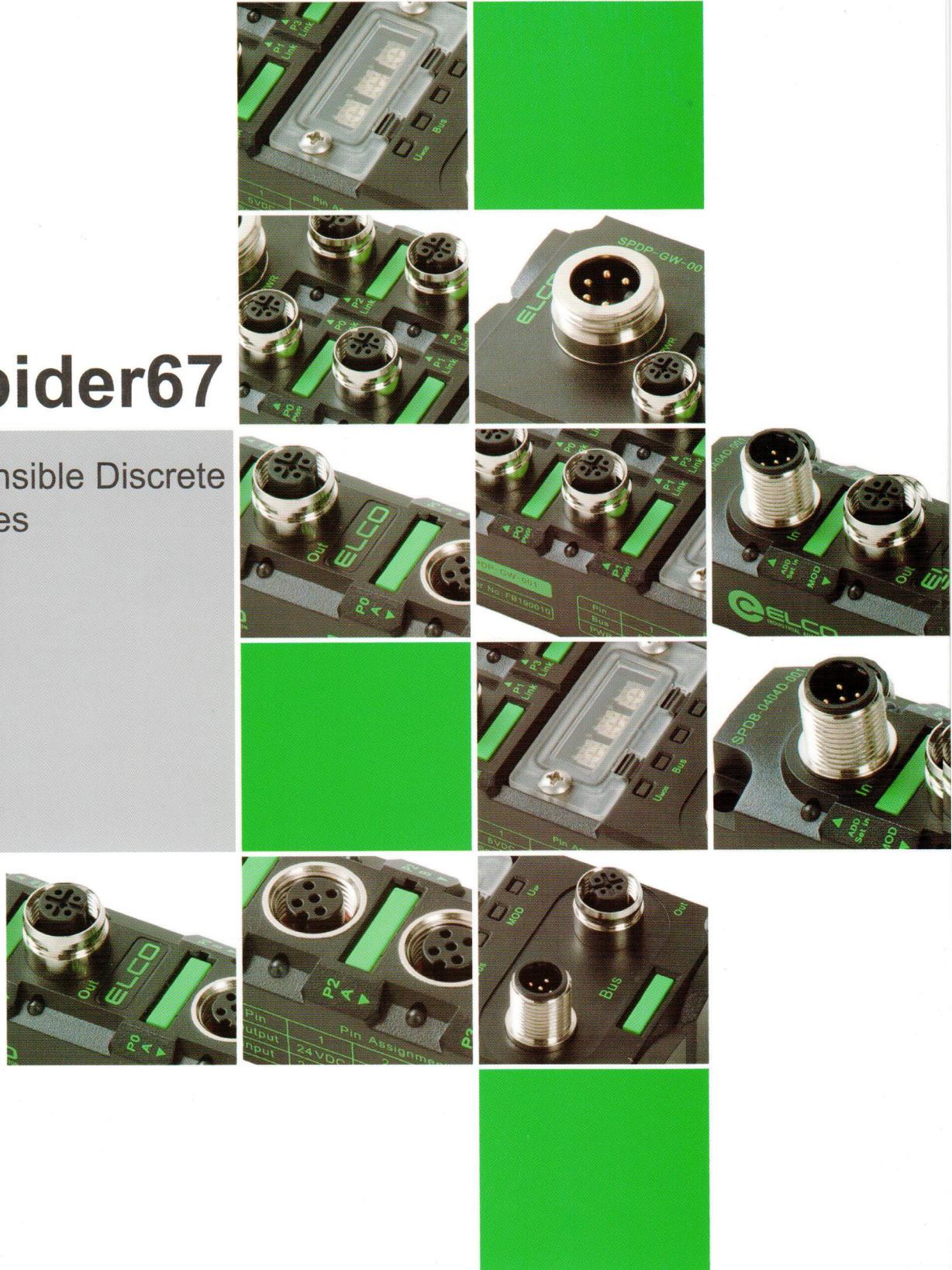


UNOPAL Private Limited
8, Ubi Road 2, #06-20, Zervex
Singapore 408538
Tel: +65-6747 0083
Fax: +65-6747 6041
E-mail: unopal@singnet.com.sg
Website: www.unopal.com.sg



Spider67

IP67 Extensible Discrete I/O Modules



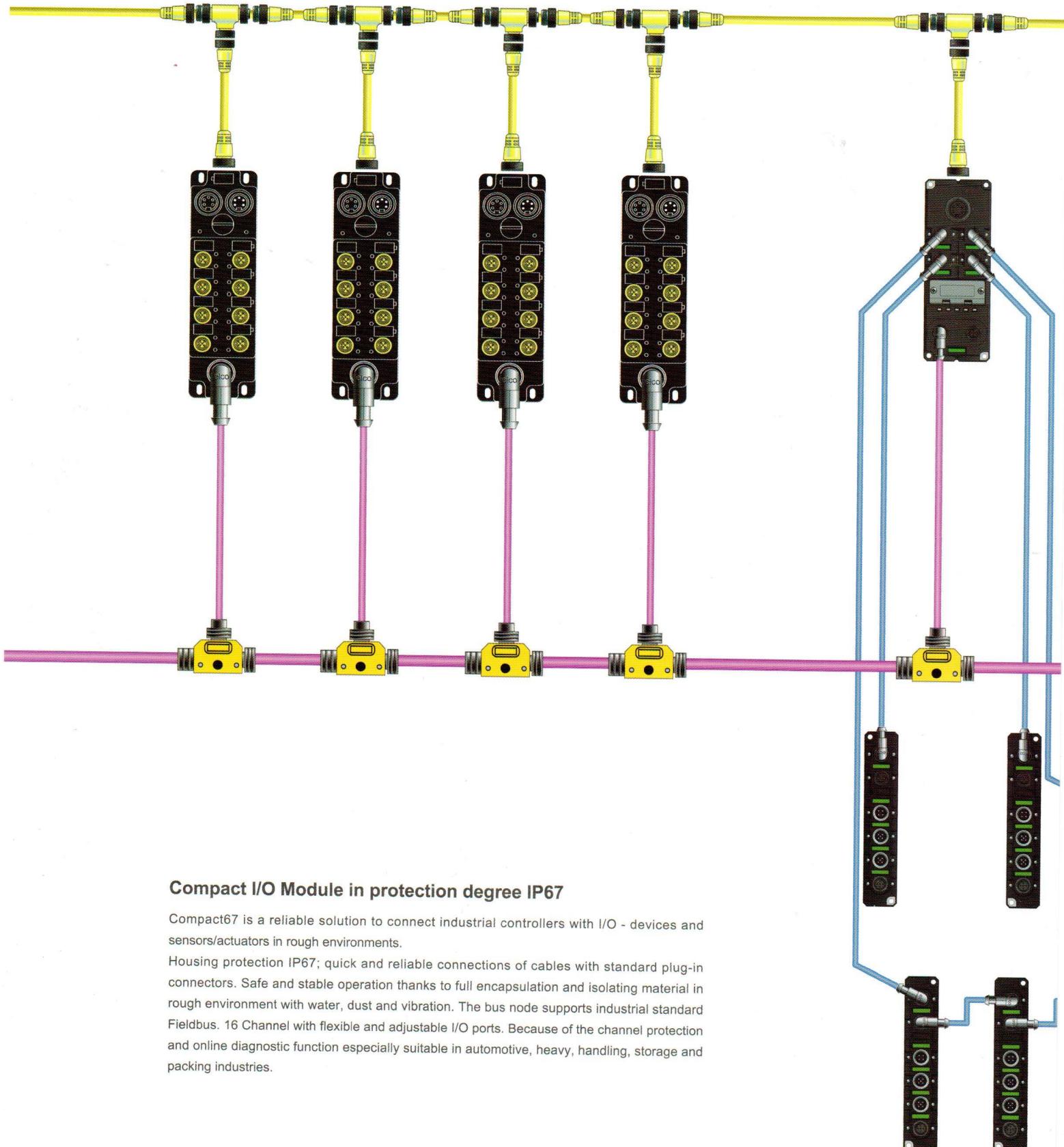
SP-1408-001EN

UNOPAL PRIVATE LIMITED
8, UBI ROAD 2, #06-20, ZERVEX
SINGAPORE 408538

TEL: +65-6747 0083
FAX: +65-6747 6041

E-MAIL: unopal@singnet.com.sg
WEBSITE: www.unopal.com.sg

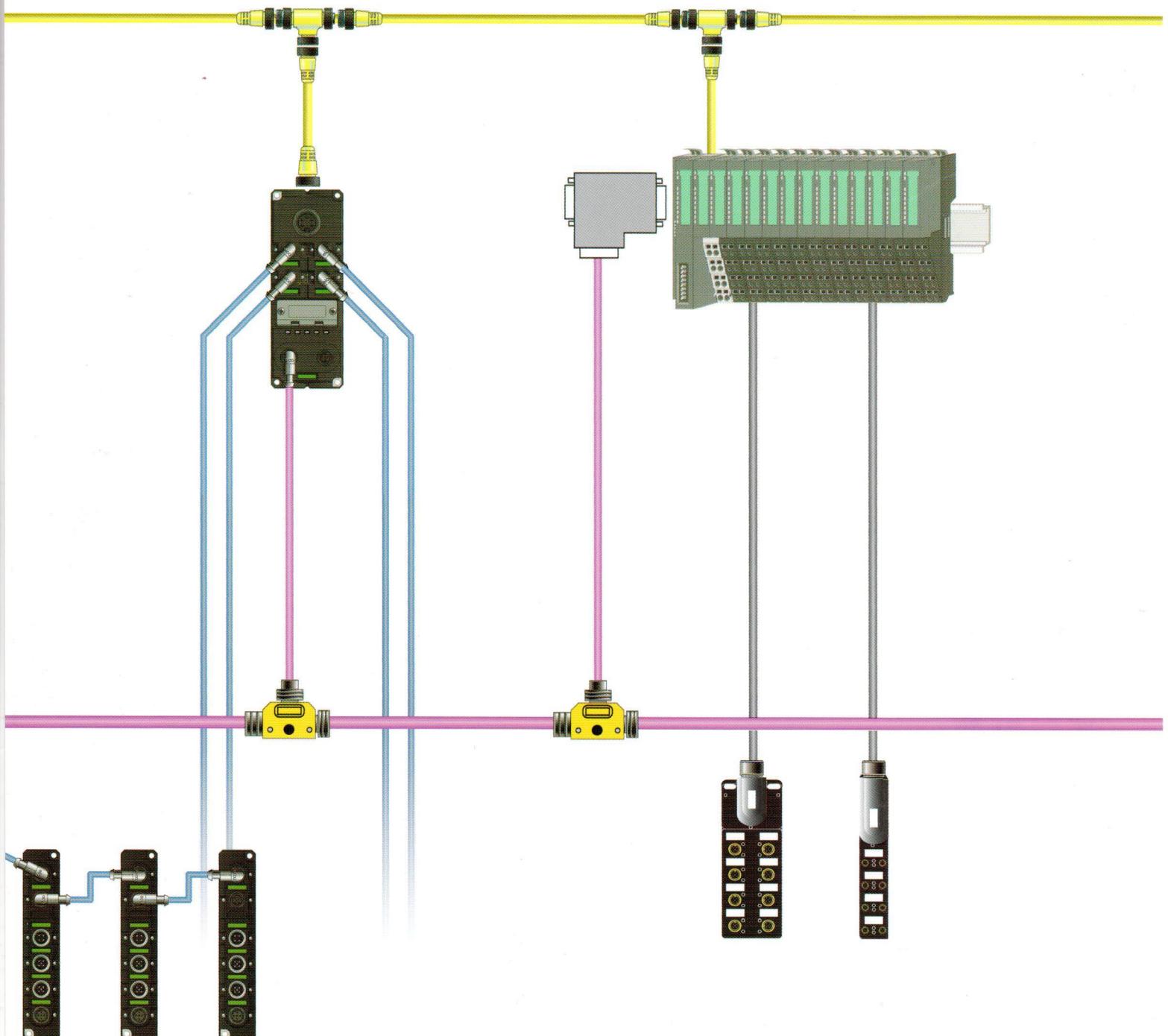
<< IP67 System Solution



Compact I/O Module in protection degree IP67

Compact67 is a reliable solution to connect industrial controllers with I/O - devices and sensors/actuators in rough environments.

Housing protection IP67; quick and reliable connections of cables with standard plug-in connectors. Safe and stable operation thanks to full encapsulation and isolating material in rough environment with water, dust and vibration. The bus node supports industrial standard Fieldbus. 16 Channel with flexible and adjustable I/O ports. Because of the channel protection and online diagnostic function especially suitable in automotive, heavy, handling, storage and packing industries.



Spider67 New extensible I/O Fieldbus node

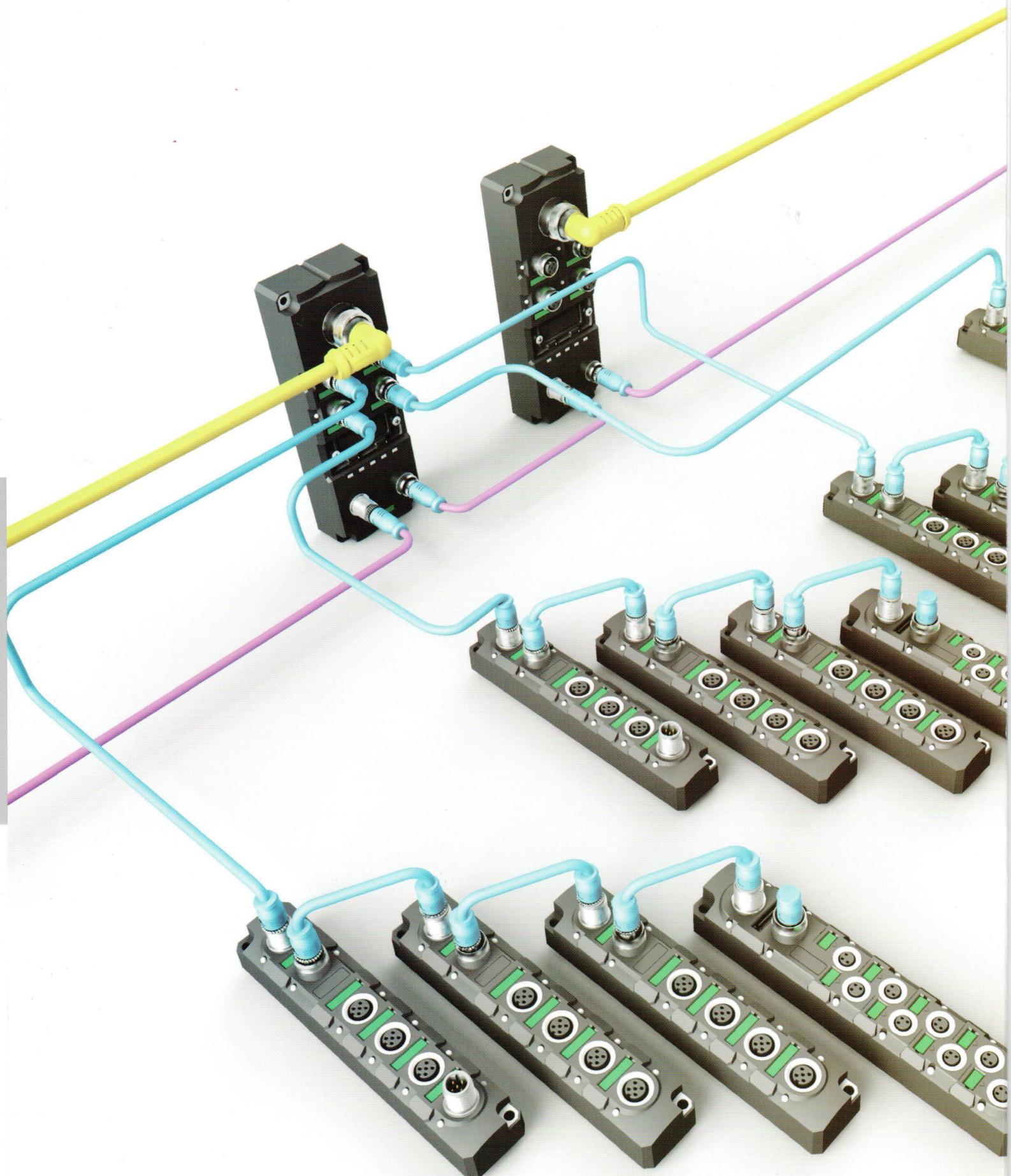
The system consists of a Fieldbus node and digital and analogue sub-modules. Spider67 supports standard industrial bus protocols, such as ProfiBus, ProfiNet, etc. Up to 4 strings, each with 4 sub-modules in a total length of 100m per string allow high flexibility for field wiring; up to 128 I/O points.

Major benefits in a star network of field sensors around a bus node. Up to 8 digital I/O or 3 analogue signals can be connected to a sub-module.

Passive Sensor/Actuator Distribution Box IP67

Ideal for the wiring of modular equipments, tooling machines, external processing units and non – networked applications. Simple diagnosis functions and protection degree IP67 are the highlights of this system.

This complete I/O solution consists of distribution boxes, plug connectors and other complimentary accessories. Quick, simple and safe wiring with sensors, light barriers, solenoid valves, etc. Special configured cables to facilitate wiring and connections with peripheral I/O points in a distribution box or other control circuits.



UNOPAL PRIVATE LIMITED
8, UBI ROAD 2, #06-20, ZERVEX
SINGAPORE 408538

TEL: +65-6747 0083
FAX: +65-6747 6041

E-MAIL: unopal@singnet.com.sg
WEBSITE: www.unopal.com.sg

<< Spider67

Overview

The wide and increasing employment of Fieldbus systems has a big impact in the automation industry. Conventional centralized controls are substituted with discrete intelligent control points in the field. In order to save costs and to reduce installation and maintenance times, more and more devices are transferred from the control cabinet into the field. Spider67 from Elco supports these modern installation methods with a new and revolutionary expandable I/O system. The new gateway module supports standard bus protocols like ProfiBus, ProfiNet and EtherCat. Various sub-modules (analogue-, digital-, and function modules) are available. The simple and easy to install Fieldbus system Spider67 is especially suitable for applications in rough environments. It can also be installed in control cabinets. Spider67 is particularly suitable for flexible installations on lifting or rotating equipments and provides therefore the most effective I/O solution for application in the field.

Product overview

- Gateway: Supports standard bus and extensible sub-modules
- Connection cables: Wiring sub-modules and gateways
- Digital module: Input and output of digital signals
- Analogue modules: Input and output for current and voltage signals
- Function modules: High speed counting and communication modules

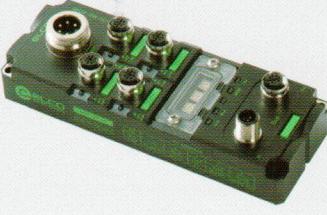
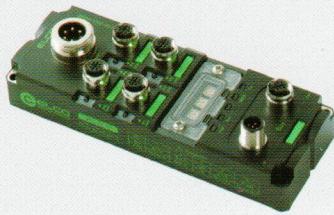
Applications

- Automotive
- Heavy industries
- Logistics
- Machining tools
- Food and beverage processing industry
- Especially suitable in harsh environments requiring a high protection degree

Key features

- Compact design minimizes mounting space requirement
- Supports various fieldbus protocols i.g. ProfiBus, ProfiNet, etc.
- Flexible I/O configuration with a combination of analogue, digital, and function modules
- LED status indication, fast function diagnosis
- Online diagnosis function for modules and channels
- Up to 16 sub modules in 4 strings can be connected
- Can be combined with Compact67 systems at random

Gateway



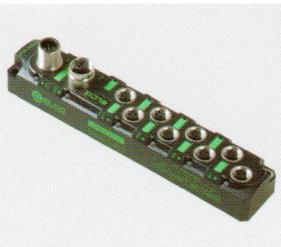
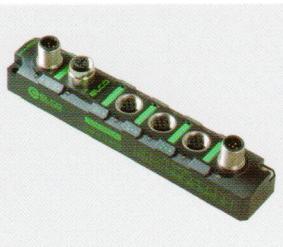
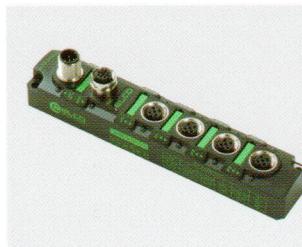
Features

- Supports standard industrial protocols
- Flexible connection of extension modules
- LED status display, fast function analysis and channel protection circuit
- Protection degree IP67

Type	SPDP-GW-001	SPPN-GW-001	SPEC-GW-001	
Description	Profibus substation interface module	Profinet substation interface module	EtherCat substation interface module	
Protocol	ProfiBus-DP	Profinet-IO	EtherCat-IO	
Interface				
Bus	Male in + female out, M12 B-code	Female in + male out, M12 D-code		
Power supply	1-male 7/8", Max. current 8A			
Extension	4-female M12 B-code, Max. current 4A			
Electrical parameter				
Operating voltage	24VDC (18...30V)			
Operating current	≤200mA			
Address range	1..125, dial switch	0..254, configurable		
Transmission rate	9.6K - 12Mbps	10/100Mbps	100Mbps	
Number of extended module	4 for each port, up to 16			
Distance between extensible modules	Max.100m/channel			
Protection grade	IP67			
Operating temperature	-25°C...70°C			
Module size	60mm*155mm*30mm			

* Ethernet/IP, CC-Link coming soon

Digital module

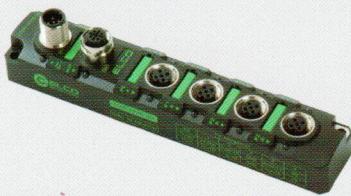


Features

- Direct connection of sensor and actuator
- Up to 8 I/O signals, configuration by user
- Short circuit and overload protection
- Protection degree IP67

Type	SPDB-0800D-001	SPDB-0404D-001	SPDB-08UP-001	SPDB-0008D-001	SPDB-0006D-001
Description	8DI, 4xM12	4DI4DO, 4xM12	8DI+DO, M12	8DO, 4xM12	6DO, 3xM12
Type	SPDB-0800D-011	SPDB-0404D-011	SPDB-08UP-011	SPDB-0008D-011	
Description	8DI, 8xM8	4DI4DO, 8xM8	8DI+DO, M8	8DO, 8xM8	
Interface					
Communication link	Male in + female out, M12 B-code				
Power supply	Supply with extended interface				
Signal link	4xM12 or 8xM8				
Electrical parameter					
Rated voltage	24VDC (18...30V)				
Input channel	8 x PNP	4 x PNP	Max. 8 x PNP	—	—
Output channel	—	4 x 0.5A	Max. 8 x 0.5A	8 x 0.5A	6 x 2A
Input signal "0"	Low level: 0~5V				
Input signal "1"	High level: 10~30V				
Input delay	3ms				
Input current	6.4mA				
Input supply current	Holding current 200mA, action current 400mA				
Max. output current	Each channel 0.5A ($\Sigma=4A$)				
Output short circuit current	Each channel 20mA				
Max. switching frequency	100Hz				
Protection grade	IP67				
Operating temperature	-25°C...70°C				
Module size	30mm*155mm*30mm				

Analog Module



Features

- Direct connection of current and voltage signals
- Up to 3 signals with flexible configuration
- 14-bit resolution
- Protection degree IP67

Type	SPDB-0300A-001	SPDB-0300A-002	SPDB-0003A-001	SPDB-0003A-002
Description	3AI ($\pm 20\text{mA}$)	3AI ($\pm 10\text{V}$)	3AO ($\pm 20\text{mA}$)	3AO ($\pm 10\text{V}$)
Interface	Male in + female out, M12 B-code			
Communication link	Supply with extended interface			
Power supply	3-male, M12 A-code			
Signal link				
Electrical parameter				
Rated supply voltage	24VDC (18...30V)			
Number of input channel	3	3	—	—
Number of output channel	—	—	3	3
Input signal type	-20...+20mA	-10...+10V	—	—
Output signal type	—	—	-20...+20mA	-10...+10V
Internal impedance	<125Ω	<100kΩ	>450Ω	>1kΩ
Input smoothing frequency	1KHz			
Resolution	14Bit			
Switching time	12ms			
Measurement accuracy	± 0.3%			
Sensor power supply	Depends on load current, Max. 30V			
Protection grade	IP67			
Operating temperature	-25°C...70°C			
Module size	30mm*155mm*30mm			

Accessory



Features

- Pre-wired connection cable
- Flexible cable lengths as per customer requirement
- Various cable types depending on the application
- Easy installation on site

Type	BB6S30P01D020	BB6S30P01D030	BB6S30P01M010
Description	0.2m pre-wired cable	0.3m pre-wired cable	1m pre-wired cable
Parameter			
Cable length	D=cm (D020=0.2m); M=m (M010=1m)		
Cable diameter	P01, P03: 6.5±0.2mm; P09: 8.0±0.2mm		
Cable material	P01=PVC; P03=PUR; P09=long distance communication cable		
Connector type	Male+female M12 B-code connector		
Connector material	Nylon+Rubber+Nickel plated brass		
Voltage	300V		
Protection grade	IP67		
Operating temperature	-25°C...70°C		
Type	BB6S06		
Description	Extension terminal resistance		



ELCO Industrial Automation (Asia) Pte Ltd

51, Bukit Batok Crescent
#07-19, Unity Centre
Singapore 658077
Enquiries: info@elco-ia.com
Website: www.elco-ia.com
www.elco-holding.com

ELCO INDUSTRY AUTOMATION AG
Postgasse 8
3052 Zollikofen
Switzerland
E-Mail: info@elco-holding.com



www.elco-holding.com

ELCO (TIANJIN) ELECTRONICS CO., LTD.
No.12, 4th XEDA Branch Road
Xiqing Economic Development Area
Tianjin 300385, P. R. China
E-Mail: info@elco.cn



www.elco-holding.com.cn