

DECOWELL®

SD Series IP67 Remote I/O Module

New generation of high protection IO

Decowell Reliable partner for intelligent manufacturing

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Decowell Automation

Decowell • Reliable partner for intelligent manufacturing



2016

Company establishment



100+

Intellectual property

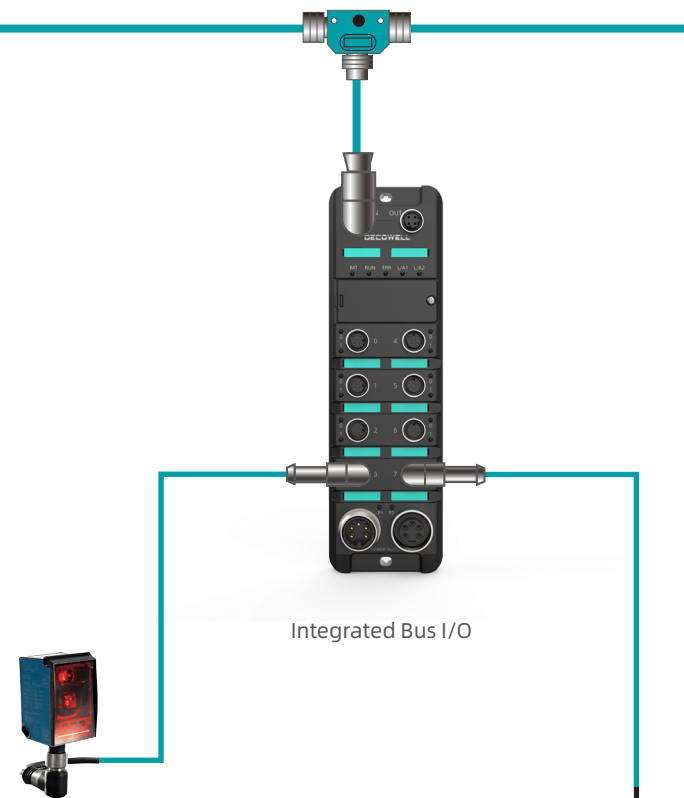
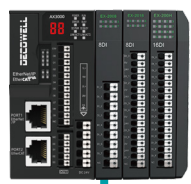


1000+

Customers

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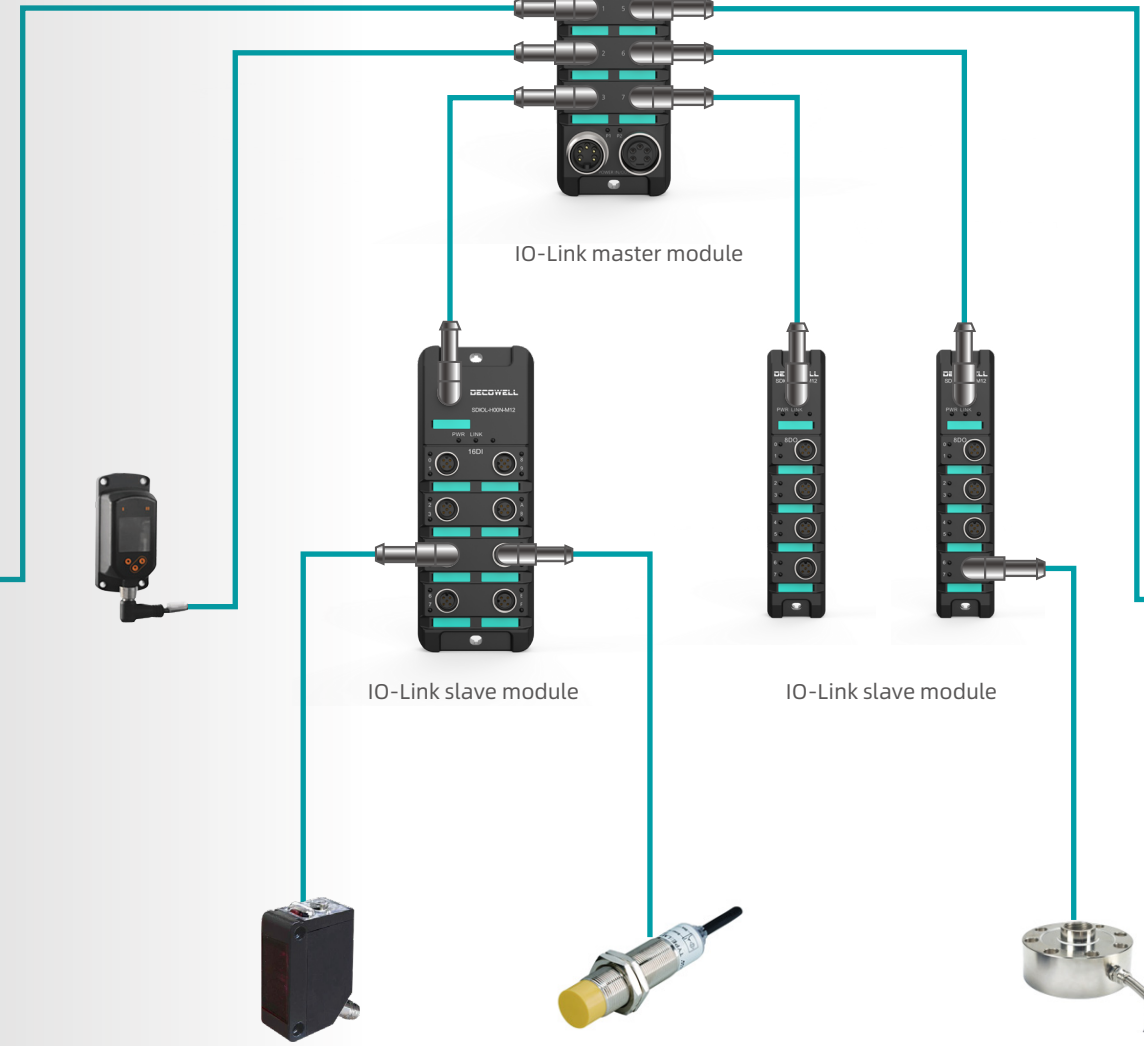
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Integrated Bus I/O

Series IP67 Remote I/O Module

SD series products are high protection I/O modules introduced by Decowell, up to IP67 protection level. Support mainstream fieldbus protocols, such as PROFINET, EtherCAT, EtherNet/IP, a single module supports a maximum of 16 signal points, signal types include digital input and output, analog input and output. It is equipped with fully sealed miniaturized design and compact structure, which is easy to integrate and install. With the flexible connection of the extension cable, waterproof and dust-proof, suitable for long-term stable operation and in various severe industrial environment in the application scenario, it has a strong anti-interference ability, widely used in automotive, lithium, material flow, metallurgy, printing and other industries.



IO-Link master module

IO-Link slave module

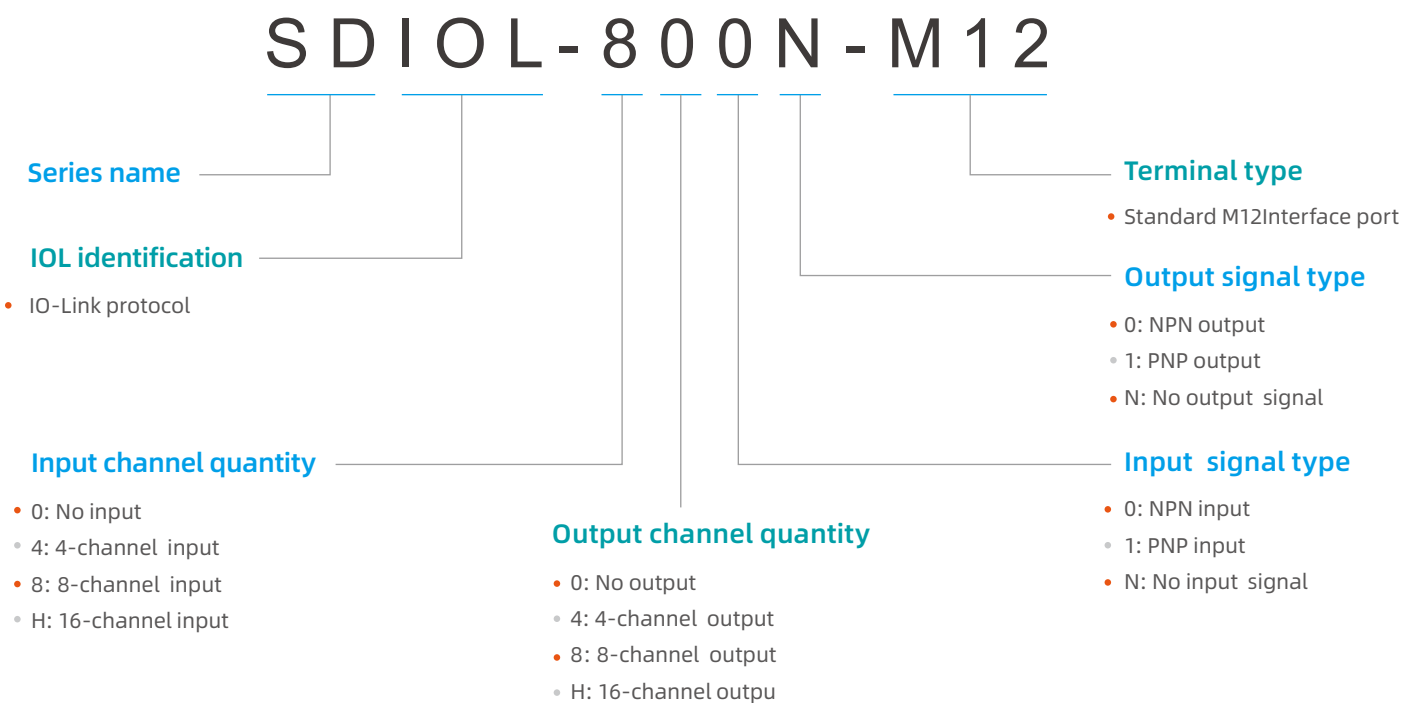
IO-Link slave module

Product naming rule

IO-Link master module naming rules



IO-Link slave module naming rules

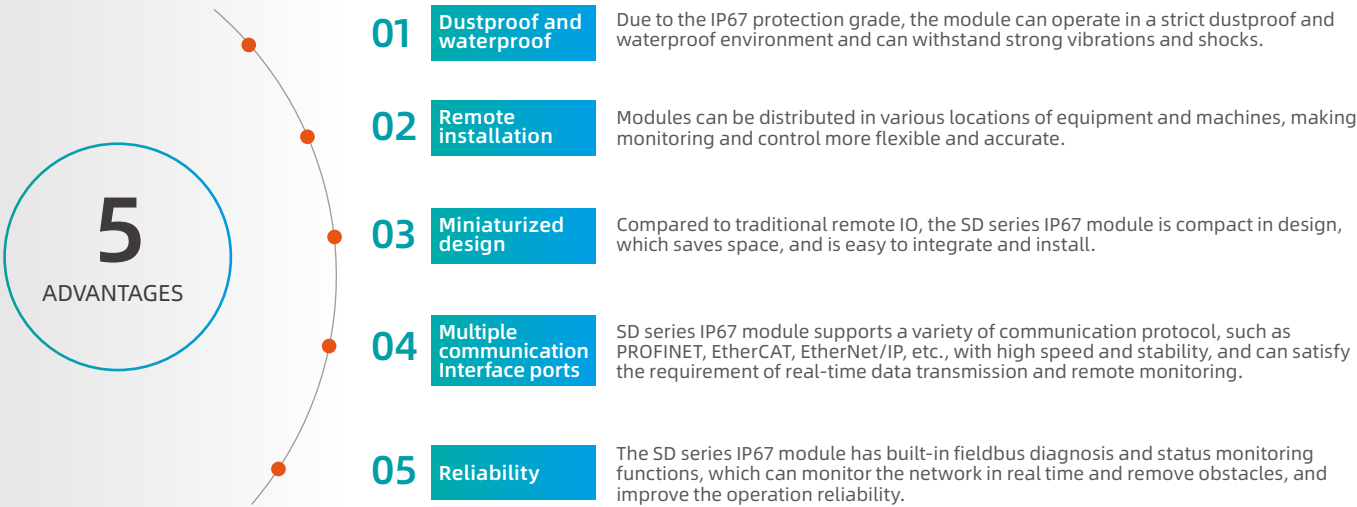


Product introduction

Product characteristics

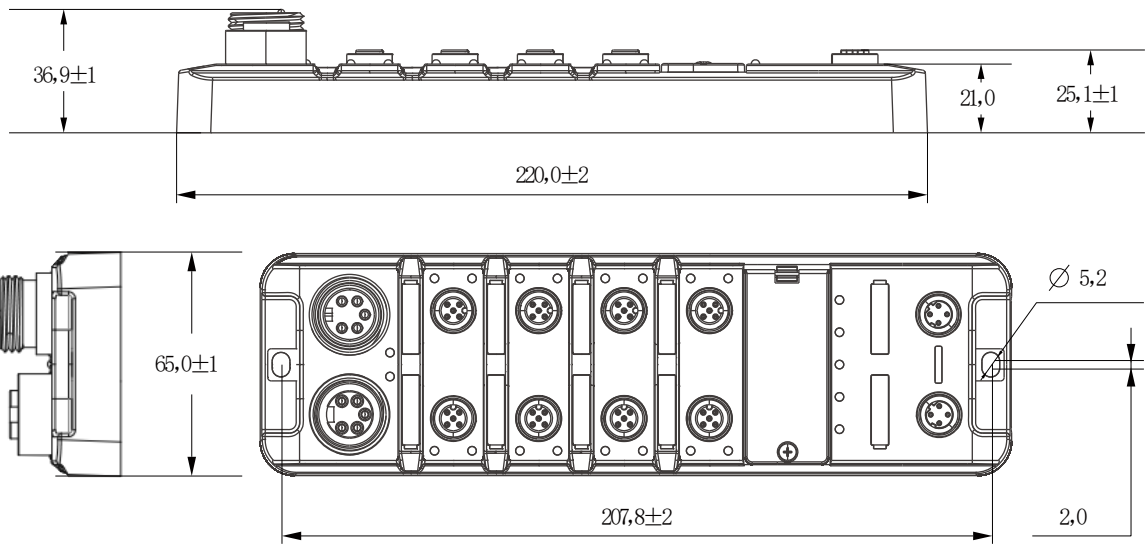


SD Series IP67 modules are used for product characteristics in harsh environments

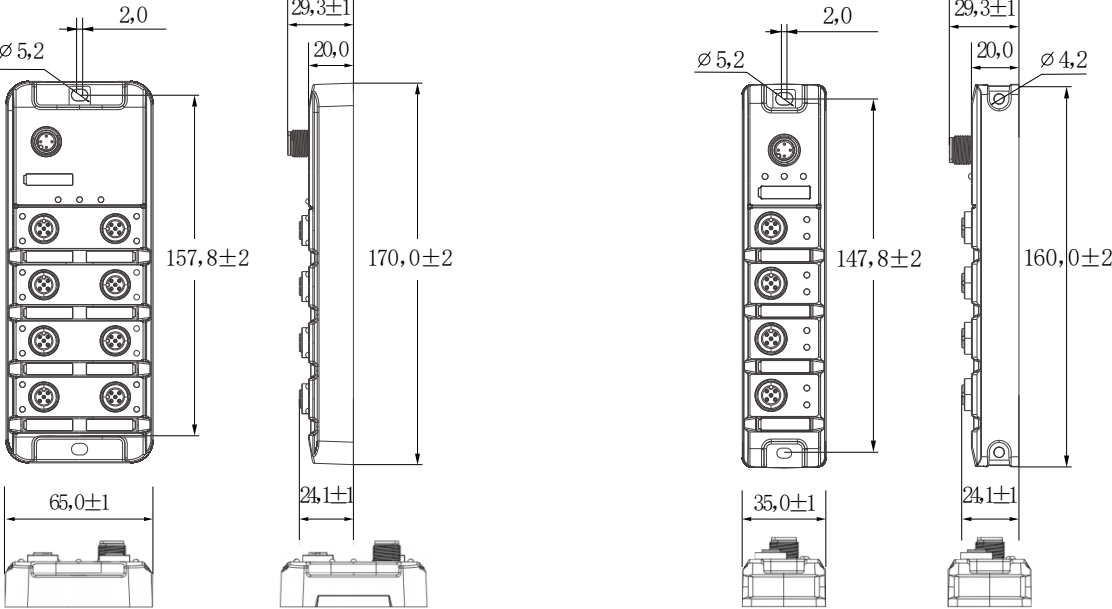


Product size

IO-Link master module dimension description

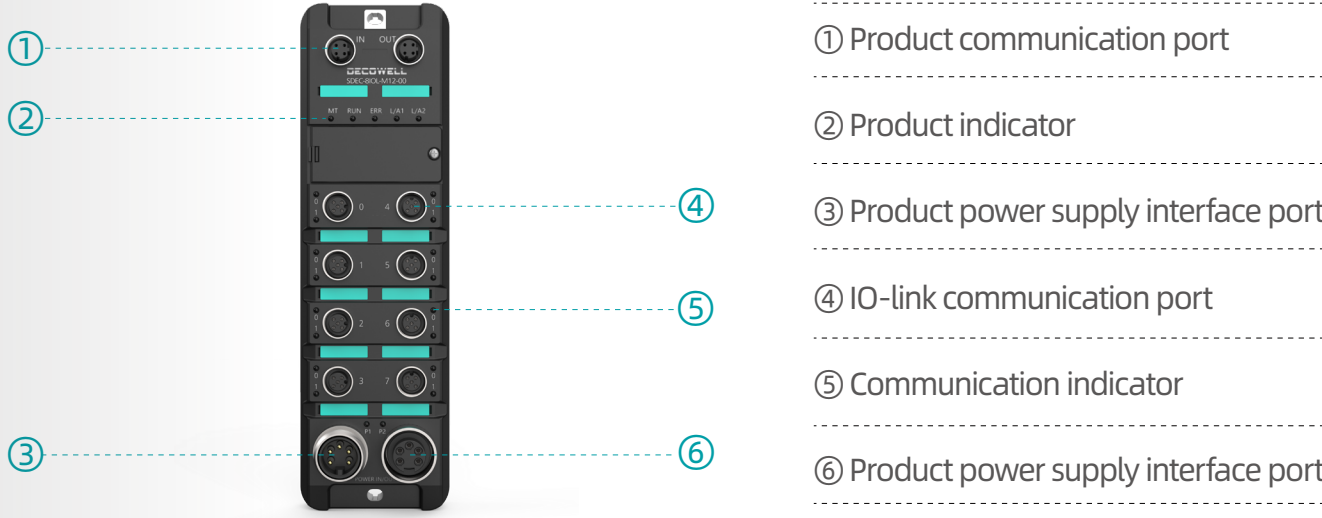


IO-Link Hub slave module dimension description

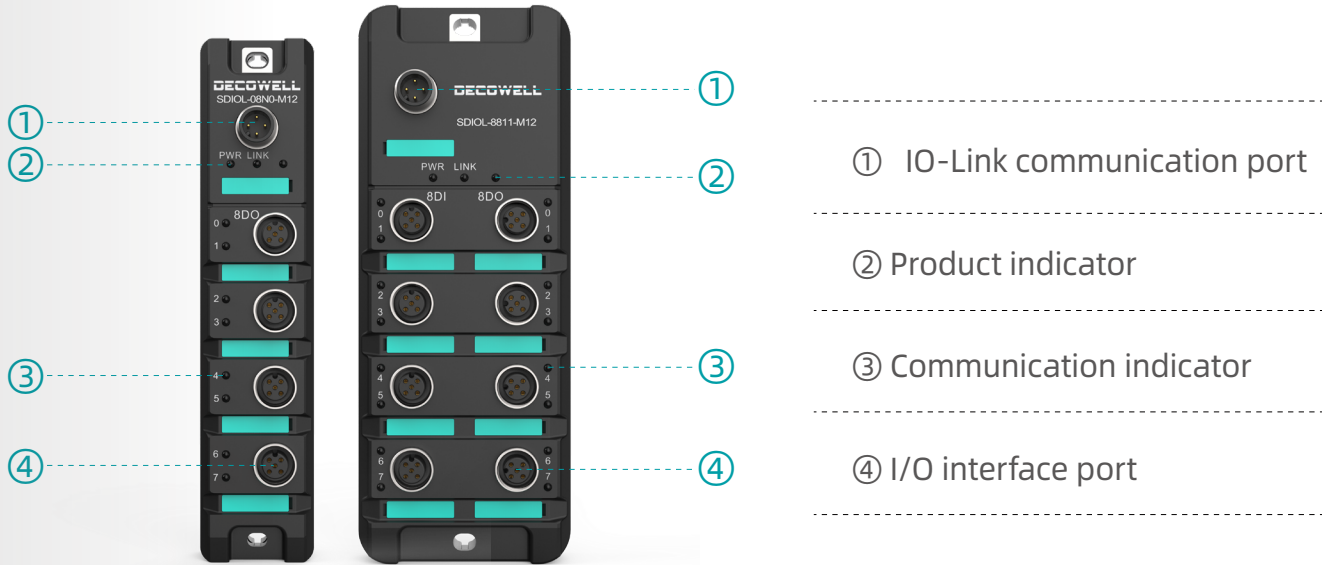


Interface port description

IO-Link master module Interface port description



IO-Link Hub slave module Interface port description



 Product parameter IO-Link master module

Product model	SDPN-8IOL-M12-00	SDEC-8IOL-M12-00
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Working principle	IO-Link Main control unit	IO-Link Main control unit
Dimension	66x221x29mm	66x221x29mm
Shell material	PA6+gf30%	PA6+gf30%
Interface port	Profinet I/O	EtherCAT I/O
Digital input	16xPNP, Type 3	16xPNP, Type 3
Digital output	8xPNP	8xPNP
Input/output configurable	Yes	Yes
Alternate Interface port	8xIO-Link	8xIO-Link
Port type	Type A	Type A
Interface port slot	8xM12,socket, 5 pins, code A	8xM12,socket, 5 pins, code A
Working voltage Ub	18V-30V	18V-30V
Maximum output current	2A	2A
Total actuator current UA	8A	8A
Address range	IPV4	N/A
Ambient temperature	-25°C-70°C	-25°C-70°C
Protection grade	IP67	IP67
Order number	07-01-01	07-01-03

IO-Link slave module I/O module

Product model	SDIOL-0HN0-M12	SDIOL-0HN1-M12	SDIOL-H00N-M12	SDIOL-H01N-M12
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Dimension	66x171x29mm	66x171x29mm	66x171x29mm	66x171x29mm
Shell material	PA6+gf30%	PA6+gf30%	PA6+gf30%	PA6+gf30%
Interface port	IO-LINK 1.1.3	IO-LINK 1.1.3	IO-LINK 1.1.3	IO-LINK 1.1.3
Digital input	No	No	No	No
Digital input end	No	No	16x NPN, Type 1	16x PNP, Type 1
Digital output	16x NPN	16x PNP	No	No
Alternate Interface port	No	No	No	No
Output end, quantity	16	16	No	No
Input end, quantity	No	No	16	16
Maximum output current	2A	2A	N/A	N/A
Interface port slot	8xM12,socket, 5 pins, code A	8xM12,socket, 5 pins, code A	8xM12,socket, 5 pins, code A	8xM12,socket, 5 pins, code A
Additional function	N/A	N/A	N/A	N/A
Working voltage Ub	18-30VDC	18-30VDC	18-30VDC	18-30VDC
Ambient temperature	-25°C-70°C	-25°C-70°C	-25°C-70°C	-25°C-70°C
Protection grade	IP67	IP67	IP67	IP67
Minimum cycle time	5ms	5ms	5ms	5ms
Included in the stand ard order	Part tag (16x),M12 blind plug (8x)	Part tag (16x),M12 blind plug (8x)	Part tag (16x),M12 blind plug (8x)	Part tag (16x),M12 blind plug (8x)
Order number	07-03-04	07-03-06	07-02-04	07-02-06

IO-Link slave module I/O module

Product model	SDIOL-8800-M12	SDIOL-8811-M12	SDIOL-08N0-M12
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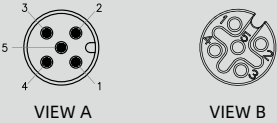
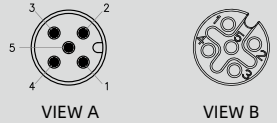
Dimension	66x171x29mm	66x171x29mm	36x160x23mm
Shell material	PA6+gf30%	PA6+gf30%	PA6+gf30%
Interface port	IO-LINK 1.1.3	IO-LINK 1.1.3	IO-LINK 1.1.3
Digital input	8xNPN, Type 1	8xPNP, Type 1	No
Digital output	8xNPN	8xPNP	8xNPN
Alternate Interface port	N/A	N/A	N/A
Maximum output current	2A	2A	2A
Interface port slot	8xM12,socket, 5 pins,code A	8xM12,socket, 5 pins,code A	8xM12,socket, 5 pins,code A
Additional function	N/A	N/A	N/A
Working voltage Ub	18-30VDC	18-30VDC	18-30VDC
Ambient temperature	-25°C-70°C	-25°C-70°C	-25°C-70°C
Protection grade	IP67	IP67	IP67
Minimum cycle time	5ms	5ms	5ms
Included in the stand ard order	Part tag (16x),M12 blindplug (8x)	Part tag (16x),M12 blindplug (8x)	Part tag (16x),M12 blindplug (8x)
Order number	07-02-08	07-02-10	07-03-00

Product model	SDIOL-08N1-M12	SDIOL-800N-M12	SDIOL-801N-M12
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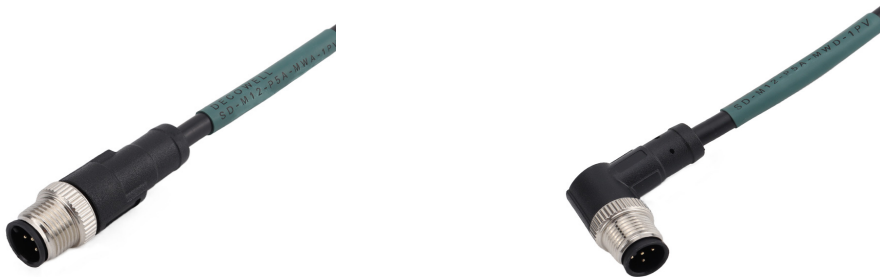
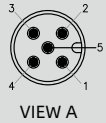
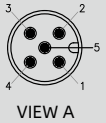


Dimension	36x160x23mm	36x160x23mm	36x160x23mm
Shell material	PA6+gf30%	PA6+gf30%	PA6+gf30%
Interface port	IO-LINK 1.1.3	IO-LINK 1.1.3	IO-LINK 1.1.3
Digital input	No	8xNPN, Type 1	8xPNP, Type 1
Digital output	8xPNP	No	No
Alternate Interface port	N/A	N/A	N/A
Maximum output current	2A	N/A	N/A
Interface port slot	8xM12,socket, 5 pins,code A	8xM12,socket, 5 pins,code A	8xM12,socket, 5 pins,code A
Additional function	N/A	N/A	N/A
Working voltage Ub	18-30VDC	18-30VDC	18-30VDC
Ambient temperature	-25°C-70°C	-25°C-70°C	-25°C-70°C
Protection grade	IP67	IP67	IP67
Minimum cycle time	5ms	5ms	5ms
Included in the stand ard order	Part tag (16x),M12 blindplug (8x)	Part tag (16x),M12 blindplug (8x)	Part tag (16x),M12 blindplug (8x)
Order number	07-03-02	07-02-00	07-02-02

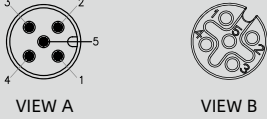
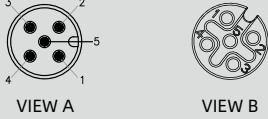
Accessory Power supply cable
M12 IO-Link Communication cable

Product model	M12-S5A/P5A-MWA-1PV-S	M12-S5A/P5A-MWD-1PV-S
		
Product description	M12 Linear double-ended pre-cast IO LINK-M12 5-core shielded cable (1m)	M12 Curved double-ended pre-cast IO LINK-M12 5-core shielded cable (1m)
Connection mode	Threaded connection	Threaded connection
Wiring mode	Weld	Weld
Temperature	-25°C~+80°C	-25°C~+80°C
Pollution range	3	3
Protection grade	IP67	IP67
Number of connections	≥500	≥500
Rated voltage	60V AC/DC	60V AC/DC
Rated current	4A	4A
Contact resistance	≤5mΩ	≤5mΩ
Insulation resistance	≥100MΩ	≥100MΩ
Product coating	PVC, shielded	PVC, shielded
Wiring outlet length	1, 2, user-defined	1, 2, user-defined
Product end face		
Connection definition	pin 1 : 24VDV power supply pin 2 : DI signal pin 3 : GND pin 4 : C/Q,IO-Link communication pin 5 : FE, Functional grounding pin 1 : brown pin 2 : white pin 3 : blue pin 4 : black pin 5 : grey	pin 1 : 24VDV power supply pin 2 : DI signal pin 3 : GND pin 4 : C/Q,IO-Link communication pin 5 : FE, Functional grounding pin 1 : brown pin 2 : white pin 3 : blue pin 4 : black pin 5 : grey
Order number	S2-55-01	S2-65-01

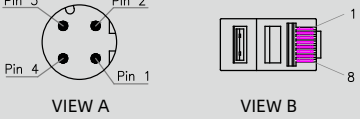
M12 IO Signal cable

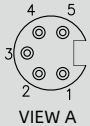
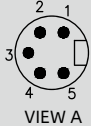
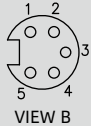
Product model	M12-P5A-MWA-1PV	M12-P5A-MWD-1PV
		
Product description	M12 Straight single-ended pre-cast A code 5-core Signal line (1m)	M12 Curved single-ended pre-cast A code 5-core Signal line (1m)
Connection mode	Threaded connection	Threaded connection
Wiring mode	Weld	Weld
Temperature	-25°C~+80°C	-25°C~+80°C
Pollution range	3	3
Protection grade	IP67	IP67
Number of connections	≥500	≥500
Rated voltage	60V AC/DC	60V AC/DC
Rated current	4A	4A
Contact resistance	≤5mΩ	≤5mΩ
Insulation resistance	≥100MΩ	≥100MΩ
Product coating	PVC, shielded	PVC, shielded
Wiring outlet length	1, 2, user-defined	1, 2, user-defined
Product end face		
Connection definition	pin 1 : 24VDV power supply pin 2 : DI signal pin 3 : GND pin 4 : C/Q,IO-Link communication pin 5 : FE, Functional grounding pin 1 : brown pin 2 : white pin 3 : blue pin 4 : black pin 5 : grey	pin 1 : 24VDV power supply pin 2 : DI signal pin 3 : GND pin 4 : C/Q,IO-Link communication pin 5 : FE, Functional grounding pin 1 : brown pin 2 : white pin 3 : blue pin 4 : black pin 5 : grey
Order number	U2-15-01	U2-25-01

M12 IO Signal cable

Product model	M12-S5A/P5A-MWA-1PV	M12-S5A/P5A-MWD-1PV
		
Product description	M12 double-ended pre-cast A code 5-core signal line (1m)	M12 Curved double-ended pre-cast A code 5-core signal line (1m)
Connection mode	Threaded connection	Threaded connection
Wiring mode	Weld	Weld
Temperature	-25°C~+80°C	-25°C~+80°C
Pollution range	3	3
Protection grade	IP67	IP67
Number of connections	≥500	≥500
Rated voltage	60V AC/DC	60V AC/DC
Rated current	4A	4A
Contact resistance	≤5mΩ	≤5mΩ
Insulation resistance	≥100MΩ	≥100MΩ
Product coating	PVC	PVC
Wiring outlet length	1, 2, user-defined	1, 2, user-defined
Product end face		
Connection definition	pin 1 : 24VDV power supply pin 2 : DI signal pin 3 : GND pin 4 : C/Q,IO-Link communication pin 5 : FE, Functional grounding pin 1 : brown pin 2 : white pin 3 : blue pin 4 : black pin 5 : grey	pin 1 : 24VDV power supply pin 2 : DI signal pin 3 : GND pin 4 : C/Q,IO-Link communication pin 5 : FE, Functional grounding pin 1 : brown pin 2 : white pin 3 : blue pin 4 : black pin 5 : grey
Order number	U2-55-01	U2-65-01

M12 Ethernet cable

Product model	M12-P4D/RJ45M-MWA-1PV-S	M12-P4D/P4D-MWA-1PV-S
		
Product description	M12 Straight single-ended pre-cast D-code Ethernet (1m)	M12 double-ended pre-cast D-code Ethernet (1m)
Connection mode	Threaded connection	Threaded connection
Wiring mode	Weld	Weld
Temperature	-25°C~+80°C	-25°C~+80°C
Pollution range	3	3
Protection grade	IP67	IP67
Number of connections	≥500	≥500
Rated voltage	250V AC/DC	250V AC/DC
Rated current	4A	4A
Contact resistance	≤5mΩ	≤5mΩ
Insulation resistance	≥100MΩ	≥100MΩ
Product coating	PVC, shielded	PVC, shielded
Wiring outlet length	1, 2, user-defined	1, 2, user-defined
Product end face		
Connection definition	pin 1 : 24VDV power supply pin 2 : DI signal pin 3 : GND pin 4 : C/Q,IO-Link communication pin 5 : FE, Functional grounding pin 1 : brown pin 2 : white pin 3 : blue pin 4 : black pin 5 : grey	pin 1 : 24VDV power supply pin 2 : DI signal pin 3 : GND pin 4 : C/Q,IO-Link communication pin 5 : FE, Functional grounding pin 1 : brown pin 2 : white pin 3 : blue pin 4 : black pin 5 : grey
Order number	S3-14-01	S3-54-01

Product model	7/8-S5A-MWA-1PV	7/8-S5A/P5A-MWA-1PV
		
Product description	7/8 Auxiliary power supply single-ended pre-cast 5-core hole cable 1m	7/8 auxiliary power supply two-ended pre-cast 5-core cable 1m
Connection mode	Threaded connection	Threaded connection
Wiring mode	Weld	Weld
Temperature	-40°C~+80°C	-40°C~+80°C
Pollution range	3	3
Protection grade	IP67	IP67
Number of connections	≥500	≥500
Rated voltage	300V AC/DC	300V AC/DC
Rated current	—	—
Contact resistance	≤5mΩ	≤5mΩ
Insulation resistance	≥100MΩ	≥100MΩ
Product coating	PVC	PVC
Wiring outlet length	1, 2, user-defined	1, 2, user-defined
Product end face		 
Connection definition	pin 1 : UA- 0V pin 2 : US- 0V pin 3 : FE Functional grounding pin 4 : US+ +24V pin 5 : UA+ +24V pin 1 : brown pin 2 : white pin 3 : blue pin 4 : black pin 5 : grey	pin 1 : UA- 0V pin 2 : US- 0V pin 3 : FE Functional grounding pin 4 : US+ +24V pin 5 : UA+ +24V pin 1 : brown pin 2 : white pin 3 : blue pin 4 : black pin 5 : grey
Order number	U1-35-01	U1-55-01

Product model	M12-P4A-PLAP7	M12-S4A-PLAP9	M12-P4D-PLAP7	M12-S4D-PLAP9
				
Product description	M12 Plastic screw pin type assembly plug 4-core PG7 specification	M12 D code plastic screw hole type assembly plug 4-core PG9 specification	M12 D code plastic screw pin type assembly plug 4-core PG9 specification	M12 D code plastic screw hole type assembly plug 4-core PG9 specification
Order number	10-03-30	10-03-31	10-03-32	10-03-33

M8 connector

Product model	M8-P3A-PLA	M8-S3A-PLA	M8-P4A-PLA	M8-S4A-PLA
				
Product description	M8 Plastic screw pin type assembly plug 3-core	M8 Plastic screw hole type assembly plug 3-core	M8 Plastic screw pin type assembly plug 4-core	M8 Plastic screw hole type assembly plug 4-core
Order number	10-03-34	10-03-35	10-03-36	10-03-37

7/8 connector

Product model	7/8-P4A-PLA	7/8-S4A-PLA	7/8-P5A-PLA	7/8-S5A-PLA
				
Product description	M8 Plastic screw pin type assembly plug 3-core	M8 Plastic screw hole type assembly plug 3-core	M8 Plastic screw pin type assembly plug 4-core	M8 Plastic screw hole type assembly plug 4-core
Order number	10-03-38	10-03-39	10-03-40	10-03-41

Accessory

Product model	M12-V5-S	M8-V5-S	M12-Y-P5A/M12-S5AX2
			
Product description	M12 Slotted outer screw plastic dust cover M12X1	M8 Slotted outer screw plastic dust cover M8X1	M12 5-core Y type plug with chamfer, one revolution two sockets, NoLOGO type, one to one connection.
Order number	10-03-23	10-03-24	10-03-25



Product model quick reference

IO-Link master module

Product name	Product description	Order number
SDPN-8IOL-M12-00	PROFINET 8-channel IO-Link master module coupler (M12 connector)	07-01-01

Product name	Product description	Order number
SDEC-8IOL-M12-00	EtherCAT 8-channel IO-Link master module coupler (M12 connector)	07-01-03

IO-Link slave module I/O module

Product name	Product description	Order number
SDIOL-800N-M12	IO-Link slave module, 8-channel Digital input (NPN) ,M12 connector	07-02-00
SDIOL-801N-M12	IO-Link slave module, 8-channel Digital input (PNP) ,M12 connector	07-02-02
SDIOL-H00N-M12	IO-Link slave module, 16-channel Digital input (NPN) ,M12 connector	07-02-04
SDIOL-H01N-M12	IO-Link slave module, 16-channel Digital input (PNP) ,M12 connector	07-02-06
SDIOL-08N0-M12	IO-Link slave module, 8-channel Digital output (NPN) ,M12 connector	07-03-00
SDIOL-08N1-M12	IO-Link slave module, 8-channel Digital output (PNP) ,M12 connector	07-03-02
SDIOL-0HN0-M12	IO-Link slave module, 16-channel Digital output (NPN) ,M12 connector	07-03-04
SDIOL-0HN1-M12	IO-Link slave module, 16-channel Digital output (PNP) ,M12 connector	07-03-06
SDIOL-8800-M12	IO-Link slave module, 8-channel Digital input (NPN) , 8-channel Digital output (NPN) ,M12 connector	07-02-08
SDIOL-8811-M12	IO-Link slave module, 8-channel Digital input (PNP) , 8-channel Digital output (NPN) ,M12 connector	07-02-10

IO-Link master module

Product name	Product description	Order number
SDPN-4IOL-M12-00	PROFINET 4 channel IO-Link master module coupler (M12 connector) (Under planning)	07-01-00

Product name	Product description	Order number
SDEC-4IOL-M12-00	EtherCAT 4 channel IO-Link master module coupler (M12 connector) (Under planning)	07-01-02

Product name	Product description	Order number
SDEI-4IOL-M12-00	EtherNet/IP 4-channel IO-Link master module coupler (M12 connector) (Under planning)	07-01-04
SDEI-8IOL-M12-00	EtherNet/IP 8-channel IO-Link master module coupler (M12 connector) (Under planning)	07-01-05

IO-Link slave module I/O module

Product name	Product description	Order number
SDIOL-801N-M8	IO-Link slave module, 8-channel Digital input (PNP) ,M8 connector (Under planning)	07-02-03
SDIOL-H00N-M8	IO-Link slave module, 16-channel Digital input (NPN) ,M8 connector (Under planning)	07-02-05
SDIOL-H01N-M8	IO-Link slave module, 16-channel Digital input (PNP) ,M8 connector (Under planning)	07-02-07
SDIOL-08N0-M8	IO-Link slave module, 8-channel Digital output (NPN) ,M8 connector (Under planning)	07-03-01
SDIOL-08N1-M8	IO-Link slave module, 8-channel Digital output (PNP) ,M8 connector (Under planning)	07-03-03
SDIOL-0HN0-M8	IO-Link slave module, 16-channel Digital output (NPN) ,M8 connector (Under planning)	07-03-05
SDIOL-0HN1-M8	IO-Link slave module, 16-channel Digital output (PNP) ,M8 connector (Under planning)	07-03-07
SDIOL-8800-M8	IO-Link slave module, 8-channel Digital input (NPN) , 8-channel Digital output (NPN) ,M8 connector (Under planning)	07-02-09
SDIOL-8811-M8	IO-Link slave module, 8-channel Digital input (PNP) , 8-channel Digital output (NPN) ,M8 connector (Under planning)	07-02-11



Product model quick reference

Accessory cable

Product name	Product description	Order number
M12-S5A/P5A-MWA-1PV-S	M12 Linear double-ended pre-injected IO LINK-M12 5-core shielded cable (1m)	S2-55-01
M12-S5A/P5A-MWD-1PV-S	M12 Curved double-ended pre-injected IO LINK-M12 5-core shielded cable (1m)	S2-65-01
M12-P5A-MWA-1PV	M12 Straight single-ended pre-injected A code 5-core signal line (1m)	U2-15-01
M12-P5A-MWD-1PV	M12 Curved single-ended pre-injected A code 5-core signal line (1m)	U2-25-01
M12-S5A/P5A-MWA-1PV	M12 Double-ended pre-injected A code 5-core signal line (1m)	U2-55-01
M12-S5A/P5A-MWD-1PV	M12 Curved double-ended pre-injected A code 5-core signal line (1m)	U2-65-01
M12-P4D/RJ45M-MWA-1PV-S	M12 Straight single-ended pre-injected D code revolution RJ45 Ethernet (1m)	S3-14-01
M12-P4D/P4D-MWA-1PV-S	M12 Double-ended pre-injected D-code Ethernet (1m)	S3-54-01
7/8-S5A-MWA-1PV	7/8 Auxiliary power single-ended pre-cast 5-core hole cable 1m	U1-35-01
7/8-S5A/P5A-MWA-1PV	7/8 Auxiliary power supply two-end precast 5-core cable 1m	U1-55-01

Accessory M12 connector

Product name	Product description	Order number
M12-P4A-PLAP7	M12 Plastic screw pin type assembly plug 4-core PG7 specification	10-03-30
M12-S4A-PLAP9	M12 Plastic screw pin type assembly plug 4-core PG9 specification	10-03-31
M12-P4D-PLAP7	M12 D code plastic screw pin type assembly plug 4-core PG7 specification	10-03-32
M12-S4D-PLAP9	M12 D code plastic screw pin type assembly plug 4-core PG9 specification	10-03-33

Accessory M8 connector

Product name	Product description	Order number
M8-P3A-PLA	M8 Plastic screw pin type assembly plug 3-core	10-03-34
M8-S3A-PLA	M8 plastic screw hole assembly plug 3-core	10-03-35
M8-P4A-PLA	M8 Plastic screw pin type assembly plug 4-core	10-03-36
M8-S4A-PLA	M8 Plastic screw pin type assembly plug 4-core	10-03-37

Accessory 7/8 connector

Product name	Product description	Order number
7/8-P4A-PLA	7/8 Straight screw pin type plastic assembly plug 4-core	10-03-38
7/8-S4A-PLA	7/8 Straight screw hole type plastic assembly plug 4-core	10-03-39
7/8-P5A-PLA	7/8 Straight screw pin type plastic assembly plug 5 core	10-03-40
7/8-S5A-PLA	7/8 Straight screw hole type plastic assembly plug 5 core	10-03-41

Accessory dust cover /Y type with chamfer plug

Product name	Product description	Order number
M12-V5-S	M12 Slotted outer screw plastic dust coverM12X1	10-03-23
M8-V5-S	M8 Slotted outer screw plastic dust coverM8X1	10-03-24
M12-Y-P5A/M12-S5AX2	M12 5-core Y type with chamfer plug, one revolution two sockets, one to one corresponding wiring	10-03-25