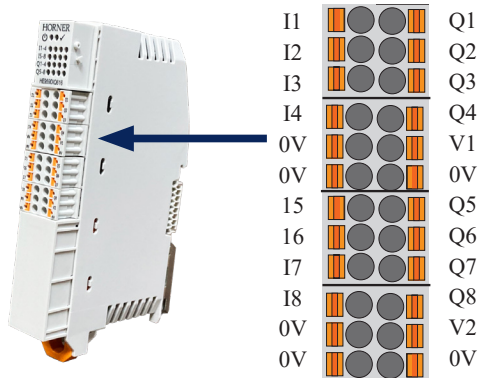


1.1 General Specifications	
Required Power (Steady State)	<130mA @ 5V <26mA @ 24V
Digital Inputs	8
Digital Outputs	8
Relative Humidity	5-95% non-condensing
Port Connectors	Phoenix Contact 2202234
Port Wiring - Digital I/O	16-24 AWG / 0.2-1.5mm <sup>2</sup>
Operating Air Temp	-40°C (-40°F) to 60°C (140°F)
Storage Temp	-40°C (-40°F) to 85°C (185°F)
Weight	3.10 oz.
Dimensions	76.5mm x 124.5mm x 19mm 3" x 4.9" x 0.75"
Certifications (UL/CE)	North America: <a href="https://hornerautomation.com/certifications/">https://hornerautomation.com/certifications/</a> Europe: <a href="https://www.hornerautomation.eu/support/certifications-2/">https://www.hornerautomation.eu/support/certifications-2/</a>

1.2 Digital Inputs	
Inputs per Module	8
Commons per Module	1
Input Voltage Range	12V to 24VDC
Absolute Max Voltage	32VDC
Input Impedance	10kΩ
OFF to ON Response	1ms
ON to OFF Response	1ms
Galvanic Isolation	No
I/O Indication	Status LED per Input
Logic Polarity	Selectable - common for all four inputs

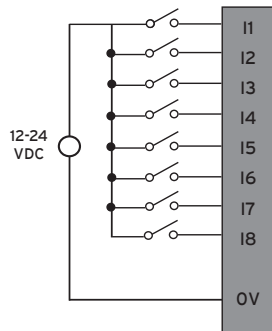
1.3 Digital Outputs	
Inputs per Module	8
Commons per Module	1
Absolute Max Voltage	28VDC
Output Protection	Short Circuit
OFF to ON Response	1ms
ON to OFF Response	1ms
Output Current per Channel	0.5A
Max Total Output Current	4A

## WIRING

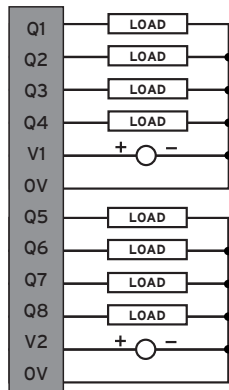


Use 75°C copper conductors only.

8 INPUTS	
SIGNAL	DESCRIPTION
I1	Input 1
I2	Input 2
I3	Input 3
I4	Input 4
0V	Common
0V	Common
15	Input 5
16	Input 6
17	Input 7
18	Input 8
0V	Common
0V	Common



8 Outputs	
SIGNAL	DESCRIPTION
Q1	Output 1
Q2	Output 2
Q3	Output 3
Q4	Output 4
V1	V+ Input for Outputs 1-4
0V	Common
0V	Common
Q5	Output 5
Q6	Output 6
Q7	Output 7
Q8	Output 8
V2	V+ Input for Output 5-8
0V	Common





## WARNINGS



**WARNING** - If the equipment is used in a manner not specified by Horner APG, the protection provided by the equipment may be impaired.

**WARNING - EXPLOSION HAZARD** - Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous  
**AVERTISSEMENT - RISQUE D'EXPLOSION** - Ne débranchez pas l'équipement tant que l'alimentation n'a pas été coupée ou que la zone n'est pas dangereuse.

**WARNING - EXPLOSION HAZARD** - Substitution of any component may impair suitability for Class I, Division 2  
**AVERTISSEMENT - RISQUE D'EXPLOSION** - Le remplacement de tout composant peut nuire à la compatibilité avec la classe I, division 2

**WARNING - POSSIBLE EQUIPMENT DAMAGE** - Remove power from the I/O Base and any peripheral equipment connected to this local system before adding or replacing this or any module.  
**AVERTISSEMENT - DOMMAGES POSSIBLES À L'ÉQUIPEMENT** - Coupez l'alimentation de la base d'E / S et de tout équipement périphérique connecté à ce système local avant d'ajouter ou de remplacer ce module ou tout autre module.

**WARNING** - Outputs should be connected to the same voltage levels (all connect to 24V supply sources)  
**WARNING** - Digital Outputs are non-isolated and considered hazardous live.  
**WARNING** - Loads for outputs require a Class 2 or Limited Power Source from a UL Listed power supply.

## SAFETY

- All applicable codes and standards should be followed in the installation of this product.
- Shielded, twisted-pair wiring should be used for best performance.
- Shields should be grounded at one end only, preferably at the end providing the best noise shunting.

## TECHNICAL SUPPORT

For further details, please refer to the Datasheets on the Horner website.

For assistance, contact Technical Support at the following locations:

**North America**  
+1 (317) 916-4274  
[www.hornerautomation.com](http://www.hornerautomation.com)  
APGUSATechSupport@heapg.com

**Europe**  
+353 (21) 4321-266  
[www.hornerautomation.eu](http://www.hornerautomation.eu)  
technical.support@horner-apg.com

## INSTALLATION

The HE959DIQ616 is compact and mounts on a DIN-rail. Each I/O module installed adds width in increments of 19mm.

**NOTE:** The distance between wiring duct and surrounding modules should be at least 50mm apart.

Modules can be added after the OCS-I/O base has been installed on the DIN-rail and can be hot swapped with power applied. I/O scanning will stop until the correct modules for the system are detected in all slots.

I/O modules are physically added with the following procedure:

- Connect the bus connectors together to form a backplane that can accept up to 8 modules including the CNX116 or another base.
- Snap the bus connectors into the DIN rail. The DIN rail should be 35 mm x 7.5 mm and made to EN 60715 standards.
- Place the OCS-I/O base to the leftmost connector.
- Inset modules by latching at the top of the DIN rail first and rocking down until the latch at the bottom of the DIN rail engages.
- To remove a module, insert a flat blade screwdriver into the metal DIN rail latch at the bottom of the module. Pry down to release the latch, the rock the module up and off the DIN Rail. Modules may be removed while powered however I/O scanning on the remaining modules will stop and I/O will go to the default state until a new module is inserted and all modules in the configuration are present.



# OCS-I/O

### Digital Input/Output Module - HE959DIQ616

