ 5	XO → 20 = 2 cards × 5 points = 10 outputs
Pulse inputs	**P**	▪▪▪▪ 4	XP → 1P = 1 card × 4 points = 4 inputs
Relays	**R**	▪▪▪▪▪ 5	XR → 4R = 4 cards × 5 points = 20 relays (max 6 cards)

Notes:
- There is 7 total Expansion cards maximum.
- Expansion cards should be indicated in the order shown above.
- Omit expansion cards that are not required.



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