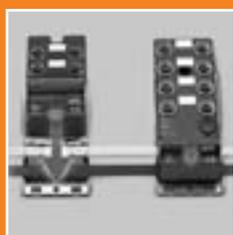
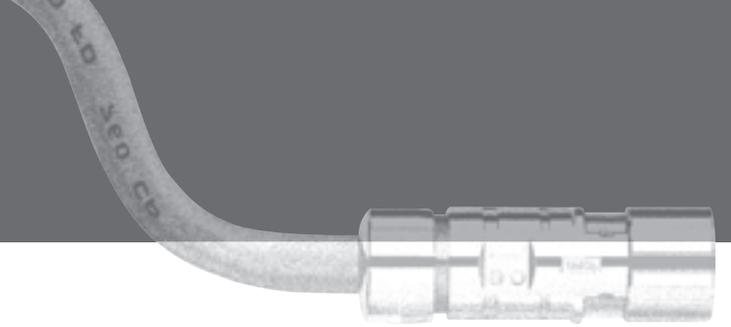


# Unlimited Possibilities

UNITRONIC® Fieldbus System Solutions



# The Lapp Group



Headquarters in Stuttgart



Lapp-Center in Stuttgart



Photo: Dürr AG

A strong partner for automation

The Lapp Group provides a complete range of cables for all manner of industries and markets. Sourcing from a single supplier means competent advice and consistently high quality down to the last detail for designers, planners and manufacturers. Not only that, they can also be sure that all components are perfectly harmonised and enjoy fast, hassle-free ordering. Lapp Group's products are predominantly manufactured in the Lapp Group's own production plants.

Over 40,000 different standard products are currently available off the shelf. In addition, special cables are developed and produced to create individual customer solutions.

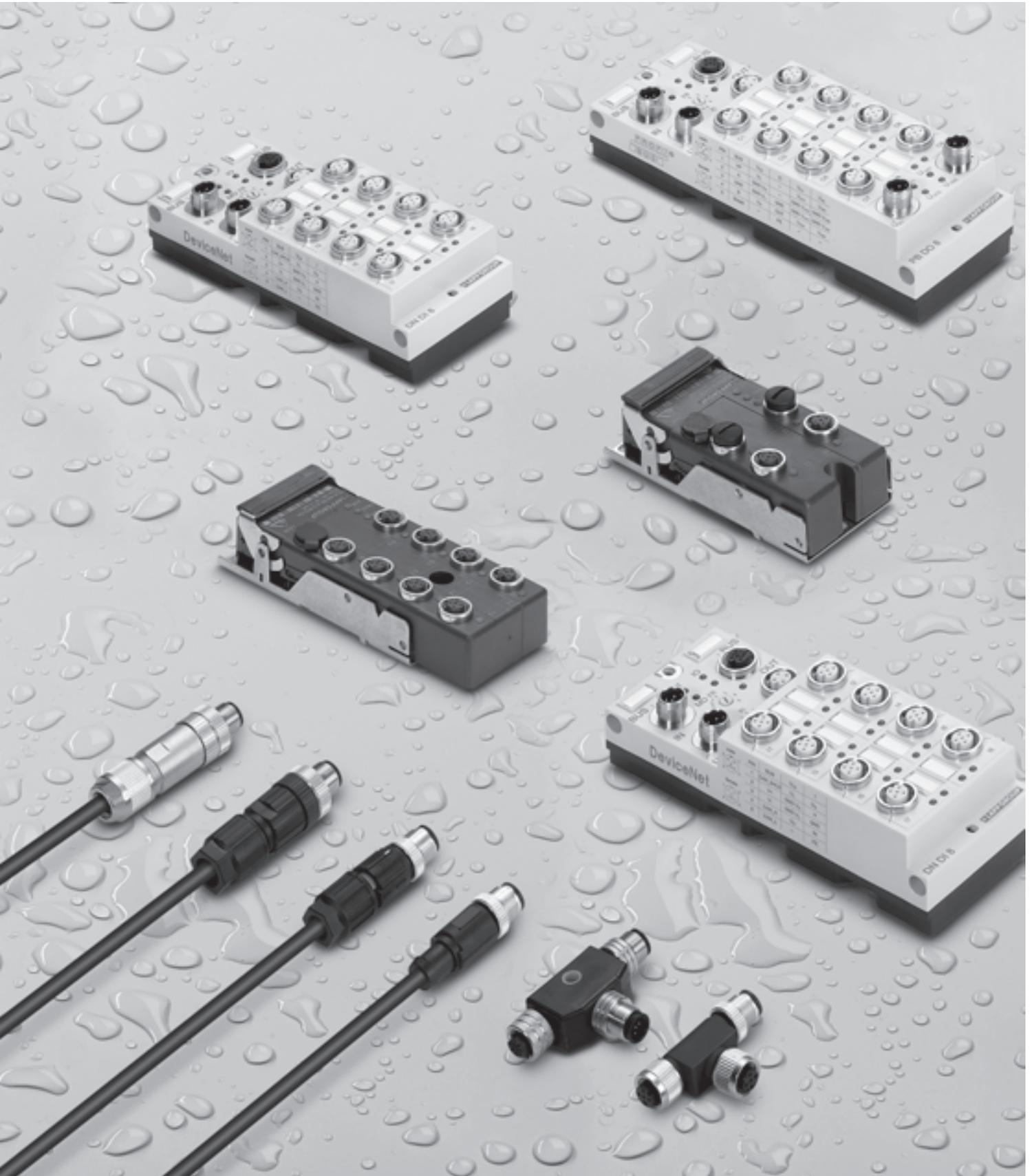
To contact your local Lapp Group representative please visit [www.lappgroup.com/worldwide](http://www.lappgroup.com/worldwide)

# Table of Contents

---

## UNITRONIC® Fieldbus

<b>● 3 pole Sensor/Actuator cordsets</b>	
S/A cable: M12 connector on free conductor end	6
S/A cable: M12 socket on free conductor end	7
S/A cable: M12 connector on M12 socket	8
S/A cable: M12 connector on M8 socket	9
S/A cable: M8 connector on free conductor end	10
S/A cable: M8 socket on free conductor end	11
S/A cable: M8 connector on M8 socket	12
S/A cable: M8 connector on M12 socket	13
<b>● 4 pole Sensor/Actuator cordsets</b>	
S/A cable: M12 connector on free conductor end	14
S/A cable: M12 socket on free conductor end	15
S/A cable: M12 connector on M12 socket	16
S/A cable: M12 connector on M8 socket	17
S/A cable: M8 connector on free conductor end	18
S/A cable: M8 socket on free conductor end	19
S/A cable: M8 connector on M8 socket	20
<b>● 5 pole Sensor/Actuator cordsets</b>	
S/A cable: M12 connector on free conductor end	21
S/A cable: M12 socket on free conductor end	22
Sensor/actuator cable: M12 connector on M12 socket	23
<b>● Cordsets Shielded</b>	
S/A cable: shielded, M12 connector on free conductor end	24
S/A cable: shielded, M12 socket on free conductor end	25
<b>● T+Y connectors</b>	
S/A cable: straight M12 Y plug on 2x free conductor end	26
S/A cable: straight M12 Y plug on 2x M12 socket	27
S/A cable: straight M12 Y plug on 2x M8 socket	28
Y distributor	29
<b>● Valve connectors</b>	
S/A cable: 3-pos., valve connector on free conductor end	30
S/A cable: 3-pos., valve connector on straight M12 plug	31
S/A cable: 5-pos., valve connector on free conductor end, for pressure switch	32
S/A cable: 5-pos., valve connector on straight M12 plug, for pressure switch	33
<b>● Passive Sensor/Actuator-Boxes</b>	
S/A box with M8 slots and master cable	34
S/A box, M8 slots and master cable connection M16/M12	35
S/A box with M12 slots and master cable	36
S/A box with M12 slots and master cable connection	37
<b>● Accessoires for passive S/A-Boxes</b>	
UNITRONIC® SENSOR master cable bulk stock	38
M16 socket with connected master cable	39
M12 socket with connected master cable	40
Screw plug for unoccupied sockets	41
Complete connection hood with 4, 6 or 8 slots	42
<b>● Wall and fieldattachable connectors</b>	
S/A M12 connectors that can be assembled	43
S/A M8 connectors that can be assembled	44
UNITRONIC® SENSOR	45
S/A M12 flush-type connectors with M16 fastening thread	46
S/A M12 flush-type connectors with PG9 fastening thread	47
S/A M8 flush-type connectors	48
Fitting nut for flush-type connectors	49
<b>● Active Sensor-/Actuator-Components</b>	
AS-Interface Modules (IP67)	50
AS-Interface Modules (IP30)	51
PROFIBUS Modules	52
ETHERLINE® PROFIBUS DP Ethernet-Gateways	53
DeviceNet Modules	54
CANopen Modules	55
<b>● Accessories for AS-Interface Modules</b>	
AS-Interface Distributor	56
<b>● Accessories for AS-Interface (IP30) Modules</b>	
AS-Interface counter module	57
AS-Interface long distance repeater	58
AS-Interface power supply	59
AS-Interface network extension	60
AS-Interface plug terminals	61
<b>● BUS System Components</b>	
PROFIBUS cable: M12 connector on free conductor end	62
PROFIBUS Cable: straight M12 connector M12 on straight M12 socket	63
DeviceNet/CANopen Cable, M12 connector on free conductor end	64
S/A DeviceNet/CANOpen cable, M12 connector on M12 socket	65
PROFIBUS M12 connectors that can be assembled	66
Terminating resistor M12 for DeviceNet/CANopen/PROFIBUS	67
M12 T distributor for PROFIBUS	68
S/A T-connector M12 as parallel distributor	69
<b>● Power cable M12</b>	
Power cable: M12 connector or M12 socket on free conductor	70
S/A Power cable: straight M12 connector on straight M12 socket	71
<b>● Servicing and Installing</b>	
Kraftform® adjustable torque screwdriver/	
Kraftform Kompakt® Set	72



# The complete range

## Sensor/Actuator boxes

Sensor/actuator boxes with the standardized connection technology provide connections to all commercially available sensors and -actuators and are the solution for decentralizing small numbers of I/O's. Sensor/actuator boxes can be connected to the Profibus, DeviceNet™ and CANopen field-bus systems. Regardless of -whether you

are installing them on profiles, on flat surfaces or under rough conditions - the assembly concept ensures flexibility and reduces the installation costs. The devices enable assembly in two directions and are thus suitable for every application. The arrangement of connectors minimizes the installation time even under rough conditions.

## Sensor/Actuator cables

A comprehensive range of preassembled conductors with M8-, M12- and valve-connectors for rapid wiring of sensors and actuators in the field are available. Sensor/actu-

ator cables with LEDs can be used for simplified control of signal status. Shielded wiring types are also available for those applications with higher EMV capability.

## AS-i boxes - Easy cabling in the lower field level

The AS-i devices were designed for efficiently networking sensors and actuators in the AS-i network and allow for fast and safe installation with tool-free contacting. AS-i devices can be installed quickly and easily. The locking mechanism allows a tool-free connection to the AS-i flat conductors.

They are pressed into the corresponding guide aids and the module electronics are moved forward. The devices are connected to the AS-i flat conductors using the penetration technique by snapping the hinged section into place.

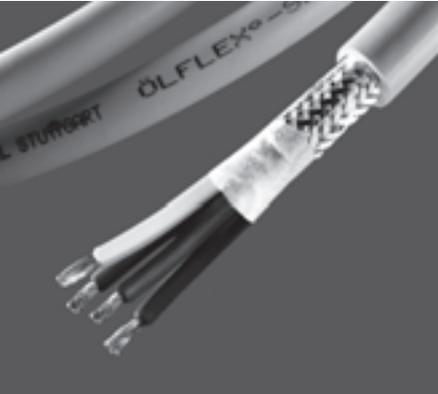
## Sensor/Actuator flush type connectors and customer assembled plug connectors

M8 and M12 flush type connectors with integrated braid for device connection to the PCB is available. Freely customizable plug connectors can be used for rapid assembly of individual wiring

lengths of M8 and M12 sensor/actuator cables. Here it is possible to choose between versions with screw or fast connectors.



# Eight strong brands



## ÖLFLEX® Power- and control cables

ÖLFLEX® is used in machinery, machine tools, system and appliance engineering, measuring, control, heating and air conditioning technologies. For permanent connections or in cable chains, halogen-free

or internationally certified, you can choose from our comprehensive range of standard products.



## UNITRONIC® Data communication systems

Lapp produces a full range of data cables for fast and secure transfers of large volumes of data. From machine electronics and bus systems to super-fast LAN data

networks or highly-versatile applications: We have the data cables you need for virtually any situation.



## HITRONIC® Optical transmission systems

HITRONIC® fibre optic cables are designed to transfer large volumes of data. Communications media via fibre optics are fast, efficient, and secure. Not even electromagnetic interference can affect HITRONIC®

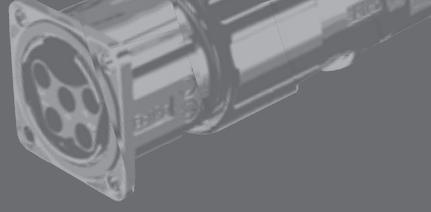
fibre optic cable. The HITRONIC® range of products includes cables for office communications, industrial applications, simplex, duplex, hybrid wiring, or cable chain applications.



## SKINTOP® Cable glands

SKINTOP® cable glands guarantee secure connections every time. Simply thread the cable and twist. That's all! Your cables are perfectly centered, secured, hermetically sealed, and ready for action. Choose from

a wide range of models in plastic or brass, for EX and EMC applications, halogen-free types or anti-kink protection, metric, PG or NPT.



## SILVYN® Protective cable conduit systems and cable carrier systems

In many applications cables have to be additionally protected against mechanical and chemical stress. For this type of application, Lapp Group can supply the universal **SILVYN®** protective cable conduit program. Cable conduits manufactured from metal or plastic material, which can be used with matching glands to form a perfect

system connection. The complete system results in all round protection for cables in indoor and outdoor installations. With **SILVYN® CHAIN**, Lapp Group's widely variable programme of power chains we offer both cable protection and guidance for highly dynamic applications.



## FLEXIMARK® Cable marking products

Labels on single cores, cables, and control cabinets need to remain legible for years to come. This is the best way to keep things well organized and avoid potential problems.

From plastic to durable stainless steel, manual or electronic identification, with **FLEXIMARK®** you can be sure that your labels will last a lifetime.



## EPIC® Industrial connectors

When we talk about secure connections, you can take us at our word. **EPIC®** industrial connectors produce an absolutely secure connection in combination with ÖLFLEX® cables. We provide the right contact for all

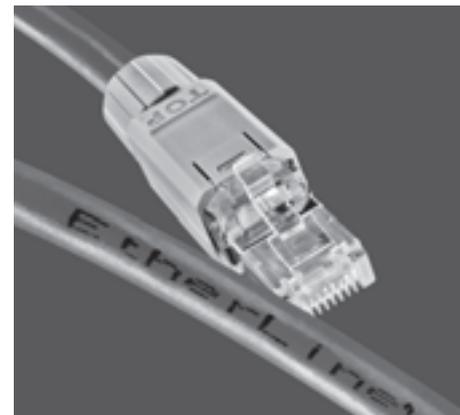
your needs: From rectangular or circular connectors, to housings, inserts, contacts and accessories, bus or fibre optic cable applications.



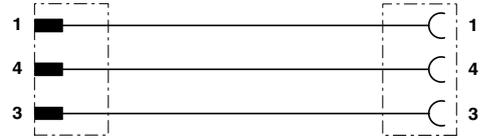
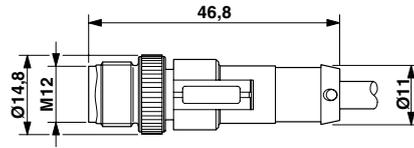
## ETHERLINE® Data communication systems for ETHERNET-Technology

The Lapp Group is now in a position to offer comprehensive system solutions in the field of industrial networking. Its Factory Automation division supplies active network components that are used to supplement existing cable and plug technologies. These include services and security systems incor-

porating firewall solutions, in addition to distribution components such as switches, routers, cables and plug connectors. For its industrial customers, all of this means that a solution from the Lapp Group represents a considerable step forward in terms of security, safety and availability.



## S/A cable: M12 connector on free conductor end



S/A cable: M12 connector on free conductor end

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 3-pos. connector

- Plug design with M12 thread on free conductor end

- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 3 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

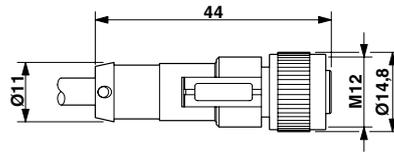
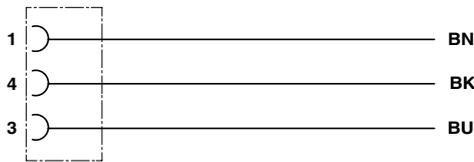
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP68/IP69K
<b>0+</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C Cable, fixed installation -40°C up to +80°C Cable, flexible installation -5°C up to +80°C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	PU
<b>Straight connector</b>					
22260221	AB-C3-M12MS-2,0PUR	2	250	4	1
22260222	AB-C3-M12MS-5,0PUR	5	250	4	1
22260249	AB-C3-M12MS-10,0PUR	10	250	4	1
<b>Angled connector</b>					
22260223	AB-C3-M12MA-2,0PUR	2	250	4	1
22260224	AB-C3-M12MA-5,0PUR	5	250	4	1
22260256	AB-C3-M12MA-10,0PUR	10	250	4	1

Copper price basis: including  
Special cable lengths, other outer sheath materials (e.g. PVC) and individual connector types on request  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: M12 socket on free conductor end



S/A cable: M12 socket on free conductor end

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 3-pos. connector

- Socket design with M12 thread on free conductor end
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 3 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

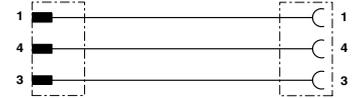
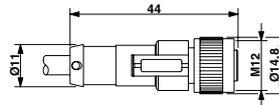
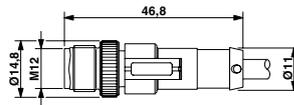
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP68/IP69K
<b>0-1</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C Cable, fixed installation -40 °C up to +80 °C Cable, flexible installation -5 °C up to +80 °C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	Status display	PU
<b>Straight socket</b>						
22260257	AB-C3-2,0PUR-M12FS	2	250	4	No	1
22260250	AB-C3-5,0PUR-M12FS	5	250	4	No	1
22260251	AB-C3-10,0PUR-M12FS	10	250	4	No	1
<b>Angled socket</b>						
22260258	AB-C3-2,0PUR-M12FA	2	250	4	No	1
22260259	AB-C3-5,0PUR-M12FA	5	250	4	No	1
22260260	AB-C3-10,0PUR-M12FA	10	250	4	No	1
<b>Straight socket</b>						
22260252	AB-C3-2,0PUR-M12FS-2L	2	24	4	2 LEDs	1
22260265	AB-C3-5,0PUR-M12FS-2L	5	24	4	2 LEDs	1
22260266	AB-C3-10,0PUR-M12FS-2L	10	24	4	2 LEDs	1
<b>Angled socket</b>						
22260253	AB-C3-2,0PUR-M12FA-2L	2	24	4	2 LEDs	1
22260254	AB-C3-5,0PUR-M12FA-2L	5	24	4	2 LEDs	1
22260255	AB-C3-10,0PUR-M12FA-2L	10	24	4	2 LEDs	1

Copper price basis: including  
Special cable lengths, other outer sheath materials (e.g. PVC) and individual connector types on request  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: M12 connector on M12 socket



S/A cable: M12 connector on M12 socket

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 3-pos. connector

- Plug design with M12 thread on socket with M12 thread
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 3 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

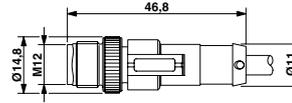
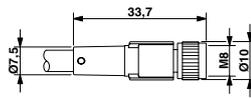
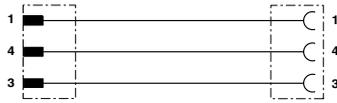
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP68/IP69K
<b>0+</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C Cable, fixed installation -40°C up to +80 °C Cable, flexible installation -5 °C up to +80 °C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	Status display	PU
<b>Straight connector on straight socket</b>						
22260233	AB-C3-M12MS-0,3PUR-M12FS	0.3	250	4	No	1
22260234	AB-C3-M12MS-0,6PUR-M12FS	0.6	250	4	No	1
22260235	AB-C3-M12MS-1,0PUR-M12FS	1	250	4	No	1
22260236	AB-C3-M12MS-2,0PUR-M12FS	2	250	4	No	1
<b>Straight connector on angled socket</b>						
22260237	AB-C3-M12MS-0,3PUR-M12FA	0.3	250	4	No	1
22260238	AB-C3-M12MS-0,6PUR-M12FA	0.6	250	4	No	1
22260239	AB-C3-M12MS-1,0PUR-M12FA	1	250	4	No	1
22260240	AB-C3-M12MS-2,0PUR-M12FA	2	250	4	No	1
<b>Straight connector on angled socket with LEDs</b>						
22260261	AB-C3-M12MS-0,3PUR-M12FA-2L	0.3	24	4	2 LEDs	1
22260262	AB-C3-M12MS-0,6PUR-M12FA-2L	0.6	24	4	2 LEDs	1
22260263	AB-C3-M12MS-1,0PUR-M12FA-2L	1	24	4	2 LEDs	1
22260264	AB-C3-M12MS-2,0PUR-M12FA-2L	2	24	4	2 LEDs	1

Copper price basis: including  
 Special cable lengths, other outer sheath materials (e.g. PVC) and individual connector types on request  
 For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: M12 connector on M8 socket



S/A cable: M12 connector on M8 socket

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 3-pos. connector

- Plug design with M12 thread on socket with M8 thread
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 3 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

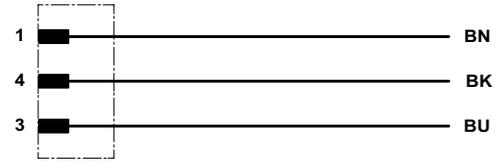
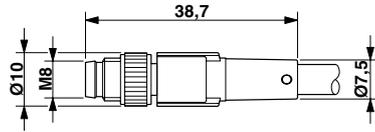
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP68/IP69K
<b>0-1</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C Cable, fixed installation -40 °C up to +80 °C Cable, flexible installation -5 °C up to +80 °C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	Status display	PU
<b>Straight connector on straight socket</b>						
22260225	AB-C3-M12MS-0,3PUR-M8FS	0,3	60	3	No	1
22260226	AB-C3-M12MS-0,6PUR-M8FS	0,6	60	3	No	1
22260227	AB-C3-M12MS-1,0PUR-M8FS	1	60	3	No	1
22260228	AB-C3-M12MS-2,0PUR-M8FS	2	60	3	No	1
<b>Straight connector on angled socket</b>						
22260229	AB-C3-M12MS-0,3PUR-M8FA	0,3	60	3	No	1
22260230	AB-C3-M12MS-0,6PUR-M8FA	0,6	60	3	No	1
22260231	AB-C3-M12MS-1,0PUR-M8FA	1	60	3	No	1
22260232	AB-C3-M12MS-2,0PUR-M8FA	2	60	3	No	1
<b>Straight connector on angled socket with LEDs</b>						
22260267	AB-C3-M12MS-0,3PUR-M8FA-2L	0,3	24	3	2 LEDs	1
22260268	AB-C3-M12MS-0,6PUR-M8FA-2L	0,6	24	3	2 LEDs	1
22260269	AB-C3-M12MS-1,0PUR-M8FA-2L	1	24	3	2 LEDs	1
22260270	AB-C3-M12MS-2,0PUR-M8FA-2L	2	24	3	2 LEDs	1

Copper price basis: including  
 Special cable lengths, other outer sheath materials (e.g. PVC) and individual connector types on request  
 For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: M8 connector on free conductor end



S/A cable: M8 connector on free conductor end

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 3-pos. connector

- Plug design with M8 thread on free conductor end
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 3 x 0.25 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

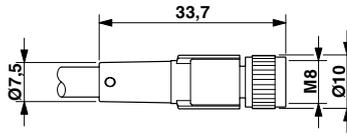
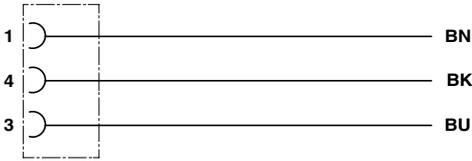
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP68/IP69K
<b>0+</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C Cable, fixed installation -40°C up to +80°C Cable, flexible installation -5°C up to +80°C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	PU
<b>Straight connector</b>					
22260204	AB-C3-M8MS-2,0PUR	2	60	3	1
22260205	AB-C3-M8MS-5,0PUR	5	60	3	1
22260218	AB-C3-M8MS-10,0PUR	10	60	3	1

Copper price basis: including  
 Special cable lengths, other outer sheath materials (e.g. PVC) and individual connector types on request  
 For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: M8 socket on free conductor end



S/A cable: M8 socket on free conductor end

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 3-pos. connector

- Socket design with M8 thread on free conductor end
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 3 x 0.25 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

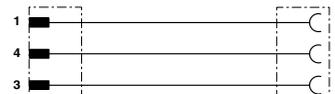
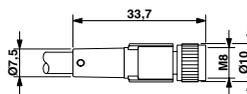
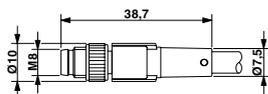
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP68/IP69K
<b>0-1</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C Cable, fixed installation -40 °C up to +80 °C Cable, flexible installation -5 °C up to +80 °C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>n</sub> in V	Nominal current I <sub>n</sub> in A	Status display	PU
<b>Straight socket</b>						
22260202	AB-C3-2,0PUR-M8FS	2	60	3	No	1
22260200	AB-C3-5,0PUR-M8FS	5	60	3	No	1
22260219	AB-C3-10,0PUR-M8FS	10	60	3	No	1
<b>Angled socket</b>						
22260203	AB-C3-2,0PUR-M8FA	2	60	3	No	1
22260201	AB-C3-5,0PUR-M8FA	5	60	3	No	1
22260220	AB-C3-10,0PUR-M8FA	10	60	3	No	1
<b>Angled socket with LEDs</b>						
22260275	AB-C3-2,0PUR-M8FA-2L	2	24	3	2 LEDs	1
22260276	AB-C3-5,0PUR-M8FA-2L	5	24	3	2 LEDs	1
22260277	AB-C3-10,0PUR-M8FA-2L	10	24	3	2 LEDs	1

Copper price basis: including  
 Special cable lengths, other outer sheath materials (e.g. PVC) and individual connector types on request  
 For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

# S/A cable: M8 connector on M8 socket



S/A cable: M8 connector on M8 socket

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 3-pos. connector

- Plug design with M8 thread on socket with M8 thread
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 3 x 0.25 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

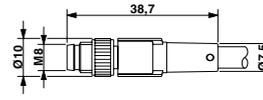
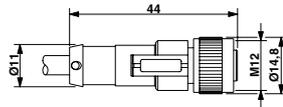
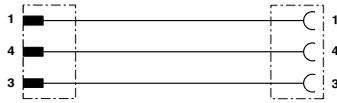
**Technical data**

<b>IP</b>	<b>Degree of protection</b>
	IP65/IP68/IP69K
<b>0+</b>	<b>Ambient temperature (operation)</b>
	Plug / socket -25 °C to +90 °C Cable, fixed installation -40°C up to +80°C Cable, flexible installation -5°C up to +80°C
	<b>Contact material</b>
	CuSn
	<b>Contact surface material</b>
	Ni/Au
	<b>Coding</b>
	A - Standard
	<b>Material, knurls</b>
	Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b>
	TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	Status display	PU
<b>Straight connector on straight socket</b>						
22260206	AB-C3-M8MS-0,3PUR-M8FS	0.3	60	3	No	1
22260207	AB-C3-M8MS-0,6PUR-M8FS	0.6	60	3	No	1
22260208	AB-C3-M8MS-1,0PUR-M8FS	1	60	3	No	1
22260209	AB-C3-M8MS-2,0PUR-M8FS	2	60	3	No	1
<b>Straight connector on angled socket</b>						
22260210	AB-C3-M8MS-0,3PUR-M8FA	0.3	60	3	No	1
22260211	AB-C3-M8MS-0,6PUR-M8FA	0.6	60	3	No	1
22260212	AB-C3-M8MS-1,0PUR-M8FA	1	60	3	No	1
22260213	AB-C3-M8MS-2,0PUR-M8FA	2	60	3	No	1
<b>Straight connector on angled socket with LEDs</b>						
22260214	AB-C3-M8MS-0,3PUR-M8FA-2L	0.3	24	3	2 LEDs	1
22260215	AB-C3-M8MS-0,6PUR-M8FA-2L	0.6	24	3	2 LEDs	1
22260216	AB-C3-M8MS-1,0PUR-M8FA-2L	1	24	3	2 LEDs	1
22260217	AB-C3-M8MS-2,0PUR-M8FA-2L	2	24	3	2 LEDs	1

Copper price basis: including  
 Special cable lengths, other outer sheath materials (e.g. PVC) and individual connector types on request  
 For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: M8 connector on M12 socket



S/A cable: M8 connector on M12 socket

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 3-pos. connector

- Plug design with M8 thread on socket with M12 thread
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 3 x 0.25 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP68/IP69K
<b>0-1</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C Cable, fixed installation -40 °C up to +80 °C Cable, flexible installation -5 °C up to +80 °C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

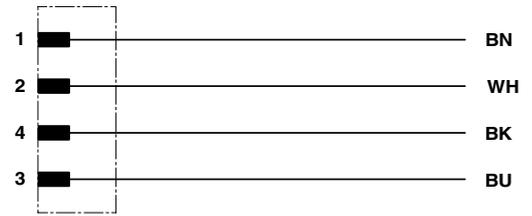
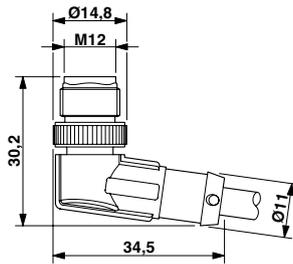
Part number	Article designation	Length in m	Nominal voltage U <sub>n</sub> in V	Nominal current I <sub>n</sub> in A	Status display	PU
<b>Straight connector on straight socket</b>						
22260241	AB-C3-M8MS-0,3PUR-M12FS	0.3	60	3	No	1
22260242	AB-C3-M8MS-0,6PUR-M12FS	0.6	60	3	No	1
22260243	AB-C3-M8MS-1,0PUR-M12FS	1	60	3	No	1
22260244	AB-C3-M8MS-2,0PUR-M12FS	2	60	3	No	1
<b>Straight connector on angled socket</b>						
22260245	AB-C3-M8MS-0,3PUR-M12FA	0.3	60	3	No	1
22260246	AB-C3-M8MS-0,6PUR-M12FA	0.6	60	3	No	1
22260247	AB-C3-M8MS-1,0PUR-M12FA	1	60	3	No	1
22260248	AB-C3-M8MS-2,0PUR-M12FA	2	60	3	No	1
<b>Straight connector on angled socket with LEDs</b>						
22260271	AB-C3-M8MS-0,3PUR-M12FA-2L	0.3	24	3	2 LEDs	1
22260272	AB-C3-M8MS-0,6PUR-M12FA-2L	0.6	24	3	2 LEDs	1
22260273	AB-C3-M8MS-1,0PUR-M12FA-2L	1	24	3	2 LEDs	1
22260274	AB-C3-M8MS-2,0PUR-M12FA-2L	2	24	3	2 LEDs	1

Copper price basis: including

Special cable lengths, other outer sheath materials (e.g. PVC) and individual connector types on request

For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: M12 connector on free conductor end



S/A cable: M12 connector on free conductor end

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

- Plug design with M12 thread on free conductor end
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 4 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, white, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

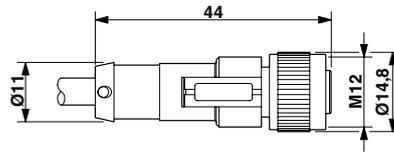
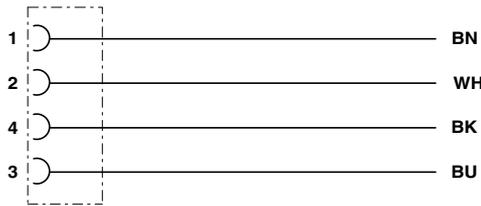
**Technical data**

<b>IP</b>	<b>Degree of protection</b>
	IP65/IP68/IP69K
<b>0+</b>	<b>Ambient temperature (operation)</b>
	Plug / socket -25 °C to +90 °C Cable, fixed installation -40°C up to +80 °C Cable, flexible installation -5°C up to +80 °C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	PU
<b>Straight connector</b>					
22260320	AB-C4-M12MS- 2,0PUR	2	250	4	1
22260321	AB-C4-M12MS- 5,0PUR	5	250	4	1
22260342	AB-C4-M12MS-10,0PUR	10	250	4	1
<b>Angled connector</b>					
22260301	AB-C4-M12MA-2,0PUR	2	250	4	1
22260302	AB-C4-M12MA-5,0PUR	5	250	4	1
22260303	AB-C4-M12MA-10,0PUR	10	250	4	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: M12 socket on free conductor end



S/A cable: M12 socket on free conductor end

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 4-pos. connector

- Socket design with M12 thread on free conductor end
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 4 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, white, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

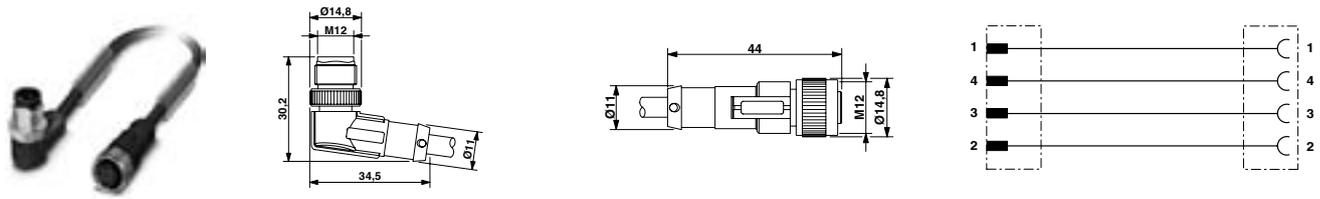
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP68/IP69K
<b>0-1</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C Cable, fixed installation -40 °C up to +80 °C Cable, flexible installation -5 °C up to +80 °C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	Status display	PU
<b>Straight socket</b>						
22260322	AB-C4- 2,0PUR-M12FS	2	250	4	No	1
22260323	AB-C4- 5,0PUR-M12FS	5	250	4	No	1
22260343	AB-C4-10,0PUR-M12FS	10	250	4	No	1
<b>Angled socket</b>						
22260324	AB-C4- 2,0PUR-M12FA	2	250	4	No	1
22260325	AB-C4- 5,0PUR-M12FA	5	250	4	No	1
22260341	AB-C4-10,0PUR-M12FA	10	250	4	No	1
<b>Straight socket with LEDs</b>						
22260344	AB-C4- 2,0PUR-M12FS-2L	2	24	4	2 LEDs	1
22260345	AB-C4- 5,0PUR-M12FS-2L	5	24	4	2 LEDs	1
22260346	AB-C4-10,0PUR-M12FS-2L	10	24	4	2 LEDs	1
<b>Angled socket with LEDs</b>						
22260326	AB-C4- 2,0PUR-M12FA-3L	2	24	4	3 LEDs	1
22260327	AB-C4- 5,0PUR-M12FA-3L	5	24	4	3 LEDs	1
22260340	AB-C4-10,0PUR-M12FA-3L	10	24	4	3 LEDs	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: M12 connector on M12 socket



S/A cable: M12 connector on M12 socket

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 4-pos. connector

- Plug design with M12 thread on socket with M12 thread
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 4 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, white, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

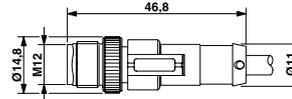
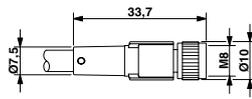
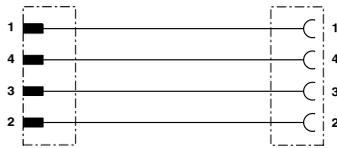
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP68/IP69K
<b>0+T</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C Cable, fixed installation -40°C up to +80°C Cable, flexible installation -5 °C up to +80 °C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	Status display	PU
<b>Straight connector on straight socket</b>						
22260328	AB-C4-M12MS-0,3PUR-M12FS	0,3	250	4	No	1
22260329	AB-C4-M12MS-0,6PUR-M12FS	0,6	250	4	No	1
22260330	AB-C4-M12MS-1,0PUR-M12FS	1	250	4	No	1
22260331	AB-C4-M12MS-2,0PUR-M12FS	2	250	4	No	1
<b>Straight connector on angled socket</b>						
22260332	AB-C4-M12MS-0,3PUR-M12FA	0,3	250	4	No	1
22260333	AB-C4-M12MS-0,6PUR-M12FA	0,6	250	4	No	1
22260334	AB-C4-M12MS-1,0PUR-M12FA	1	250	4	No	1
22260335	AB-C4-M12MS-2,0PUR-M12FA	2	250	4	No	1
<b>Angled connector on straight socket</b>						
22260304	AB-C4-M12MA-0,3PUR-M12FS	0,3	250	4	No	1
22260305	AB-C4-M12MA-0,6PUR-M12FS	0,6	250	4	No	1
22260306	AB-C4-M12MA-1,0PUR-M12FS	1	250	4	No	1
22260307	AB-C4-M12MA-2,0PUR-M12FS	2	250	4	No	1
<b>Straight connector on angled socket with LEDs</b>						
22260336	AB-C4-M12MS-0,3PUR-M12FA-3L	0,3	24	4	3 LEDs	1
22260337	AB-C4-M12MS-0,6PUR-M12FA-3L	0,6	24	4	3 LEDs	1
22260338	AB-C4-M12MS-1,0PUR-M12FA-3L	1	24	4	3 LEDs	1
22260339	AB-C4-M12MS-2,0PUR-M12FA-3L	2	24	4	3 LEDs	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: M12 connector on M8 socket



S/A cable: M12 connector on M8 socket

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 4-pos. connector

- Plug design with M12 thread on socket with M8 thread
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 4 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

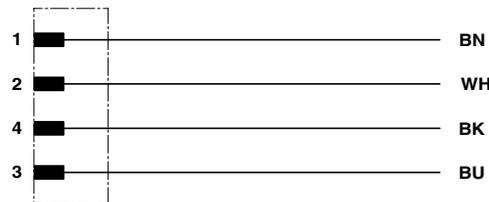
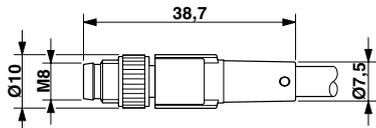
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP68/IP69K
<b>0-1</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C Cable, fixed installation -40 °C up to +80 °C Cable, flexible installation -5 °C up to +80 °C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	Status display	PU
<b>Straight connector on straight socket</b>						
22260347	AB-C4-M12MS-0,3PUR-M8FS	0,3	30	3	No	1
22260349	AB-C4-M12MS-0,6PUR-M8FS	0,6	30	3	No	1
22260350	AB-C4-M12MS-1,0PUR-M8FS	1	30	3	No	1
22260348	AB-C4-M12MS-2,0PUR-M8FS	2	30	3	No	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: M8 connector on free conductor end



S/A cable: M8 connector on free conductor end

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 4-pos. connector

- Plug design with M8 thread on free conductor end
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 4 x 0.25 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, white, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

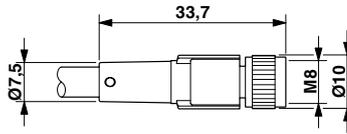
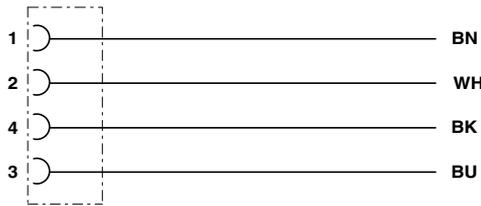
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP68/IP69K
<b>0+</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C Cable, fixed installation -40°C up to +80°C Cable, flexible installation -5 °C up to +80 °C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	PU
<b>Straight connector</b>					
22260300	AB-C4-M8MS-2,0PUR	2	30	3	1
22260308	AB-C4-M8MS-5,0PUR	5	30	3	1
22260318	AB-C4-M8MS-10,0PUR	10	30	3	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: M8 socket on free conductor end



S/A cable: M8 socket on free conductor end

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 4-pos. connector

- Socket design with M8 thread on free conductor end
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 4 x 0.25 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, white, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

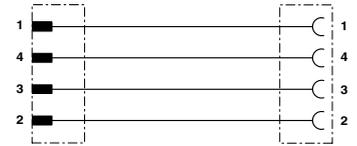
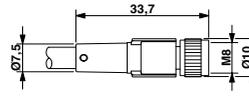
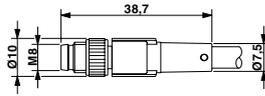
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP68/IP69K
<b>0-1</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C Cable, fixed installation -40 °C up to +80 °C Cable, flexible installation -5 °C up to +80 °C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>n</sub> in V	Nominal current I <sub>n</sub> in A	Status display	PU
<b>Straight socket</b>						
22260309	AB-C4- 2,0PUR-M8FS	2	30	3	No	1
22260310	AB-C4- 5,0PUR-M8FS	5	30	3	No	1
22260317	AB-C4-10,0PUR-M8FS	10	30	3	No	1
<b>Angled socket</b>						
22260311	AB-C4- 2,0PUR-M8FA	2	30	3	No	1
22260312	AB-C4- 5,0PUR-M8FA	5	30	3	No	1
22260319	AB-C4-10,0PUR-M8FA	10	30	3	No	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: M8 connector on M8 socket



S/A cable: M8 connector on M8 socket

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

- Plug design with M8 thread on socket with M8 thread
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 4 x 0.25 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, white, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

**Product features**

- 4-pos. connector

**Technical data**

**IP** Degree of protection  
IP65/IP68/IP69K

**0+** Ambient temperature (operation)  
Plug / socket  
-25 °C to +90 °C  
Cable, fixed installation  
-40°C up to +80°C  
Cable, flexible installation  
-5°C up to +80°C

**Contact material**  
CuSn

**Contact surface material**  
Ni/Au

**Coding**  
A - Standard

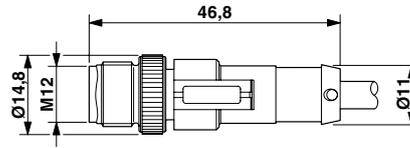
**Material, knurls**  
Zinc die-cast, (nickel-plated)

**Material of grip body**  
TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	Status display	PU
<b>Straight connector on straight socket</b>						
22260313	AB-C4-M8MS-0,3PUR-M8FS	0.3	30	3	No	1
22260314	AB-C4-M8MS-0,6PUR-M8FS	0.6	30	3	No	1
22260315	AB-C4-M8MS-1,0PUR-M8FS	1	30	3	No	1
22260316	AB-C4-M8MS-2,0PUR-M8FS	2	30	3	No	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: M12 connector on free conductor end



S/A cable: M12 connector on free conductor end

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 5-pos. connector

- Plug design with M12 thread on free conductor end
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 5 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, white, blue, black, green/yellow
- Outer sheath: PUR, halogen-free
- Sheath color black

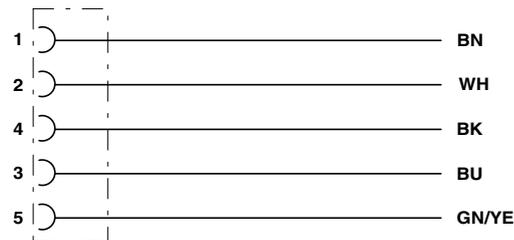
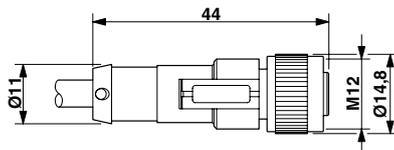
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP68/IP69K
<b>0-1</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C Cable, fixed installation -40 °C up to +80 °C Cable, flexible installation -5 °C up to +80 °C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>n</sub> in V	Nominal current I <sub>n</sub> in A	PU
<b>Straight connector</b>					
22260400	AB-C5-M12MS-2,0PUR	2	60	4	1
22260401	AB-C5-M12MS-5,0PUR	5	60	4	1
22260414	AB-C5-M12MS-10,0PUR	10	60	4	1
<b>Angled connector</b>					
22260402	AB-C5-M12MA-2,0PUR	2	60	4	1
22260403	AB-C5-M12MA-5,0PUR	5	60	4	1
22260417	AB-C5-M12MA-10,0PUR	10	60	4	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable:, M12 socket on free conductor end



S/A cable:, M12 socket on free conductor end

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 5-pos. connector

- Socket design with M12 thread on free conductor end
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 5 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, white, blue, black, green/yellow
- Outer sheath: PUR, halogen-free
- Sheath color black

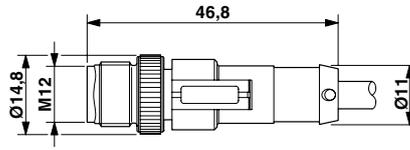
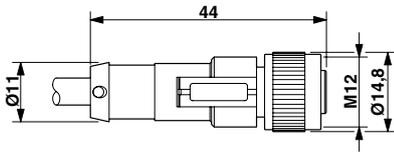
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP68/IP69K
<b>0+</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C Cable, fixed installation -40°C up to +80°C Cable, flexible installation -5 °C up to +80 °C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>n</sub> in V	Nominal current I <sub>n</sub> in A	Status display	PU
<b>Straight socket</b>						
22260404	AB-C5- 2,0PUR-M12FS	2	60	4	No	1
22260405	AB-C5- 5,0PUR-M12FS	5	60	4	No	1
22260415	AB-C5-10,0PUR-M12FS	10	60	4	No	1
<b>Angled socket</b>						
22260406	AB-C5- 2,0PUR-M12FA	2	60	4	No	1
22260407	AB-C5- 5,0PUR-M12FA	5	60	4	No	1
22260418	AB-C5-10,0PUR-M12FA	10	60	4	No	1
<b>Angled socket with LEDs</b>						
22260408	AB-C5- 2,0PUR-M12FA-3L	2	24	4	3 LEDs	1
22260409	AB-C5- 5,0PUR-M12FA-3L	5	24	4	3 LEDs	1
22260416	AB-C5-10,0PUR-M12FA-3L	10	24	4	3 LEDs	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## Sensor/actuator cable: M 12 connector on M 12 socket



Sensor/actuator cable: M 12 connector on M 12 socket

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 5-pos. connector

- Plug design with M12 thread on socket with M12 thread
- Drag chain suitable
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 5 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, white, blue, black, green/yellow
- Outer sheath: PUR, halogen-free
- Sheath color black

**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP68/IP69K
<b>0-1</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C Cable, fixed installation -40 °C up to +80 °C Cable, flexible installation -5 °C up to +80 °C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>n</sub> in V	Nominal current I <sub>n</sub> in A	Status display	PU
<b>Straight connector on straight socket</b>						
22260410	AB-C5-M12MS-0,3PUR-M12FS	0.3	60	4	No	1
22260411	AB-C5-M12MS-0,6PUR-M12FS	0.6	60	4	No	1
22260412	AB-C5-M12MS-1,0PUR-M12FS	1	60	4	No	1
22260413	AB-C5-M12MS-2,0PUR-M12FS	2	60	4	No	1

Copper price basis: including  
 Special cable lengths, other outer sheath materials (e.g. PVC) and individual connector types on request  
 For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

# S/A cable: shielded, M12 connector on free conductor end



**Info**

- Drag chain suitable

S/A cable: shielded, M12 connector on free conductor end

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

- Plug design with M12 thread on free conductor end
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 3 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)  
4 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)  
5 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)
- Outer sheath: PUR, halogen-free, shielded
- Sheath color black

**Product features**

- 3, 4 and 5-position version

**Technical data**

**IP** Degree of protection  
IP65/IP67/IP69K

**0+** Ambient temperature (operation)  
Plug / socket  
-25 °C to +90 °C  
Cable, fixed installation  
-25 °C up to +80 °C  
Cable, flexible installation  
-5 °C up to +80 °C

**Contact material**  
CuSn

**Contact surface material**  
Ni/Au

**Coding**  
A - Standard

**Material, knurls**  
Zinc die-cast, (nickel-plated)

**Material of grip body**  
TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	PU
<b>3 pole straight connector</b>					
22260453	AB-C3-M12MS- 2,0PUR-SH	2	250	4	1
22260454	AB-C3-M12MS- 5,0PUR-SH	5	250	4	1
22260455	AB-C3-M12MS-10,0PUR-SH	10	250	4	1
<b>4 pole straight connector</b>					
22260459	AB-C4-M12MS- 2,0PUR-SH	2	250	4	1
22260460	AB-C4-M12MS- 5,0PUR-SH	5	250	4	1
22260461	AB-C4-M12MS-10,0PUR-SH	10	250	4	1
<b>5 pole straight connector</b>					
22260465	AB-C5-M12MS- 2,0PUR-SH	2	60	4	1
22260466	AB-C5-M12MS- 5,0PUR-SH	5	60	4	1
22260467	AB-C5-M12MS-10,0PUR-SH	10	60	4	1

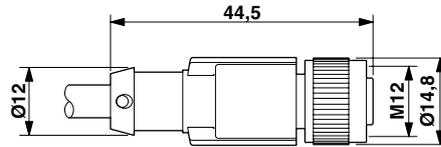
Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: shielded, M 12 socket on free conductor end



**Info**

- Drag chain suitable



S/A cable: shielded, M 12 socket on free conductor end

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 3, 4 and 5-position version

- Socket design with M 12 thread on free conductor end
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 3 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)  
4 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)  
5 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)
- Outer sheath: PUR, halogen-free, shielded
- Sheath color black

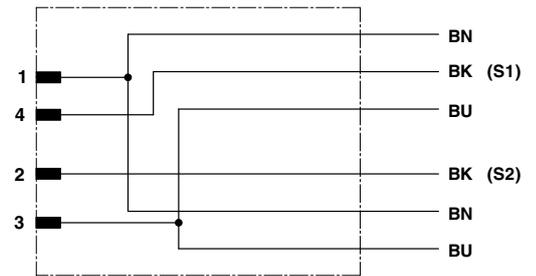
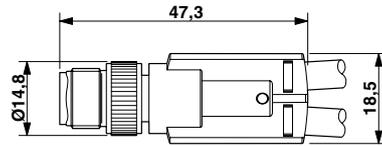
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP67/IP69K
<b>0</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C Cable, fixed installation -25 °C up to +80 °C Cable, flexible installation -5 °C up to +80 °C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	Status display	PU
<b>3 pole straight socket</b>						
22260450	AB-C3- 2,0PUR-M12FS-SH	2	250	4	No	1
22260451	AB-C3- 5,0PUR-M12FS-SH	5	250	4	No	1
22260452	AB-C3-10,0PUR-M12FS-SH	10	250	4	No	1
<b>4 pole straight socket</b>						
22260456	AB-C4- 2,0PUR-M12FS-SH	2	250	4	No	1
22260457	AB-C4- 5,0PUR-M12FS-SH	5	250	4	No	1
22260458	AB-C4-10,0PUR-M12FS-SH	10	250	4	No	1
<b>5 pole straight socket</b>						
22260462	AB-C5- 2,0PUR-M12FS-SH	2	60	4	No	1
22260463	AB-C5- 5,0PUR-M12FS-SH	5	60	4	No	1
22260464	AB-C5-10,0PUR-M12FS-SH	10	60	4	No	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: straight M 12 Y plug on 2x free conductor end



S/A cable: straight M 12 Y plug on 2x free conductor end

**■ Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**■ Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**■ Product features**

- 4-pos. Y connector M 12

- Design as straight M 12 Y plug with 2 conductor exits
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**■ Approvals (Norm references)**



**■ Design**

- Permanently flexible control cable
- Design: 3 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

**■ Technical data**

<b>IP</b>	<b>Degree of protection</b>
	IP65/IP68/IP69K
<b>0+</b>	<b>Ambient temperature (operation)</b>
	Plug / socket -25 °C to +90 °C Cable, fixed installation -40°C up to +80°C Cable, flexible installation -5°C up to +80°C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal current I <sub>N</sub> in A	PU
<b>Y plug on 2x free conductor end</b>				
22260500	AB-C3-M12Y-2,0PUR	2	4	1
22260513	AB-C3-M12Y-5,0PUR	5	4	1
22260526	AB-C3-M12Y-10,0PUR	10	4	1

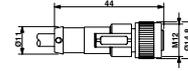
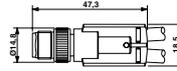
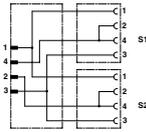
Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: straight M 12 Y plug on 2x M 12 socket



**Info**

- PIN 2+4 are bridged on M 12 sockets



S/A cable: straight M 12 Y plug on 2x M 12 socket

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 4-pos. Y connector M 12 on 2 x M 12 socket (4-pos.)

- Design as straight M 12 Y plug with 2 conductor exits
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 3 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

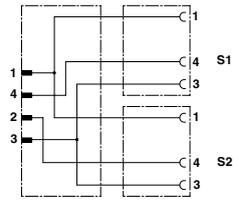
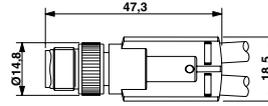
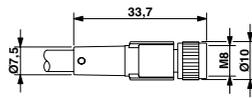
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP68/IP69K
<b>0+</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C Cable, fixed installation -40 °C up to +80 °C Cable, flexible installation -5 °C up to +80 °C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal current I <sub>n</sub> in A	Status display	PU
<b>Y plug on straight socket</b>					
22260501	AB-C3-M12Y-0,3PUR-M12FS-B	0.3	4	No	1
22260502	AB-C3-M12Y-0,6PUR-M12FS-B	0.6	4	No	1
22260503	AB-C3-M12Y-1,0PUR-M12FS-B	1	4	No	1
22260504	AB-C3-M12Y-2,0PUR-M12FS-B	2	4	No	1
<b>Y plug on angled socket</b>					
22260505	AB-C3-M12Y-0,3PUR-M12FA-B	0.3	4	No	1
22260506	AB-C3-M12Y-0,6PUR-M12FA-B	0.6	4	No	1
22260507	AB-C3-M12Y-1,0PUR-M12FA-B	1	4	No	1
22260508	AB-C3-M12Y-2,0PUR-M12FA-B	2	4	No	1
<b>Y plug on angled socket with LEDs</b>					
22260509	AB-C3-M12Y-0,3PUR-M12FA-2L-B	0.3	4	2 LEDs	1
22260510	AB-C3-M12Y-0,6PUR-M12FA-2L-B	0.6	4	2 LEDs	1
22260511	AB-C3-M12Y-1,0PUR-M12FA-2L-B	1	4	2 LEDs	1
22260512	AB-C3-M12Y-2,0PUR-M12FA-2L-B	2	4	2 LEDs	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: straight M12 Y plug on 2x M8 socket



S/A cable: straight M12 Y plug on 2x M8 socket

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 4-pos. Y connector M12 on 2 x M8 socket (3-pos.)

- Design as straight M12 Y plug with 2 conductor exits
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 3 x 0.25 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colors brown, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

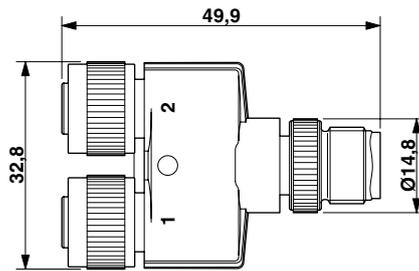
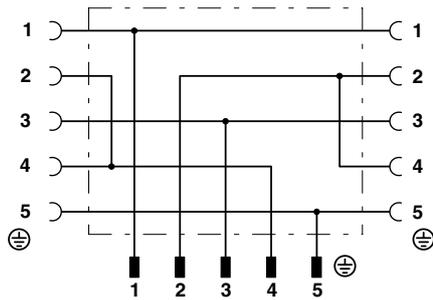
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP68/IP69K
<b>0+</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C Cable, fixed installation -40°C up to +80°C Cable, flexible installation -5°C up to +80°C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal current I <sub>N</sub> in A	Status display	PU
<b>Y plug on straight socket</b>					
22260514	AB-C3-M12Y-0,3PUR-M8FS	0.3	3	No	1
22260515	AB-C3-M12Y-0,6PUR-M8FS	0.6	3	No	1
22260516	AB-C3-M12Y-1,0PUR-M8FS	1	3	No	1
22260517	AB-C3-M12Y-2,0PUR-M8FS	2	3	No	1
<b>Y plug on angled socket</b>					
22260518	AB-C3-M12Y-0,3PUR-M8FA	0.3	3	No	1
22260519	AB-C3-M12Y-0,6PUR-M8FA	0.6	3	No	1
22260520	AB-C3-M12Y-1,0PUR-M8FA	1	3	No	1
22260521	AB-C3-M12Y-2,0PUR-M8FA	2	3	No	1
<b>Y plug on angled socket with LEDs</b>					
22260522	AB-C3-M12Y-0,3PUR-M8FA-2L	0.3	3	2 LEDs	1
22260523	AB-C3-M12Y-0,6PUR-M8FA-2L	0.6	3	2 LEDs	1
22260524	AB-C3-M12Y-1,0PUR-M8FA-2L	1	3	2 LEDs	1
22260525	AB-C3-M12Y-2,0PUR-M8FA-2L	2	3	2 LEDs	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## Y distributor



Part no.: 22260600

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering

- Tool shop
- Automotive industry

**Product features**

- Design as M12 and M8
- Free of substances which would hinder coating with paint or varnish

**Approvals (Norm references)**



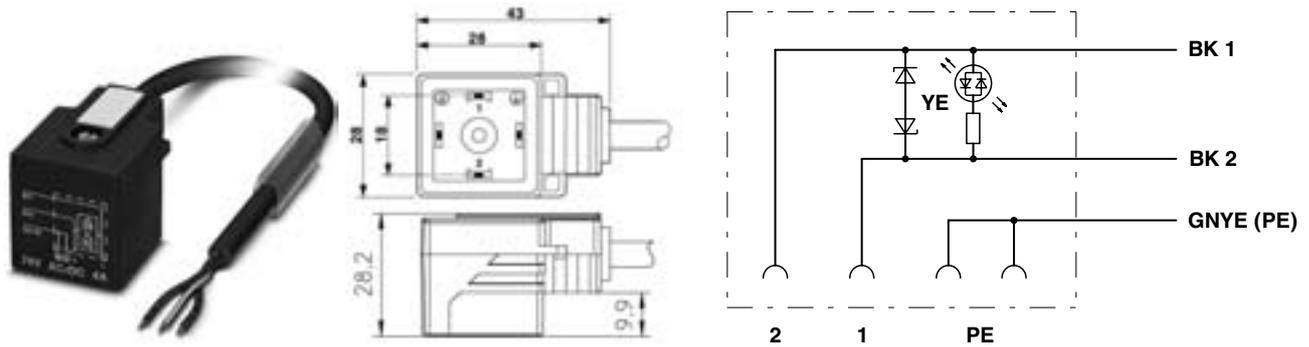
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP67
<b>0-90 °C</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C
	<b>Contact material</b> CuZn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Nominal voltage $U_N$ in V	Nominal current $I_N$ in A	Number of poles	PU
<b>M12 connector Y distributor on 2x bridged M12 socket</b>					
22260600	AB-C3-M12Y-2XM12FS B E	60	4	5	1
<b>M12 connector Y distributor on 2x M12 socket</b>					
22260601	AB-C3-M12Y-2XM12FS E	60	4	4	1
<b>M12 connector Y distributor on 2x parallel M12 socket</b>					
22260602	AB-C5-M12Y-2XM12FS V	60	4	5	1
<b>M8 connector Y distributor on 2x M8 socket</b>					
22260603	AB-C3-M8Y-2XM8FS	30	3	3	1
<b>M8 connector Y distributor 2x parallel M8 socket</b>					
22260604	AB-C3-M8Y-2XM8FS V	60	3	3	1

Note: Tabular value 'Number of poles' is valid for sockets  
 For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: 3-pos., valve connector on free conductor end



Part no.: 22260584

### ■ Benefits

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

### ■ Application range

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

### ■ Product features

- 3-pos. valve plug

- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish

### ■ Approvals (Norm references)



### ■ Design

- Cable design: 3 x 0.5 mm<sup>2</sup> (28 x 0.15 mm)
- Conductor colors: black 1, black 2, green/yellow
- Outer sheath: PUR, halogen-free
- Sheath color: black (RAL 7021)
- Outer diameter: 4,5 mm
- Can be used in drag chain

### ■ Technical data



Degree of protection  
IP 67



Ambient temperature (operation)

Valve plug  
-20°C up to +85°C  
Cable, fixed installation  
-40°C up to +80°C  
Cable, flexible installation  
-15°C up to +80°C

Contact material

CuSn

Contact surface material

Ag

Coding

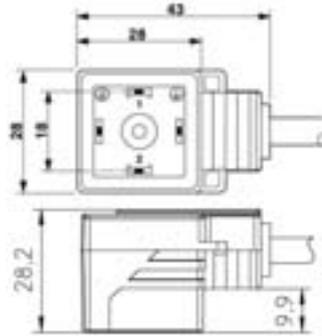
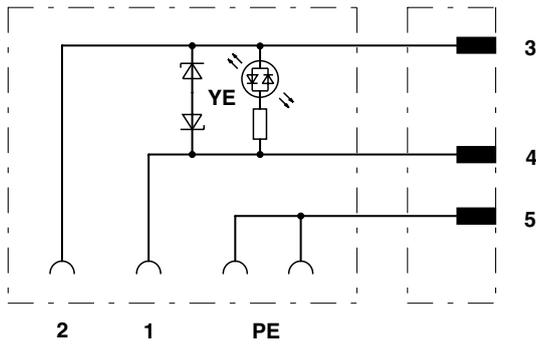
A - Standard

Part number	Article designation	Length in m	Nominal voltage $U_N$ in V	Nominal current $I_N$ in A	Status display	PU
<b>Valve connector Type A (18 mm)</b>						
22260584	AB-C3- 2,0PUR-A-1L-S	2	24	4	1 LED	1
22260576	AB-C3- 5,0PUR-A-1L-S	5	24	4	1 LED	1
22260577	AB-C3-10,0PUR-A-1L-S	10	24	4	1 LED	1
<b>Valve connector Type B (10 mm)</b>						
22260585	AB-C3- 2,0PUR-B-1L-S	2	24	4	1 LED	1
22260578	AB-C3- 5,0PUR-B-1L-S	5	24	4	1 LED	1
22260579	AB-C3-10,0PUR-B-1L-S	10	24	4	1 LED	1
<b>Valve connector Type BI (11 mm)</b>						
22260586	AB-C3- 2,0PUR-BI-1L-S	2	24	4	1 LED	1
22260580	AB-C3- 5,0PUR-BI-1L-S	5	24	4	1 LED	1
22260581	AB-C3-10,0PUR-BI-1L-S	10	24	4	1 LED	1
<b>Valve connector Type C (8 mm)</b>						
22260587	AB-C3- 2,0PUR-C-1L-S	2	24	4	1 LED	1
22260582	AB-C3- 5,0PUR-C-1L-S	5	24	4	1 LED	1
22260583	AB-C3-10,0PUR-C-1L-S	10	24	4	1 LED	1
<b>Valve connector Type CI (9.4 mm)</b>						
22260588	AB-C3- 2,0PUR-CI-1L-S	2	24	4	1 LED	1
22260574	AB-C3- 5,0PUR-CI-1L-S	5	24	4	1 LED	1
22260575	AB-C3-10,0PUR-CI-1L-S	10	24	4	1 LED	1

Copper price basis: including

For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: 3-pos., valve connector on straight M12 plug



Part no.: 22260550

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 3-pos. valve plug

- Protection type: IP67
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish

**Approvals (Norm references)**



**Design**

- Cable design: 3 x 0.5 mm<sup>2</sup> (28 x 0.15 mm)
- Conductor colors: black 1, black 2, green/yellow
- Outer sheath: PUR, halogen-free
- Sheath color: black (RAL 7021)
- Outer diameter: 4,5 mm
- Can be used in drag chain

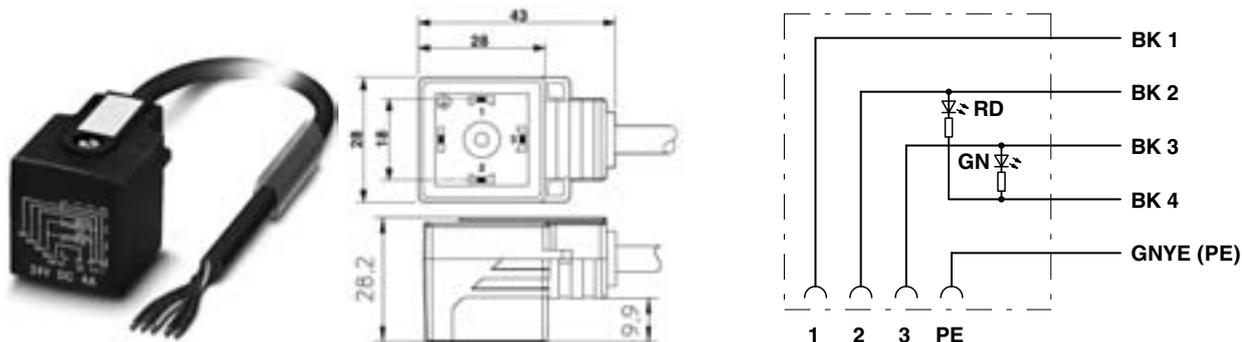
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP 67
<b>0</b>	<b>Ambient temperature (operation)</b> Valve plug -20°C up to +85°C Plug / Socket -25°C to +90°C Cable, fixed installation -40°C up to +80°C Cable, flexible installation -15°C up to +80°C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	Status display	PU
<b>Straight connector on valve connector type A (18 mm)</b>						
22260550	AB-C3-M12MS-0,3PUR-A-1L-S	0,3	24	4	1 LED	1
22260551	AB-C3-M12MS-0,6PUR-A-1L-S	0,6	24	4	1 LED	1
22260552	AB-C3-M12MS-1,0PUR-A-1L-S	1	24	4	1 LED	1
22260553	AB-C3-M12MS-2,0PUR-A-1L-S	2	24	4	1 LED	1
<b>Straight connector on valve connector type B (10 mm)</b>						
22260558	AB-C3-M12MS-0,3PUR-B-1L-S	0,3	24	4	1 LED	1
22260559	AB-C3-M12MS-0,6PUR-B-1L-S	0,6	24	4	1 LED	1
22260560	AB-C3-M12MS-1,0PUR-B-1L-S	1	24	4	1 LED	1
22260561	AB-C3-M12MS-2,0PUR-B-1L-S	2	24	4	1 LED	1
<b>Straight connector on valve connector type BI (11 mm)</b>						
22260554	AB-C3-M12MS-0,3PUR-BI-1L-S	0,3	24	4	1 LED	1
22260555	AB-C3-M12MS-0,6PUR-BI-1L-S	0,6	24	4	1 LED	1
22260556	AB-C3-M12MS-1,0PUR-BI-1L-S	1	24	4	1 LED	1
22260557	AB-C3-M12MS-2,0PUR-BI-1L-S	2	24	4	1 LED	1
<b>Straight connector on valve connector type C (8 mm)</b>						
22260566	AB-C3-M12MS-0,3PUR-C-1L-S	0,3	24	4	1 LED	1
22260567	AB-C3-M12MS-0,6PUR-C-1L-S	0,6	24	4	1 LED	1
22260568	AB-C3-M12MS-1,0PUR-C-1L-S	1	24	4	1 LED	1
22260569	AB-C3-M12MS-2,0PUR-C-1L-S	2	24	4	1 LED	1
<b>Straight connector on valve connector type CI (9.4 mm)</b>						
22260562	AB-C3-M12MS-0,3PUR-CI-1L-S	0,3	24	4	1 LED	1
22260563	AB-C3-M12MS-0,6PUR-CI-1L-S	0,6	24	4	1 LED	1
22260564	AB-C3-M12MS-1,0PUR-CI-1L-S	1	24	4	1 LED	1
22260565	AB-C3-M12MS-2,0PUR-CI-1L-S	2	24	4	1 LED	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: 5-pos., valve connector on free conductor end, for pressure switch



S/A cable: 5-pos., valve connector on free conductor end, for pressure switch

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 5-pos. valve plug

- Valve plug for pressure switch, PE bridged, 18 mm contact spacing
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish

**Approvals (Norm references)**



**Design**

- Cable design: 5 x 0.5 mm<sup>2</sup> (28 x 0.15 mm)
- Conductor colors: black 1, black 2, black 3, black 4, green/yellow
- Outer sheath: PUR, halogen-free
- Sheath color: black (RAL 7021)
- Outer diameter: 5,3 mm
- Can be used in drag chain

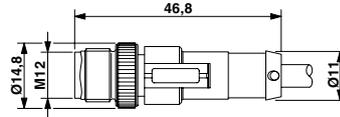
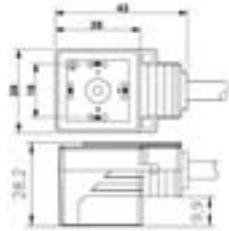
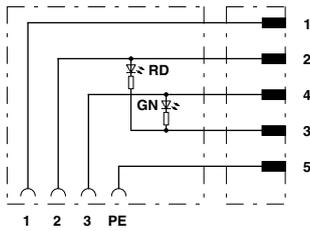
**Technical data**

- IP** Degree of protection IP 67
- Temperature** Ambient temperature (operation)
  - Valve plug: -20°C up to +85°C
  - Cable, fixed installation: -40°C up to +80°C
  - Cable, flexible installation: -15°C up to +80°C
- Contact material**: CuSn
- Contact surface material**: Ag
- Coding**: A - Standard

Part number	Article designation	Length in m	Nominal voltage U <sub>n</sub> in V	Nominal current I <sub>n</sub> in A	Status display	PU
<b>Valve connector for pressure switch (18 mm)</b>						
22260589	AB-C5-2,0PUR-AD-2L	2	24	4	2 LEDs	1
22260590	AB-C5-5,0PUR-AD-2L	5	24	4	2 LEDs	1
22260591	AB-C5-10,0PUR-AD-2L	10	24	4	2 LEDs	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A cable: 5-pos., valve connector on straight M12 plug, for pressure switch



S/A cable: 5-pos., valve connector on straight M12 plug, for pressure switch

**Benefits**

- Cost saving because of quick and easy installation
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 5-pos. valve plug

- Valve plug for pressure switch, PE bridged, 18 mm contact spacing
- The cables have marker carriers
- Free of substances which would hinder coating with paint or varnish

**Approvals (Norm references)**



**Design**

- Cable design: 5 x 0.5 mm<sup>2</sup> (28 x 0.15 mm)
- Conductor colors: black 1, black 2, black 3, black 4, green/yellow
- Outer sheath: PUR, halogen-free
- Sheath color: black (RAL 7021)
- Outer diameter: 5,3 mm
- Can be used in drag chain

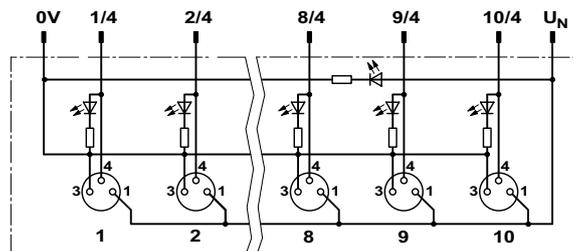
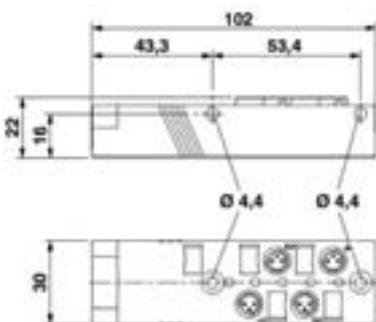
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP 67
<b>0-1</b>	<b>Ambient temperature (operation)</b> Valve plug -20°C up to +85°C Plug / Socket -25°C to +90°C Cable, fixed installation -40°C up to +80°C Cable, flexible installation -15°C up to +80°C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> A - Standard
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	Status display	PU
<b>Straight connector on valve connector for pressure switch</b>						
22260573	AB-C5-M12MS-0,3PUR-AD-2L	0.3	24	4	2 LEDs	1
22260572	AB-C5-M12MS-0,6PUR-AD-2L	0.6	24	4	2 LEDs	1
22260571	AB-C5-M12MS-1,0PUR-AD-2L	1	24	4	2 LEDs	1
22260570	AB-C5-M12MS-2,0PUR-AD-2L	2	24	4	2 LEDs	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A box with M8 slots and master cable



Part no.: 22260026

**Benefits**

- Inexpensive and efficient wiring of sensors and actuators
- Instead of numerous individual conductors, one master cable is laid to the control unit
- The master cable is designed as a hybrid cable carrying signals and power
- There are no assembly costs because the master cable is pre-assembled

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- With permanently connected master cable
- Single-occupied sensor/actuator box
- LEDs indicate the operating mode of the distributor and the status of the sensors
- Free of substances which would hinder coating with paint or varnish

**Approvals (Norm references)**



**Design**

- PUR/PVC cable
- Permanently flexible control cable
- Sheath color black

**Technical data**

- IP** Degree of protection IP65/IP67
- Temperature** Ambient temperature (operation)
  - 30°C bis 80°C
  - Cable, fixed installation -40°C up to 90°C
  - Cable, flexible installation -5°C up to 80°C
- Amp.** Current carrying capacity per slot 2 A

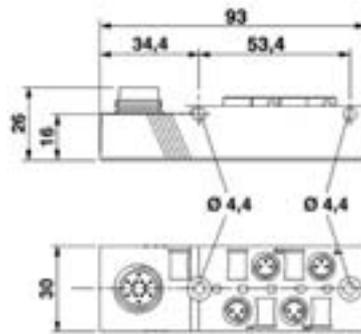
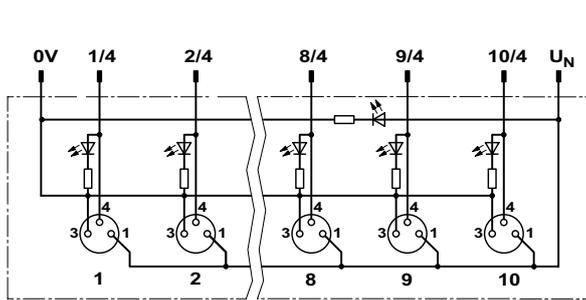
Part number	Article designation	Length in m	Number of slots	Nominal voltage U <sub>n</sub> in V	SACB total current in A	Status display	PU
<b>with M 8 master cable connection</b>							
22260026	AB-B4-M8L-4-5,0PUR	5.0	4	24	6	LEDs	1
22260027	AB-B4-M8L-4-10,0PUR	10.0	4	24	6	LEDs	1
22260028	AB-B6-M8L-6-5,0PUR	5.0	6	24	6	LEDs	1
22260029	AB-B6-M8L-6-10,0PUR	10.0	6	24	6	LEDs	1
22260030	AB-B8-M8L-8-5,0PUR	5.0	8	24	6	LEDs	1
22260031	AB-B8-M8L-8-10,0PUR	10.0	8	24	6	LEDs	1
22260032	AB-B10-M8L-10-5,0PUR	5.0	10	24	6	LEDs	1
22260033	AB-B10-M8L-10-10,0PUR	10.0	10	24	6	LEDs	1

Copper price basis: including  
 Unused female connectors must be covered with protective caps (see accessories) to ensure IP65/67  
 For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

**Accessories**

- Screw plug for unoccupied sockets see page 41

## S/A box, M8 slots and master cable connection M16/M12



Part no.: 22260034

**Benefits**

- Inexpensive and efficient wiring of sensors and actuators
- Instead of numerous individual conductors, one master cable is laid to the control unit
- The pluggable connection ensures universal pluggability as well as simple on-site assembly

**Product features**

- With M12/M16 plug-in connection
- Single-occupied sensor/actuator box
- LEDs indicate the operating mode of the distributor and the status of the sensors
- Free of substances which would hinder coating with paint or varnish

**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP67
<b>0</b>	<b>Ambient temperature (operation)</b> -30°C bis 80°C
<b>Amp.</b>	<b>Current carrying capacity per slot</b> 2 A

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Approvals (Norm references)**



**Suitable cables**

- M16 socket with connected master cable see page 39
- M12 socket with connected master cable see page 40

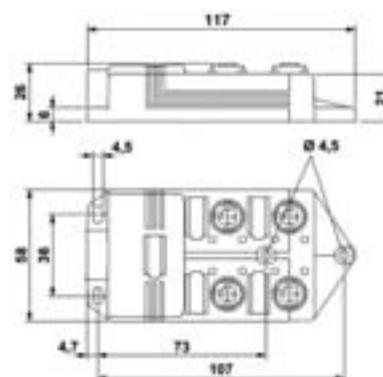
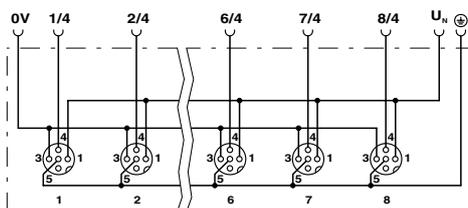
Part number	Article designation	Number of slots	Nominal voltage $U_N$ in V	SACB total current in A	Status display	PU
<b>With M16, 8-pos. Master cable connection</b>						
22260034	AB-B4-M8L-4-M16	4	24	6	LEDs	1
<b>With M16, 10-pos. Master cable connection</b>						
22260035	AB-B6-M8L-6-M16	6	24	6	LEDs	1
<b>With M16, 12-pos. Master cable connection</b>						
22260036	AB-B8-M8L-8-M16	8	24	6	LEDs	1
<b>With M16, 14-pos. Master cable connection</b>						
22260037	AB-B10-M8L-10-M16	10	24	6	LEDs	1
<b>With M12, 8-pos. Master cable connection</b>						
22260038	AB-B4-M8L-4-M12	4	24	4	LEDs	1
22260039	AB-B6-M8L-6-M12	6	24	4	LEDs	1

Unused female connectors must be covered with protective caps (see accessories) to ensure IP65/67  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

**Accessories**

- Screw plug for unoccupied sockets see page 41

## S/A box with M12 slots and master cable



Part no.: 22260010

### ■ Benefits

- Inexpensive and efficient wiring of sensors and actuators
- Instead of numerous individual conductors, one master cable is laid to the control unit
- The master cable is designed as a hybrid cable carrying signals and power
- There are no assembly costs because the master cable is pre-assembled

### ■ Product features

- With permanently connected master cable
- Single or double-occupied sensor/actuator box
- With LEDs for sensor status display without LEDs for analog signals
- Free of substances which would hinder coating with paint or varnish

### ■ Technical data

<b>IP</b>	Degree of protection IP65/IP67/IP69K
<b>Amp.</b>	Max. current carrying capacity per path 2 A
<b>Amp.</b>	Current carrying capacity per slot 4 A

### ■ Application range

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

### ■ Approvals (Norm references)



### ■ Design

- PUR/PVC cable
- Permanently flexible control cable
- Sheath color black

Part number	Article designation	Length in m	Number of slots	Nominal voltage U <sub>N</sub> in V	SACB total current in A	Status display	PU
<b>Single occupied boxes, without LEDs</b>							
22260010	AB-B4-M12-4-5,0PUR	5.0	4	120	12	No	1
22260011	AB-B4-M12-4-10,0PUR	10.0	4	120	12	No	1
22260014	AB-B8-M12-8-5,0PUR	5.0	8	120	12	No	1
22260015	AB-B8-M12-8-10,0PUR	10.0	8	120	12	No	1
<b>Single occupied boxes, with LEDs</b>							
22260018	AB-B4-M12L-4-5,0PUR	5.0	4	24	12	LEDs	1
22260019	AB-B4-M12L-4-10,0PUR	10.0	4	24	12	LEDs	1
22260022	AB-B8-M12L-8-5,0PUR	5.0	8	24	12	LEDs	1
22260023	AB-B8-M12L-8-10,0PUR	10.0	8	24	12	LEDs	1
<b>Double occupied boxes, without LEDs</b>							
22260012	AB-B4-M12-8-5,0PUR	5.0	4	120	12	No	1
22260013	AB-B4-M12-8-10,0PUR	10.0	4	120	12	No	1
22260016	AB-B8-M12-16-5,0PUR	5.0	8	120	12	No	1
22260017	AB-B8-M12-16-10,0PUR	10.0	8	120	12	No	1
<b>Double occupied boxes, with LEDs</b>							
22260020	AB-B4-M12L-8-5,0PUR	5.0	4	24	12	LEDs	1
22260021	AB-B4-M12L-8-10,0PUR	10.0	4	24	12	LEDs	1
22260024	AB-B8-M12L-16-5,0PUR	5.0	8	24	12	LEDs	1
22260025	AB-B8-M12L-16-10,0PUR	10.0	8	24	12	LEDs	1

Copper price basis: including

Unused female connectors must be covered with protective caps (see accessories) to ensure IP65/67

For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

### ■ Accessories

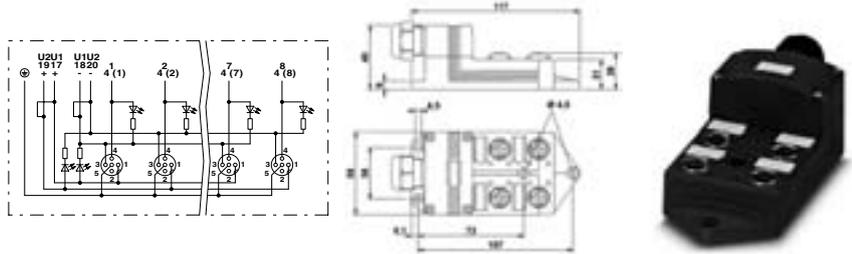
- Screw plug for unoccupied sockets see page 41

## S/A box with M12 slots and master cable connection



**Info**

- For individual mastercable assembly



Part no.: 22260005

**Benefits**

- Inexpensive and efficient wiring of sensors and actuators
- Instead of numerous individual conductors, one master cable is laid to the control unit
- The pluggable connection ensures universal pluggability as well as simple on-site assembly

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- With pluggable screw connection

- Single or double-occupied sensor/actuator box
- With LEDs for sensor status display without LEDs for analog signals
- Free of substances which would hinder coating with paint or varnish

**Approvals (Norm references)**



**Suitable cables**

- UNITRONIC® SENSOR master cable bulk stock see page 38

**Suitable tools**

- Kraftform® adjustable torque screwdriver/ Kraftform Kompakt® Set see page 72

**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP67/IP69K
	<b>Ambient temperature (operation)</b> -30°C bis 80°C
<b>Amp.</b>	<b>Max. current carrying capacity per path</b> 2 A
<b>Amp.</b>	<b>Current carrying capacity per slot</b> 4 A

Part number	Article designation	Number of slots	Nominal voltage U <sub>n</sub> in V	SACB total current in A	Status display	PU
<b>Single occupied boxes, without LEDs</b>						
22260005	AB-B4-M12-4-C	4	120	10	No	1
22260007	AB-B8-M12-8-C	8	120	10	No	1
<b>Single occupied boxes, with LEDs</b>						
22260001	AB-B4-M12L-4-C	4	24	10	LEDs	1
22260003	AB-B8-M12L-8-C	8	24	10	LEDs	1
<b>Double occupied boxes, without LEDs</b>						
22260006	AB-B4-M12-8-C	4	120	10	No	1
22260008	AB-B8-M12-16-C	8	120	10	No	1
<b>Double occupied boxes, with LEDs</b>						
22260002	AB-B4-M12L-8-C	4	24	10	LEDs	1
22260004	AB-B8-M12L-16-C	8	24	10	LEDs	1

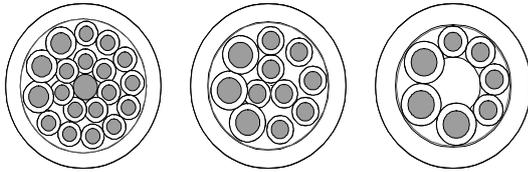
Unused female connectors must be covered with protective caps (see accessories) to ensure IP65/67  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

**Accessories**

- Screw plug for unoccupied sockets see page 41

**New**

**UNITRONIC® SENSOR master cable bulk stock**



**Info**

- Customised construction supported

**Benefits**

- Inexpensive and efficient wiring for S/A boxes with pluggable master cable connection
- Universally useable for S/A installations

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering

- Tool shop
- Automotive industry

**Product features**

- Cores for Power Supply: 3x0,75 mm<sup>2</sup> and 3x1,0 mm<sup>2</sup>
- Cores for Signalling cable: 4x0,34 mm<sup>2</sup>, 8x0,5 mm, 16x0,5 mm<sup>2</sup>
- Can be used in drag chain
- Halogen-free

**Design**

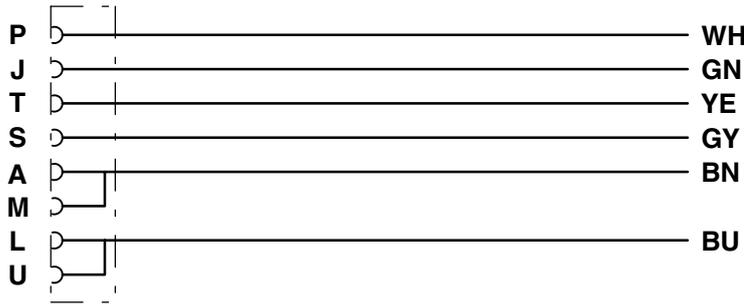
- UNITRONIC® SENSOR Li9Y11 COMBI  
Conductor: bare copper strand, single wire diameter: 0,1 mm for 0,34 mm<sup>2</sup>, 0,18 mm for 0,5 mm<sup>2</sup>, 0,205 for 0,75 mm<sup>2</sup>, 0,15 for 1,0 mm<sup>2</sup>. Core insulation PP halogenfree, outer sheath PUR acc. DIN VDE 0250 part 818 halogenfree.
- Sheath color: black (similar RAL 9005)  
Core colors: see datasheet

Part number	Article designation	Dimension in mm <sup>2</sup>	Outer diameter in mm approx.	Core / sheath material	Colour	Copper index kg/km
<b>UNITRONIC® SENSOR COMBI</b>						
7038880	Li9Y11Y	3x0,75+4x0,34	6.6	PP/PUR	black	34.5
7038881	Li9Y11Y	3x1,0+8x0,5	8.4	PP/PUR	black	67.2
7038882	Li9Y11Y	3x1,0+16x0,5	9.8	PP/PUR	black	105.6

**Accessories**

- S/A box with M12 slots and master cable connection see page 37

## M 16 socket with connected master cable



Part no.: 22260607

**Benefits**

- Connecting cable for M8 boxes with 4 to 10 slots
- M 16 connection

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- Design as socket variant with M 16 thread
- Free of substances which would hinder coating with paint or varnish

**Approvals (Norm references)**



**Design**

- PUR/PVC cable
- Permanently flexible control cable
- Sheath color black

**Technical data**



**Degree of protection**  
IP 67



**Ambient temperature (operation)**  
Plug / socket  
-25 °C to +90 °C  
Cable, fixed installation  
-40 °C up to 90 °C  
Cable, flexible installation  
-5 °C up to 80 °C

**Contact material**  
CuZn

**Contact surface material**  
Ni/Au

**Coding**  
A - Standard

**Material, knurls**  
Nickel-plated brass

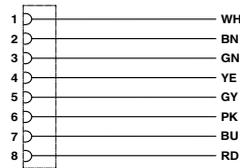
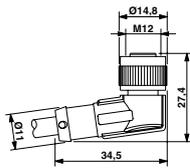
**Material of grip body**  
TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	PU
<b>8 pole angled socket</b>					
22260607	AB-C8- 5,0PUR-M16FA	5	125	4	1
22260608	AB-C8-10,0PUR-M 16FA	10	125	4	1
<b>10 pole angled socket</b>					
22260609	AB-C10- 5,0PUR-M 16FA	5	125	4	1
22260610	AB-C10-10,0PUR-M 16FA	10	125	4	1
<b>12 pole angled socket</b>					
22260611	AB-C12- 5,0PUR-M16FA	5	125	4	1
22260612	AB-C12-10,0PUR-M 16FA	10	125	4	1
<b>14 pole angled socket</b>					
22260613	AB-C14- 5,0PUR-M16FA	5	125	4	1
22260614	AB-C14-10,0PUR-M16FA	10	125	4	1

Copper price basis: including

For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## M 12 socket with connected master cable



M 12 socket with connected master cable



**Info**

- Drag chain suitable

**Benefits**

- Connecting cable for M8 boxes with 4 to 6 slots
- M 12 connection

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- Design as socket variant with M 12 thread
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- PUR/PVC cable
- Permanently flexible control cable
- Sheath color black

**Technical data**



**Degree of protection**  
IP65/IP68/IP69K



**Ambient temperature (operation)**

Plug / socket  
-25 °C to +90 °C  
Cable, fixed installation  
-40 °C up to +80 °C  
Cable, flexible installation  
-5 °C up to +80 °C

**Contact material**  
CuZn

**Contact surface material**  
Ni/Au

**Coding**  
A - Standard

**Material, knurls**  
Zinc die-cast, (nickel-plated)

**Material of grip body**  
TPU, hardly inflammable, self-extinguishing

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	PU
<b>8 pole angled connector</b>					
22260615	AB-C8-5,0PUR-M12FA	5	30	2	1
22260616	AB-C8-10,0PUR-M12FA	10	30	2	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## Screw plug for unoccupied sockets



Screw plug for unoccupied sockets

**■ Benefits**

- Protective cap for unoccupied M8/M12 slots

**■ Application range**

- Automation technology
- Mechanical engineering

- Plant engineering
- Tool shop
- Automotive industry

**■ Product features**

- Free of substances which would hinder coating with paint or varnish

**■ Approvals (Norm references)**



**■ Suitable tools**

- Kraftform® adjustable torque screwdriver/  
Kraftform Kompakt® Set see page 72

Part number	Article designation	PU
<b>M8</b>		
22260606	AB-B-M8-PC	1
<b>M12</b>		
22260605	AB-B-M12-PC	1

For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## Complete connection hood with 4, 6 or 8 slots



Complete connection hood with 4, 6 or 8 slots

■ **Benefits**

- Pluggable screw connection as accessory for S/A-Box with pluggable master cable connection
- The pluggable connection ensures universal pluggability as well as simple on-site assembly

■ **Application range**

- Automation technology

- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

■ **Product features**

- Accessory for SA-Box with plugable master cable connection
- With pluggable screw connection

■ **Approvals (Norm references)**



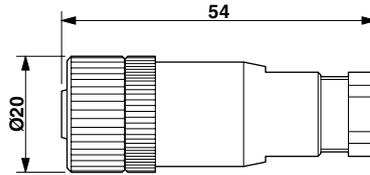
■ **Suitable tools**

- Kraftform® adjustable torque screwdriver/ Kraftform Kompakt® Set see page 72

Part number	Article designation	PU
<b>Accessories</b>		
22260009	AB-B-HC	1

For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A M12 connectors that can be assembled



Part no.: 22260127

■ **Benefits**

- Quick and easy on-site assembly
- Creating individual cable lengths
- Standardized interfaces
- No special tools required for connecting the cables (quick connection designs)

■ **Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

■ **Product features**

- 4 and 5-position version
- Shielded and unshielded version
- Fast connection and screw connection design
- Free of substances which would hinder coating with paint or varnish

■ **Approvals (Norm references)**



■ **Suitable cables**

- Cable for sensor / actuator components see page 45

■ **Technical data**

IP	<b>Degree of protection</b>
	IP 67
0	<b>Ambient temperature (operation)</b>
	Plug / socket -40°C to +85°C
	<b>Contact material</b>
	CuZn
	<b>Contact surface material</b>
	CuSnZn
	<b>Coding</b>
	A - Standard

Part number	Article designation	Number of poles	Conductor cross section stranded min. in mm <sup>2</sup>	Conductor cross section stranded max. in mm <sup>2</sup>	Cable Diameter min in mm	Cable Diameter max in mm	Nominal voltage U <sub>n</sub> in V	Nominal current I <sub>n</sub> in A	PU
<b>Straight connector, fast connection (Insulation-displacement)</b>									
22260132	AB-C4-M12MS-F0,34	4	0.14	0.34	3.5	6	125	4	1
22260134	AB-C4-M12MS-F0,75	4	0.34	0.75	4	8	250	4	1
<b>Straight connector, screw connection</b>									
22260129	AB-C5-M12MS-PG 7	5	0.25	0.75	4	6	60	4	1
<b>Straight socket, fast connection (Insulation-displacement)</b>									
22260131	AB-C4-M12FS-F0,34	4	0.14	0.34	3.5	6	125	4	1
22260133	AB-C4-M12FS-F0,75	4	0.34	0.75	4	8	250	4	1
<b>Straight socket, screw connection</b>									
22260127	AB-C5-M12FS-PG 7	5	0.25	0.75	4	6	60	4	1
<b>Angled connector, screw connection</b>									
22260130	AB-C5-M12MA-PG 7	5	0.25	0.75	4	6	60	4	1
<b>Angled socket, screw connection</b>									
22260128	AB-C5-M12FA-PG 7	5	0.25	0.75	4	6	60	4	1
<b>Straight connector, shielded, screw connection</b>									
22260135	AB-C5-M12MS-PG9-SH	5	0.25	0.75	6	8	60	4	1
<b>Straight socket, shielded, screw connection</b>									
22260136	AB-C5-M12FS-PG9-SH	5	0.25	0.75	6	8	60	4	1

For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A M8 connectors that can be assembled



Part no.: 22260124



Part no.: 22260120

### ■ Benefits

- Quick and easy on-site assembly
- Creating individual cable lengths
- Standardized interfaces

### ■ Application range

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

### ■ Product features

- 3 and 4-position version
- Fast connection and screw connection design
- Free of substances which would hinder coating with paint or varnish

### ■ Approvals (Norm references)



### ■ Suitable cables

- Cable for sensor / actuator components see page 45

### ■ Technical data

	<b>Degree of protection</b>
	IP 68
	<b>Ambient temperature (operation)</b>
	Plug / socket -25 °C to +90 °C
	<b>Contact material</b>
	CuZn
	<b>Contact surface material</b>
	Au
	<b>Coding</b>
	A - Standard

Part number	Article designation	Number of poles	Conductor cross section stranded min. in mm <sup>2</sup>	Conductor cross section stranded max. in mm <sup>2</sup>	Cable Diameter min in mm	Cable Diameter max in mm	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	PU
<b>Straight connector, screw connection</b>									
22260120	AB-C3-M8MS	3	0.14	0.5	3.5	5	60	4	1
22260121	AB-C4-M8MS	4	0.14	0.5	3.5	5	30	4	1
<b>Straight connector, fast connection (Piercing)</b>									
22260122	AB-C3-M8MS-P	3	0.14	0.38	3	5	60	4	1
22260123	AB-C4-M8MS-P	4	0.14	0.38	3	5	30	4	1
<b>Straight socket, screw connection</b>									
22260125	AB-C3-M8FS	3	0.14	0.5	3.5	5	60	4	1
22260126	AB-C4-M8FS	4	0.14	0.5	3.5	5	30	4	1
<b>Straight socket, fast connection (Piercing)</b>									
22260124	AB-C3-M8FS-P	3	0.14	0.38	3	5	60	4	1
22260119	AB-C4-M8FS-P	4	0.14	0.38	3	5	30	4	1

For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

# UNITRONIC® SENSOR



**Application range**

- Cables for UNITRONIC® Fieldbus sensor-/actuator wiring requirements
- Data transmission cables to connect to M8, M12 connectors
- Automation technology
- Mechanical engineering
- Plant engineering

**Product features**

- Core colour in accordance with DIN EN 50044
- 3x 0.34 mm<sup>2</sup>  
1= brown, 2= blue, 3= black
- 4x 0.34 mm<sup>2</sup>  
1= brown, 2= white, 3= blue, 4= black

- 5x 0.25 mm<sup>2</sup> or 0.34 mm<sup>2</sup>  
1= brown, 2= white, 3= blue, 4= black, 5=grey
- 8x 0.25 mm<sup>2</sup>  
1= white, 2=brown, 3= green, 4= yellow, 5= grey, 6= pink, 7=blue, 8= red

**Approvals (Norm references)**



**Design**

- UNITRONIC® SENSOR LiFY  
Conductor: Superfine bare copper strand in accordance with DIN VDE 0295 Class 6; Core insulation PCV, Outer sheath PVC vinyl

- UNITRONIC® SENSOR DESINA® LiFY11Y  
Stranded bare copper conductor, superfine. In accordance with VDE 0295 Class 6, special PVC insulation, cores twisted in layers, core ident code in accordance with DESINA® (brown, white, blue, black). Outer sheath of special polyurethane based compound; colour yellow in acc. to RAL 1021; flame retardant acc. to IEC 60332-1-2. Operating voltage= 48 V, Peak working voltage= 300 V.
- UNITRONIC® SENSOR FD UL/CSA - LiFY11Y  
Approved AWM UL-style 20549, 80°C / 300 V. Conductor: Cu wire, bare, super-fine strands in accordance with DIN VDE 0295 class 6. Core insulation: modified polypropylene (PP), outer sheath: halogen-free polyurethane (PUR), matt, adhesion free
- UNITRONIC® SENSOR FD series cables are especially suited for power chain use

Part number	Article designation	Dimension in mm <sup>2</sup>	Outer diameter in mm approx.	Core / sheath material	Colour	Copper index kg/km
<b>UNITRONIC® SENSOR</b>						
7038859	S-LiFY **	3x0,34	4.8	PVC/PVC	black	9.8
7038860	S-LiFY **	4x0,34	4.8	PVC/PVC	black	13.1
0040434	DESINA **	4x0,34	5.2	PVC/PVC	yellow RAL 1021	13.5
7038861	S-LiFY11Y **	4x0,34	4.8	PVC/PUR	black	13.1
7038862	S-LiFY11Y **	5x0,25	4.9	PVC/PUR	black	12.0
<b>UNITRONIC® SENSOR FD UL/CSA</b>						
7038864	LiFY11Y **	3x0,34	4.6	PP/PUR	black	9.8
7038865	LiFY11Y **	4x0,34	4.7	PP/PUR	black	13.0
7038866	LiFY11Y **	5x0,34	5.1	PP/PUR	black	16.0
7038867	LiFY11Y **	5x0,25	4.7	PP/PUR	black	12.0
7038868	LiFY11Y **	8x0,25	5.9	PP/PUR	black	19.0

Copper price basis: EUR 150 / 100 kg  
 Please find our standard lengths at: [www.lappkabel.de/en/cable-standardlengths](http://www.lappkabel.de/en/cable-standardlengths)  
 Cables are printed  
 Further types on request

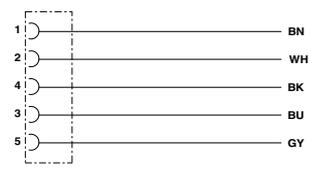
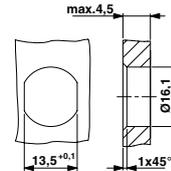
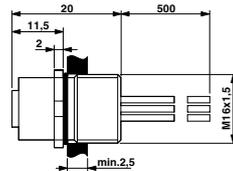
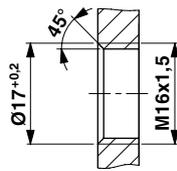
**Accessories**

- S/A M12 connectors that can be assembled see page 43
- S/A M8 connectors that can be assembled see page 44
- STAR STRIP stripping tool see main catalogue 2008/09 page 824
- SMARTSTRIP stripping tool see main catalogue 2008/09 page 825

## S/A M 12 flush-type connectors with M 16 fastening thread



Part no.: 22260107



**Benefits**

- Flexible connection solutions for individual device concepts
- Simple installation in devices
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- M 12 panel feed-through with punched on single litz wires
- Panel feed-through with M 16 fastening thread
- Front mounting
- Free of substances which would hinder coating with paint or varnish

**Approvals (Norm references)**



**Design**

- PUR halogen-free single litz wires, l = 0.5 m
- 0,34 mm<sup>2</sup>

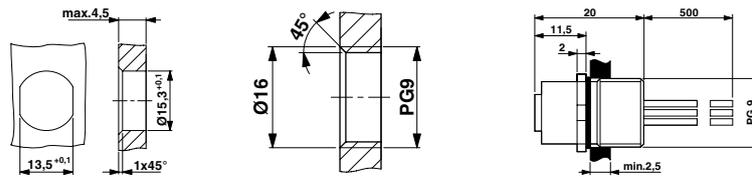
**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP 67
<b>0+1</b>	<b>Ambient temperature (operation)</b> Plug / socket -25°C to +85°C
	<b>Contact material</b> CuZn
	<b>Contact surface material</b> Au
	<b>Coding</b> A - Standard

Part number	Article designation	Number of poles	Conductor cross section in mm <sup>2</sup>	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	PU
<b>M 12 flush-type connector pin for front mounting</b>						
22260108	AB-C4-M12MS-M16-0,5	4	0.34	250	4	1
22260106	AB-C5-M12MS-M16-0,5	5	0.34	60	4	1
<b>M 12 flush-type connector socket for front mounting</b>						
22260107	AB-C4-M12FS-M16-0,5	4	0.34	250	4	1
22260105	AB-C5-M12FS-M16-0,5	5	0.34	60	4	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A M12 flush-type connectors with PG9 fastening thread



Part no.: 22260114

**■ Benefits**

- Flexible connection solutions for individual device concepts
- Simple installation in devices
- Standardized interfaces

**■ Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**■ Product features**

- M12 panel feed-through with punched on single litz wires
- Panel feed-through with PG9 fastening thread
- Models for front and rear mounting
- Free of substances which would hinder coating with paint or varnish

**■ Approvals (Norm references)**



**■ Design**

- PUR halogen-free single litz wires, l = 0.5 m
- 0,34 mm<sup>2</sup>

**■ Technical data**

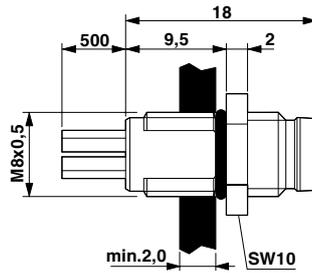
<b>IP</b>	<b>Degree of protection</b> IP 67
<b>0+</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +85 °C
<b>⚡</b>	<b>Contact material</b> CuZn
	<b>Contact surface material</b> Au
	<b>Coding</b> A - Standard

Part number	Article designation	Number of poles	Conductor cross section in mm <sup>2</sup>	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	PU
<b>M12 flush-type connector pin for rear mounting</b>						
22260117	AB-C4-DSI-M12MS-PG9-0,5	4	0.34	250	4	1
22260115	AB-C5-DSI-M12MS-PG9-0,5	5	0.34	60	4	1
<b>M12 flush-type connector socket for rear mounting</b>						
22260118	AB-C4-DSI-M12FS-PG9-0,5	4	0.34	250	4	1
22260116	AB-C5-DSI-M12FS-PG9-0,5	5	0.34	60	4	1
<b>M12 flush-type connector pin for front mounting</b>						
22260113	AB-C4-M12MS-PG9-0,5	4	0.34	250	4	1
22260112	AB-C5-M12MS-PG9-0,5	5	0.34	60	4	1
<b>M12 flush-type connector socket for front mounting</b>						
22260114	AB-C4-M12FS-PG9-0,5	4	0.34	250	4	1
22260111	AB-C5-M12FS-PG9-0,5	5	0.34	60	4	1

Copper price basis: including

For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## S/A M8 flush-type connectors



Part no.: 22260101

**Benefits**

- Flexible connection solutions for individual device concepts
- Simple installation in devices
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- M8 panel feed-through with punched on single litz wires

- Panel feed-through with M8 fastening thread
- Front mounting
- IP65/IP67 protection
- Free of substances which would hinder coating with paint or varnish

**Approvals (Norm references)**



**Design**

- PUR halogen-free single litz wires, l = 0.5 m
- 0,25 mm<sup>2</sup>

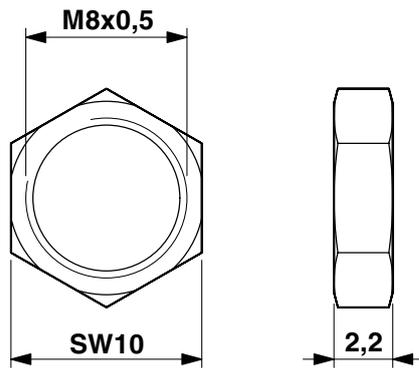
**Technical data**

	<b>Degree of protection</b> IP 67
	<b>Ambient temperature (operation)</b> Plug / socket -25°C to +85°C
	<b>Contact material</b> Copper alloy
	<b>Contact surface material</b> Au
	<b>Coding</b> A - Standard

Part number	Article designation	Number of poles	Conductor cross section in mm <sup>2</sup>	Nominal voltage U <sub>n</sub> in V	Nominal current I <sub>n</sub> in A	PU
<b>M8 flush-type connector pin for front mounting</b>						
22260100	AB-C3-M8MS-0,5	3	0.25	60	4	1
22260101	AB-C4-M8MS-0,5	4	0.25	30	4	1
<b>M8 flush-type connector socket for front mounting</b>						
22260102	AB-C3-M8FS-0,5	3	0.25	60	4	1
22260103	AB-C4-M8FS-0,5	4	0.25	30	4	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

## Fitting nut for flush-type connectors



Fitting nut for flush-type connectors

■ **Benefits**

- Fitting nut as accessory for flush-type connectors

■ **Product features**

- Material: Nickel-plated brass

■ **Approvals (Norm references)**



Part number	Article designation	PU
<b>M8 thread (M8x0,5 - SW10), h = 2.2 mm</b>		
22260104	AB-C-M8-CN	1
<b>PG9 thread (PG9 - SW18), h = 2.8 mm</b>		
22260109	AB-C-PG9-CN	1
<b>M16 thread (M16x1,5 - SW19), h = 2.8 mm</b>		
22260110	AB-C-M16-CN	1

For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

■ **Comparable products**

- SKINDICHT® SM

**New**

# AS-Interface Modules (IP67)



Part no.: 22260758

Part no.: 22260755

**Info**

- Fully industrialised

**Benefits**

- Standardized interfaces
- For decentralized automatization
- Space saving because of compact dimensions
- Easy installation
- Fast and easy error tracking

- Connection type of digital Input/output as M12 or M8 for sensors/actuators
- Flat-ribbon cable cable penetration technique as connection type for module M12
- M12 connection type for M8 module
- LED diagnostic and status indication
- Short circuit-/overload protection

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Approvals (Norm references)**



**Suitable cables**

- UNITRONIC® BUS ASI see main catalogue 2008/09 page 291
- UNITRONIC® BUS FD ASI see main catalogue 2008/09 page 291

**Product features**

- AS-Interface module slave
- Integration of field bus activation and input/output-level

**Technical data**

**Fieldbus system**  
AS-Interface

**Connection type**  
Flat-ribbon cable penetration technique / M12 connection type

**Installation**  
Panel mounting / DIN rail adapter

**Number of poles**  
2

**Degree of protection**  
IP67

**Protection class**  
III

**Ambient temperature (operation)**  
-25 °C bis +70 °C

**Ambient temperature (storage/transport)**  
-25°C up to +85°C

**Voltage consumption**  
26.5 V DC PELV to 31.6 V DC PELV

Part number	Article designation	Connection method	Number of inputs	Number of outputs	Slave type	Master specification	PU
<b>With digital in-/outputs, M8</b>							
22260759	AB-ASI-M12-DI4DO4-M8-1A	2, 3-wire	4	4	Single-Slave	>= 2.0	1
<b>With digital in-/outputs, M12</b>							
22260755	AB-ASI-DI2DO2-M12-2A	2, 3-wire	2	2	A/B-Slave	>= 2.0	1
22260756	AB-ASI-DI4DO3-M12-2A	2, 3-wire	4	3	A/B-Slave	>= 2.0	1
22260757	AB-ASI-DI4DO4-M12-2A	2, 3-wire	4	4	A/B-Slave	>= 3.0	1
<b>With digital inputs, M8</b>							
22260758	AB-ASI-M12-DI4-M8	2, 3-wire	4		Single-Slave	>= 2.0	1
<b>With digital inputs, M12</b>							
22260753	AB-ASI-DI4-M12	2, 3-wire	4		A/B-Slave	>= 2.0	1
<b>With digital outputs, M12</b>							
22260754	AB-ASI-DO4-M12-2A	2-wire		4	Single-Slave	>= 2.0	1

Unused female connectors must be covered with protective caps (see accessories) to ensure IP65/67  
For detailed information please see the data sheet or installation procedure ([www.lappautomation.com](http://www.lappautomation.com))

**Accessories**

- AS-Interface power supply see page 59
- Screw plug for unoccupied sockets see page 41
- AS-Interface Distributor see page 56
- Powerkabel M12 see page 70 - 71

**New**

# AS-Interface Modules (IP30)



AS-Interface Modules (IP30)

**Info**

- Fully industrialised

**Benefits**

- Standardized interfaces
- For decentralized automatization
- Space saving because of compact dimensions
- Easy installation
- Fast and easy error tracking

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- AS-Interface module slave
- Integration of field bus activation and input/output-level

- Metal housing
- Connection by screw-plug terminals or spring-plug terminals
- Digital Inputs/outputs for connection of sensors/actuators
- LED diagnostic and status indication
- Short circuit-/overload protection

**Approvals (Norm references)**



**Suitable cables**

- UNITRONIC® BUS ASI see main catalogue 2008/09 page 291
- UNITRONIC® BUS FD ASI see main catalogue 2008/09 page 291

**Technical data**

**Fieldbus system**  
AS-Interface

**Dimensions W x H x D in mm**  
105 mm x 85 mm x 22,5 mm

**Connection type**  
Connector for screw-plug terminals or spring-plug terminals

**Installation**  
DIN rail adapter (35 mm)

**Degree of protection**  
IP30

**Protection class**  
II

**Ambient temperature (operation)**  
-25 °C up to +60 °C

**Ambient temperature (storage/transport)**  
-40 °C up to +85 °C

**Permissible humidity (storage/transport)**  
max. 95 %, not condensing

**Voltage consumption**  
26.5 V DC to 31.6 V DC

Part number	Article designation	Connection method	Number of inputs	Number of outputs	Slave type	AS-i specification	Master specification	PU
<b>4 Outputs Relay 3A</b>								
22260807	AB-ASI-DI4DOR4-3A	2, 3-wire	4	4	Single-Slave	3.01	>= 3.0	1
<b>4 Outputs 2A</b>								
22260808	AB-ASI-DI4DO4-2A	2, 3-wire	4	4	Single-Slave	3.01	>= 3.0	1
<b>8 Outputs 2A</b>								
22260809	AB-ASI-DI8DO8-2A	2, 3-wire	8	8	Single-Slave	3.01	>= 3.0	1

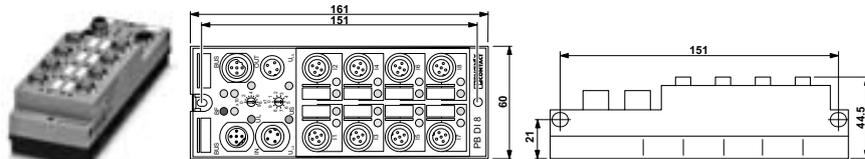
Plug terminals are not included, may be obtained as accessory  
For detailed information please see the data sheet or installation procedure ([www.lappautomation.com](http://www.lappautomation.com))

**Accessories**

- AS-Interface counter module see page 57
- AS-Interface long distance repeater see page 58
- AS-Interface power supply see page 59
- AS-Interface network extension see page 60
- AS-Interface plug terminals see page 61
- AS-Interface Distributor see page 56
- Powerkabel M12 see page 70 - 71

**New**

# PROFIBUS Modules



PROFIBUS Modules

**Info**

- Fully industrialised

**Benefits**

- Standardized interfaces
- For decentralized automatization
- Space saving because of compact dimensions
- Easy installation
- Fast and easy error tracking

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- PROFIBUS Interface

- Integration of field bus activation and input/output-level
- Connection to PROFIBUS DP using M12 connectors (B-coded)
- Connection type of digital Input/output as M12 for sensors/actuators
- LED diagnostic and status indication
- Flexible power supply concept
- Short circuit-/overload protection

**Approvals (Norm references)**



**Suitable cables**

- PROFIBUS cable: M12 connector on free conductor end see page 62
- PROFIBUS Cable: straight M12 connector M12 on straight M12 socket see page 63

**Technical data**

- Fieldbus system**  
PROFIBUS-DP
- Transmission speed**  
12 MBit/s  
Automatic baud rate detection
- Transmission physics**  
PROFIBUS-DP-compliant copper cable
- Address space assignment**  
1 ... 99, can be set from front side
- Connection type**  
2 M12 plug connectors, B-coded
- Installation**  
Panel mounting
- Number of poles**  
5
- IP** Degree of protection  
IP65/IP67 acc. IEC 60529
- Protection class**  
Class 3 as per VDE 0106, IEC 61440
- Ambient temperature (operation)**  
-25°C up to +60°C
- Ambient temperature (storage/transport)**  
-25°C up to +85°C
- Permissible humidity (storage/transport)**  
95 %
- Transmission rate**  
9.64 Kbaud to 12 Mbaud automatic detection
- Voltage consumption**  
24V DC

Part number	Article designation	Connection method	Number of inputs	Number of outputs	Maximum output current per channel [A]	PU
<b>With digital in-/outputs</b>						
22260740	AB-PB-DI4DO4-M12-2A	2, 3, 4-wire	4	4	2	1
22260762	AB-PB-DI8DO8-M12-0,5A	2, 3, 4-wire	8	8	0.5	1
<b>With digital inputs</b>						
22260738	AB-PB-DI8-M12	2, 3, 4-wire	8			1
22260739	AB-PB-DI16-M12	2, 3, 4-wire	16			1
<b>With digital outputs</b>						
22260742	AB-PB-DO8-M12-2A	2, 3-wire		8	2	1

Unused female connectors must be covered with protective caps (see accessories) to ensure IP65/67  
For detailed information please see the data sheet or installation procedure ([www.lappautomation.com](http://www.lappautomation.com))

**Accessories**

- ETHERLINE® PROFIBUS DP Ethernet-Gateways see page 53
- Screw plug for unoccupied sockets see page 41
- PROFIBUS M12 connectors that can be assembled see page 66
- Terminating resistor M12 for DeviceNet/CANopen/PROFIBUS see page 67
- M12 T distributor for PROFIBUS see page 68
- Powerkabel M12 see page 70

**New**

## ETHERLINE® PROFIBUS DP Ethernet-Gateways



### ■ Benefits

- Allows the spatial separation of control system and PROFIBUS® network
- Access data simultaneously to existing control systems
- De facto standard for device parameterization with FDT/DTM, regardless of manufacturer or device class
- Rapid integration through simple user interface and OPC server
- Select the number of PROFIBUS channels that fits your needs

### ■ Application range

- Industrial use
- Different kind of communication via BUS systems and/or Ethernet based systems
- UNITRONIC® Fieldbus sensor-/actuator wiring requirements

### ■ Product features

- Supported protocols: PROFIBUS® DP (can be configured as master or slave), DP-V1 Master, FMS, FDL, MPI
- Transfer rates: 9.6; 19.2; 45.45; 93.75; 187.5; 500; 1500; 3000; 6000; 12000 kBit/s
- Data collection for SCADA systems
- Connector: 9-pin D-sub
- Integrated Web-server

### ■ Approvals (Norm references)



- Mechanical stability
  - IEC 60068-2-27 Shock
  - IEC 60068-2-6 Vibration
- Interference proof
  - EN 61000-4-2 Discharge of static electricity
  - EN 61000-4-3 Electromagnetic fields
  - EN 61000-4-4 Fast transients (bursts)
  - EN 61000-4-5 Surge voltage symmetrical
  - EN 61000-4-6 Cable based RF faults

### ■ Suitable cables

- UNITRONIC® LAN PATCH COLOR see main catalogue 2008/09 page 320
- Patchcable RJ45 CAT.5e see main catalogue 2008/09 page 321
- PROFIBUS cable: M12 connector on free conductor end see page 62

### ■ Technical data

- Dimensions W x H x D in mm**  
**A-GW-P1E:** 47x131x111  
**A-GW-P3E:** 110x131x111
- Weight in g**  
**A-GW-P1E:** 400 g  
**A-GW-P3E:** 1250 g
- LED**  
 Power, Connection, Data, Faults
- Air humidity**  
 Rel.: max. 90% at +25°C (non-condensing)
- Installation**  
 35mm DIN top-hat rail (EN50022)
- Rated voltage**  
 18 up to 30V DC / 1A
- Degree of protection**  
 IP 20 (EN 60529)
- Range of temperature**  
 Operating temperature: 0°C up to +55°C  
 Storage temperature: -20°C to +70°C

Part number	Article designation	Port type	Connection type	PU
<b>PROFIBUS 1 channel</b>				
21700002	ETHERLINE® A-GW-P1E	1 x 10/100BaseTX, 1 x PROFIBUS	RJ45, 9-pos. SUB-D socket	1
<b>PROFIBUS 3 channel</b>				
21700012	ETHERLINE® A-GW-P3E	1 x 10/100BaseTX, 3 x PROFIBUS	RJ45, 9-pos. SUB-D socket	1

For detailed information please see the data sheet or installation procedure ([www.lappautomation.com](http://www.lappautomation.com))

**New**

# DeviceNet Modules



DeviceNet Modules

Info

- Fully industrialised

**Benefits**

- Standardized interfaces
- For decentralized automatization
- Space saving because of compact dimensions
- Easy installation
- Fast and easy error tracking

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- DeviceNet Interface

- Integration of field bus activation and input/output-level
- Connection to DeviceNet™ using M12 connectors (A-coded)
- Connection type of digital Input/output as M12 for sensors/actuators
- LED diagnostic and status indication
- Flexible power supply concept
- Short circuit-/overload protection

**Approvals (Norm references)**



**Suitable cables**

- DeviceNet/CANopen Cable, M12 connector on free conductor end see page 64
- S/A DeviceNet/CANOpen cable, M12 connector on M12 socket see page 65

**Technical data**

- Fieldbus system**  
DeviceNet™
- Transmission speed**  
125 kBit/s, 250 kBit/s, 500 kBit/s  
Automatic baud rate detection
- Transmission physics**  
Copper cable in acc. with 176524 specification
- Address space assignment**  
1 ... 63, can be set
- Connection type**  
2 M12 plug connectors, A-coded
- Installation**  
Panel mounting
- Number of poles**  
5
- IP** **Degree of protection**  
IP65/IP67
- Protection class**  
Class 3 as per VDE 0106, IEC 61440
- Ambient temperature (operation)**  
-25°C up to +60°C
- Ambient temperature (storage/transport)**  
-25°C up to +85°C
- Permissible humidity (storage/transport)**  
95 %
- Transmission rate**  
125 kBaud, 250 kBaud, 500 kBaud automatic detection
- Voltage consumption**  
24V DC

Part number	Article designation	Connection method	Number of inputs	Number of outputs	Maximum output current per channel [A]	PU
<b>With digital in-/outputs</b>						
22260745	AB-DN-DI4DO4-M12-2A	2, 3, 4-wire	4	4	2.0	1
22260763	AB-DN-DI8DO8-M12-0,5A	2, 3, 4-wire	8	8	0.5	1
<b>With digital inputs</b>						
22260743	AB-DN-DI8-M12	2, 3, 4-wire	8			1
22260744	AB-DN-DI16-M12	2, 3, 4-wire	16			1
<b>With digital outputs</b>						
22260747	AB-DN-DO8-M12-2A	2, 3-wire		8	2.0	1

Unused female connectors must be covered with protective caps (see accessories) to ensure IP65/67  
For detailed information please see the data sheet or installation procedure ([www.lappautomation.com](http://www.lappautomation.com))

**Accessories**

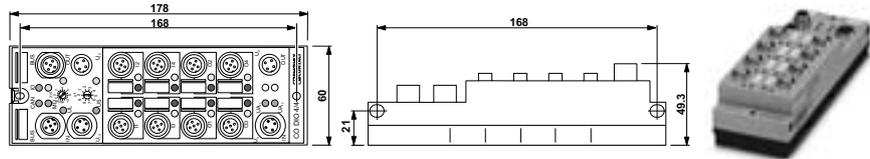
- Screw plug for unoccupied sockets see page 41
- Terminating resistor M12 for DeviceNet/CANopen/PROFIBUS see page 67
- S/A T-connector M12 as parallel distributor see page 69

**New**

# CANopen Modules

**Info**

- Fully industrialised



CANopen Modules

**Benefits**

- Standardized interfaces
- For decentralized automatization
- Space saving because of compact dimensions
- Easy installation
- Fast and easy error tracking

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- CANOpen Interface

- Integration of field bus activation and input/output-level
- Connection to CANopen using M12 connectors (A-coded)
- Connection type of digital Input/output as M12 for sensors/actuators
- LED diagnostic and status indication
- Flexible power supply concept
- Short circuit-/overload protection

**Approvals (Norm references)**



**Suitable cables**

- DeviceNet/CANopen Cable, M12 connector on free conductor end see page 64
- S/A DeviceNet/CANopen cable, M12 connector on M12 socket see page 65

**Technical data**

**Fieldbus system**  
CANopen

**Transmission speed**  
10, 20, 50, 125, 250, 500, 1000 kBit/s  
Automatic baud rate detection

**Transmission physics**  
Copper cable with optional power supply in acc. with CAN standard

**Address space assignment**  
1 ... 126, can be set

**Connection type**  
2 M12 plug connectors, A-coded

**Installation**  
Panel mounting

**Number of poles**  
5

**IP** **Degree of protection**  
IP65/IP67

**Protection class**  
Class 3 as per VDE 0106, IEC 61440

**Temperature** **Ambient temperature (operation)**  
-25°C up to +60°C

**Ambient temperature (storage/transport)**  
-25°C up to +85°C

**Permissible humidity (storage/transport)**  
95 %

**Transmission rate**  
Maximum 1 Mbaud automatic detection

**Voltage consumption**  
24V DC

Part number	Article designation	Connection method	Number of inputs	Number of outputs	PU
<b>With digital in-/outputs</b>					
22260750	AB-CAN-DI4DO4-M12-2A	2, 3, 4-wire	4	4	1
22260764	AB-CAN-DI8DO8-M12-0,5A	2, 3, 4-wire	8	8	1
<b>With digital inputs</b>					
22260748	AB-CAN-DI8-M12	2, 3, 4-wire	8		1
22260749	AB-CAN-DI16-M12	2, 3, 4-wire	16		1
<b>With digital outputs</b>					
22260752	AB-CAN-DO8-M12-2A	2, 3-wire		8	1

Unused female connectors must be covered with protective caps (see accessories) to ensure IP65/67  
For detailed information please see the data sheet or installation procedure (www.lappautomation.com)

**Accessories**

- Screw plug for unoccupied sockets see page 41
- Terminating resistor M12 for DeviceNet/CANopen/PROFIBUS see page 67
- S/A T-connector M12 as parallel distributor see page 69

**New**

# AS-Interface Distributor



Part no.: 22260802



Part no.: 22260800



Part no.: 22260805

**Info**

- For data- and power supply

**Benefits**

- Inexpensive and efficient wiring for AS-Interface installations
- Space saving because of compact dimensions
- Easy installation
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- Passive AS-Interface distributor for 1 or 2 AS-Interface flat-ribbon conductors
- Distributor with integrated M12 socket (A-coded)
- H Distributor for distribution from 1 to 2 flat-ribbon conductors

- Distributor with round conductor connected on M12 socket (A-coded)
- Colour: black
- Rated current ≤ 4 A (H-distributor: I ≤ 8 A)

**Approvals (Norm references)**



**Design**

- Permanently flexible control cable
- Design: 4 x 0.34 mm<sup>2</sup> (42 x 0.1 mm)
- Conductor colours brown, white, blue, black
- Outer sheath: PUR, halogen-free
- Sheath color black

**Suitable cables**

- UNITRONIC® BUS ASI see main catalogue 2008/09 page 291
- UNITRONIC® BUS FD ASI see main catalogue 2008/09 page 291

**Technical data**

**Fieldbus system**  
AS-Interface

**Connection type**  
Flat-ribbon cable penetration technique

**Installation**  
Panel mounting



**Degree of protection**  
IP 67  
(H-distributor: IP69k)



**Ambient temperature (operation)**  
-25°C up to +75°C

Part number	Article designation	PU
<b>Distributor for 1 flat-ribbon conductor on integrated 2-pos. M12 socket</b>		
22260800	AB-ASI-J-Y-N-M12FS	1
<b>Distributor for 2 flat-ribbon conductors on integrated 4-pos. M12 socket</b>		
22260801	AB-ASI-J-Y-B-M12FS	1
<b>H Distributor for distribution from 1 to 2 flat-ribbon conductors</b>		
22260802	AB-ASI-J-Y-Y-N	1
<b>Distributor for 1 flat-ribbon conductor, 1m PUR round conductor on straight 2-pos. M12 socket</b>		
22260803	AB-ASI-J-Y-N-PUR-1,0-M12FS	1
<b>Distributor for 1 flat-ribbon conductor, 2m PUR round conductor on straight 2-pos. M12 socket</b>		
22260804	AB-ASI-J-Y-N-PUR-2,0-M12FS	1
<b>Distributor for 2 flat-ribbon conductors, 1m PUR round conductor on straight 4-pos. M12 socket</b>		
22260805	AB-ASI-J-Y-B-PUR-1,0-M12FS	1
<b>Distributor for 2 flat-ribbon conductors, 2m PUR round conductor on straight 4-pos. M12 socket</b>		
22260806	AB-ASI-J-Y-B-PUR-2,0-M12FS	1

Copper price basis: including  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

**New**

## AS-Interface counter module



**Info**

- **Universal AS-Interface counter module**

### ■ Benefits

- Standardized interfaces
- Easy installation
- Fast and easy assembly
- Compact AS-Interface counter module for counting events, distance and speed measurement

### ■ Application range

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

### ■ Product features

- Two count, distance or speed values presettable via AS-Interface
- Output switching action selectable if preset value is reached
- Detection of goods to be counted or measured with any industrial 2-wire or 3-wire binary sensor
- AS-Interface Version 3.0
- Connection by screw-plug terminals or spring-plug terminals

### ■ Approvals (Norm references)



### ■ Technical data

<b>Fieldbus system</b>	AS-Interface
<b>Connection type</b>	Connector for screw-plug terminals or spring-plug terminals
<b>Installation</b>	DIN rail adapter
<b>IP</b> <b>Degree of protection</b>	IP 20
<b>Protection class</b>	II
<b>Temperature</b> <b>Ambient temperature (operation)</b>	-25 °C up to +60 °C

Part number	Article designation	PU
22260810	AB-ASI-C	1

Plug terminals are not included, may be obtained as accessory  
 For detailed information please see the data sheet or installation procedure ([www.lappautomation.com](http://www.lappautomation.com))

### ■ Accessories

- AS-Interface power supply see page 59
- AS-Interface plug terminals see page 61

**New**

## AS-Interface long distance repeater



Info

- Extensions up to 2000 m

### ■ Benefits

- Standardized interfaces
- Easy installation
- Fast and easy assembly
- AS-Interface Repeater for extensions of networks from 200 m up to 2000 m

### ■ Application range

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

### ■ Product features

- Full data transfer rate as standard AS-Interface
- LEDs show communication activity for easy setup
- AS-Interface Version 3.0
- Connection by screw-plug terminals or spring-plug terminals

### ■ Approvals (Norm references)



### ■ Technical data

**Fieldbus system**

AS-Interface

**Connection type**

Connector for screw-plug terminals or spring-plug terminals

**Installation**

DIN rail adapter



**Degree of protection**

IP 20

**Protection class**

II



**Ambient temperature (operation)**

-25°C up to +70°C

Part number	Article designation	PU
22260811	AB-ASH-LDR2000	1

Plug terminals are not included, may be obtained as accessory

Note: At least two long distance repeater required for network extension

For detailed information please see the data sheet or installation procedure ([www.lappautomation.com](http://www.lappautomation.com))

### ■ Accessories

- AS-Interface plug terminals see page 61

**New**

## AS-Interface power supply



**Info**

- Fully industrialised

**Benefits**

- Compact AS-Interface power supply for mounting on DIN rail
- Easy installation
- Space saving because of compact dimensions
- For small AS-Interface networks

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- Supplies a nominal output current of  $I_N = 1.0 \text{ A}$
- Primary voltage range: 85 ...265 V AC (50/60 Hz)
- AS-Interface Voltage: 29.5 ...31.6 V DC PELV (acc. IEC61640)
- AS-Interface Specification 3.01
- Short circuit-/overload protection

**Approvals (Norm references)**



**Technical data**

- Fieldbus system**  
AS-Interface
- Connection type**  
Cage clamp termination: 0.3 - 3.5 mm<sup>2</sup>
- Installation**  
DIN rail adapter
- Degree of protection**  
IP 20
- Protection class**  
II
- Ambient temperature (operation)**  
-10°C to +60°C
- Ambient temperature (storage/transport)**  
-25°C up to +85°C

Part number	Article designation	PU
22260812	AB-ASI-PS-1A	1

PELV ("protective extra low voltage" according to IEC61640)  
For detailed information please see the data sheet or installation procedure ([www.lappautomation.com](http://www.lappautomation.com))

**New**

## AS-Interface network extension



Info

- Undervoltage limit detection integrated

### ■ Benefits

- Extension of AS-Interface network lengths without additional repeaters
- Every topology possible
- Standardized interfaces
- Easy installation

### ■ Application range

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

### ■ Product features

- AS-Interface network lengths of up to 200m
- Undervoltage limit detection (threshold: app. 26.5 V), green LED flashes if supply voltage too low and sends information to the master respectively
- AS-Interface Specification 3.01
- Housing diameter: 20 mm / Height: 45 mm
- Provided with thread to AS-Interface distributor (see accessories)

### ■ Approvals (Norm references)



### ■ Design

- Compact design (Z plug)

### ■ Technical data

**Fieldbus system**  
AS-Interface

**Connection type**  
M12 A-coded connectors

**Installation**  
Screw connection

**Number of poles**  
4



**Degree of protection**  
IP 67



**Ambient temperature (operation)**  
-25°C up to +70°C

Part number	Article designation	PU
<b>With optical voltage indication by green LED</b>		
22260813	AB-ASI-NE200LED	1
<b>With voltage control by reply to the master (without LED)</b>		
22260814	AB-ASI-NE200	1

For detailed information please see the data sheet or installation procedure ([www.lappautomation.com](http://www.lappautomation.com))

### ■ Accessories

- AS-Interface Distributor see page 56

**New**

## AS-Interface plug terminals



**Info**

- Accessories for AS-Interface Module IP20/IP30



**Benefits**

- Easy assembly
- Fast connect adapter terminals
- Enables the individual usage as tension or screw plug terminals
- Flexible connection solutions

**Application range**

- Automation technology
- Mechanical engineering

- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- Optional plug terminals for AS-Interface module IP20/IP30
- Fast-connect connection type
- Versions for 16 or 32 contacts
- Black

**Approvals (Norm references)**



**Suitable tools**

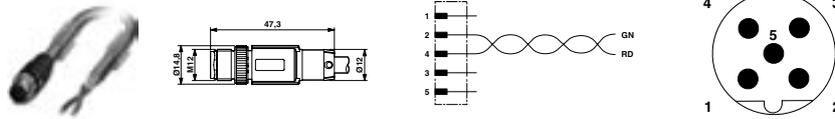
- Kraftform® adjustable torque screwdriver/ Kraftform Kompakt® Set see page 72

Part number	Article designation	PU
<b>AS-Interface screw plug terminals, 2x16 pos, 0.14-2.5 mm</b>		
22260815	AB-ASI-XS16	1
<b>AS-Interface screw plug terminals, 4x4 pos, 0.14-2.5 mm</b>		
22260817	AB-ASI-XS4	1
<b>AS-Interface tension plug terminals, 8x4 pos, 0.2-2.5 mm</b>		
22260816	AB-ASI-XT16	1
<b>AS-Interface tension plug terminals, 4x4 pos, 0.2-2.5 mm</b>		
22260818	AB-ASI-XT4	1

For detailed information please see [www.lappautomation.com](http://www.lappautomation.com)

**New**

## PROFIBUS cable: M 12 connector on free conductor end



PROFIBUS cable: M 12 connector on free conductor end

**Info**

- Pre-assembled PROFIBUS signal cable

**Benefits**

- Inexpensive and efficient wiring for PROFIBUS installations
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 2-pos. PROFIBUS cable shielded

- 5-pos. connector, M12 B-coded (inverse)
- Design with straight socket or straight plug on free conductor end
- The cables have marker carries
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- PUR halogen-free shielded cable
- Permanently flexible control cable
- Structure: 19 x 0,13 mm
- Conductors color red, grün
- Sheath violet

**Technical data**

- Number of poles**  
2
- Degree of protection**  
IP65/IP67/IP69K
- Ambient temperature (operation)**  
Plug / socket  
-25°C to +90°C  
Cable, fixed installation  
-40°C up to +80°C  
Cable, flexible installation  
-20°C up to +80°C
- Contact material**  
CuSn
- Contact surface material**  
Ni/Au
- Coding**  
B - inverse
- Material, knurls**  
Zinc die-cast, (nickel-plated)
- Material of grip body**  
TPU, hardly inflammable, self-extinguishing
- Core colour**  
red, green
- External cable diameter**  
7,8 mm
- Conductor cross section**  
0,25 mm<sup>2</sup>
- External sheath, color**  
violett RAL 4001
- Outer sheath, material**  
PUR

Part number	Article designation	Length in m	Nominal current I <sub>N</sub> in A	Nominal voltage U <sub>N</sub> in V	Number of poles	PU
<b>Straight connector</b>						
22260767	AB-PB-M12MS-2,0PUR	2	4	250	2	1
22260768	AB-PB-M12MS-5,0PUR	5	4	250	2	1
22260769	AB-PB-M12MS-10,0PUR	10	4	250	2	1
<b>Straight socket</b>						
22260770	AB-PB-2,0PUR-M12FS	2	4	250	2	1
22260771	AB-PB-5,0PUR-M12FS	5	4	250	2	1
22260772	AB-PB-10,0PUR-M12FS	10	4	250	2	1

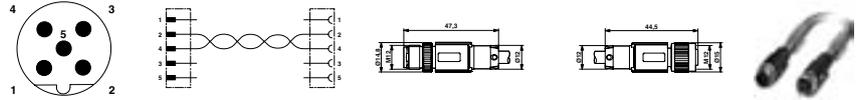
Copper price basis: including  
 Special cable length on request  
 For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

**New**

# PROFIBUS Cable: straight M 12 connector M 12 on straight M 12 socket

**Info**

- PROFIBUS signal cable ready for connection



PROFIBUS Cable: straight M 12 connector M 12 on straight M 12 socket

**Benefits**

- Inexpensive and efficient wiring for PROFIBUS installations
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 2-pos. PROFIBUS cable shielded

- M 12 B-coded (inverse)
- Design with straight connector on straight socket
- The cables have marker carries
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- PUR halogen-free shielded cable
- Permanently flexible control cable
- Structure: 19 x 0,13 mm
- Conductors colors red, grün
- Sheath violet

**Technical data**

**Number of poles**  
5

**Degree of protection**  
IP65 / IP67 / IP69K

**Ambient temperature (operation)**  
Plug / socket  
-25 °C to +90 °C  
Cable, fixed installation  
-40 °C up to +80 °C  
Cable, flexible installation  
-20 °C up to +80 °C

**Contact material**  
CuSn

**Contact surface material**  
Ni/Au

**Coding**  
B - inverse

**Material, knurls**  
Zinc die-cast, (nickel-plated)

**Material of grip body**  
TPU, hardly inflammable, self-extinguishing

**Core colour**  
red, green

**External cable diameter**  
7,8 mm

**Conductor cross section**  
0,25 mm<sup>2</sup>

**External sheath, color**  
violett RAL 4001

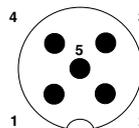
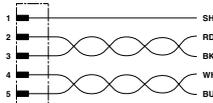
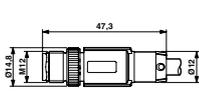
**Outer sheath, material**  
PUR

Part number	Article designation	Length in m	Nominal current I <sub>n</sub> in A	Nominal voltage U <sub>n</sub> in V	Number of poles	PU
22260773	AB-PB-M 12MS-0,3PUR-M 12FS	0.3	4	250	2	1
22260774	AB-PB-M 12MS-1,0PUR-M 12FS	1	4	250	2	1
22260775	AB-PB-M 12MS-2,0PUR-M 12FS	2	4	250	2	1
22260776	AB-PB-M 12MS-5,0PUR-M 12FS	5	4	250	2	1
22260777	AB-PB-M 12MS-10,0PUR-M 12FS	10	4	250	2	1

Copper price basis: including  
Special cable length on request  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

**New**

# DeviceNet/CANopen Cable, M 12 connector on free conductor end



DeviceNet/CANopen Cable, M 12 connector on free conductor end

**Info**

- Pre-assembled DeviceNet/CANopen signal cable

**Benefits**

- Inexpensive and efficient wiring for BUS installations, sensors and actuators
- Space saving because of compact dimensions
- Robust design
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 5-pos. DeviceNet/CANOpen cable, shielded

- M 12 A-coded

- Design with straight socket or straight plug on free conductor end
- The cables have marker carries
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- PUR halogen-free shielded cable
- Permanently flexible control cable
- Structure (signal line): 19 x 0,12 mm
- Conductors colors red-black, blue-white

**Technical data**

**IP** Degree of protection  
IP65/IP67/IP69K

**0+** Ambient temperature (operation)  
Plug / socket  
-25°C to +90°C  
Cable, fixed installation  
-40°C up to +80°C  
Cable, flexible installation  
-20°C up to +80°C

**+** Contact surface material  
Ni/Au

**Coding**  
A - Standard

**Material, knurls**  
Zinc die-cast, (nickel-plated)

**Material of grip body**  
TPU, hardly inflammable, self-extinguishing

**External cable diameter**  
6,7 mm

**Conductor cross section**  
0,2 mm<sup>2</sup>

**External sheath, color**  
violett RAL 4001

**Outer sheath, material**  
PUR

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	Number of poles	PU
<b>5 pole straight connector</b>						
22260789	AB-DN-M12MS-2,0PUR	2	60	4	5	1
22260790	AB-DN-M12MS-5,0PUR	5	60	4	5	1
22260791	AB-DN-M12MS-10,0PUR	10	60	4	5	1
<b>5 pole straight socket</b>						
22260792	AB-DN-2,0PUR-M12FS	2	60	4	5	1
22260793	AB-DN-5,0PUR-M12FS	5	60	4	5	1
22260794	AB-DN-10,0PUR-M12FS	10	60	4	5	1

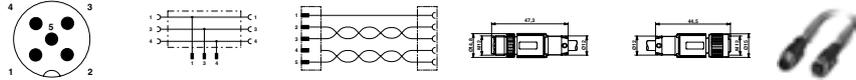
Copper price basis: including  
Special cable length on request  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

**New**

## S/A DeviceNet/CANopen cable, M12 connector on M12 socket

**Info**

- DeviceNet/CANopen signal cable ready for connection



S/A DeviceNet/CANOpen cable, M12 connector on M12 socket

**Benefits**

- Inexpensive and efficient wiring for BUS installations, sensors and actuators
- Space saving because of compact dimensions
- Fast and easy error tracking
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 5-pos. DeviceNet/CANOpen cable, shielded

- M12 A-coded
- Design with straight connector on straight socket
- The cables have marker carries
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- PUR halogen-free shielded cable
- Permanently flexible control cable
- Structure (signal line): 19 x 0,12 mm
- Structure (voltage line): 19 x 0,15 mm
- Conductors colors red-black, blue-white

**Technical data**

**IP** Degree of protection  
IP65/IP67/IP69K

**0-1** Ambient temperature (operation)  
Plug / socket  
-25 °C to +90 °C  
Cable, fixed installation  
-40 °C up to +80 °C  
Cable, flexible installation  
-20 °C up to +75 °C

**Contact surface material**  
Ni/Au

**Coding**  
A - Standard

**Material, knurls**  
Zinc die-cast, (nickel-plated)

**Material of grip body**  
TPU, hardly inflammable, self-extinguishing

**External cable diameter**  
6,7 mm

**Conductor cross section**  
0,2 mm<sup>2</sup>

**External sheath, color**  
violett RAL 4001

**Outer sheath, material**  
PUR

Part number	Article designation	Length in m	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	Number of poles	PU
<b>Straight connector on straight socket</b>						
22260795	AB-DN-M12MS-0,3PUR-M12FS	0,3	60	4	5	1
22260796	AB-DN-M12MS-1,0PUR-M12FS	1	60	4	5	1
22260797	AB-DN-M12MS-2,0PUR-M12FS	2	60	4	5	1
22260798	AB-DN-M12MS-5,0PUR-M12FS	5	60	4	5	1
22260799	AB-DN-M12MS-10,0PUR-M12FS	10	60	4	5	1

Special cable length on request  
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

**New**

## PROFIBUS M 12 connectors that can be assembled



**Info**  

- Fully shielded version

PROFIBUS M 12 connectors that can be assembled

**■ Benefits**

- Quick and easy on-site assembly
- Creating individual cable lengths
- Inexpensive and efficient wiring for PROFIBUS installations
- Space saving because of compact dimensions
- Standardized interfaces

**■ Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**■ Product features**

- 5-pos. shielded version
- M 12 B-coded (inverse)
- Free of substances which would hinder coating with paint or varnish
- Screw connection

**■ Approvals (Norm references)**



**■ Suitable cables**

- PROFIBUS cable: M 12 connector on free conductor end see page 62
- Cables for BUS-Systems PROFIBUS-DP/FMS/FIP see main catalogue 2008/09 page 279

**■ Technical data**

- Number of poles**  
5
- Degree of protection**  
IP67
- Ambient temperature (operation)**  
Plug / socket  
-40°C to +85°C
- Contact material**  
CuSn
- Contact surface material**  
Au
- Coding**  
B - inverse
- Material, knurls**  
Nickel-plated brass
- Material of grip body**  
Zinc die-cast, (nickel-plated)
- Sealing material**  
NBR
- Contact carrier material**  
PA 66
- Nominal voltage U<sub>N</sub>**  
60 V
- Nominal current I<sub>N</sub>**  
4 A
- PG Verschraubung**  
PG 9

Part number	Article designation	Conductor cross section stranded min. in mm <sup>2</sup>	Conductor cross section stranded max. in mm <sup>2</sup>	Conductor cross section AWG/kcmil min.	Conductor cross section AWG/kcmil max.	Cable Diameter min in mm	Cable Diameter max in mm	PU
<b>5 pole straight connector</b>								
22260653	AB-C5-M12MSB-PG9-SH-AU	0.25	0.75	24	18	6	8.5	1
<b>5 pole straight socket</b>								
22260646	AB-C5-M12FSB-PG9-SH-AU	0.25	0.75	24	18	6	8.5	1

For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

**New**

# Terminating resistor M 12 for DeviceNet/CANopen/PROFIBUS



Info

- Fully industrialised



Terminating resistor M 12 for DeviceNet/CANopen/PROFIBUS

**Benefits**

- Inexpensive termination of BUS cables
- Space saving because of compact dimensions
- Robust design
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- Free of substances which would hinder coating with paint or varnish
- For DeviceNet und CANopen applications (A-Standard coded)
- For PROFIBUS applications (B-inverse coded)

**Approvals (Norm references)**



**Design**

- Straight connector M12 and integrated termination resistor

**Technical data**

<b>IP</b>	<b>Degree of protection</b> IP65/IP67/IP69K
<b>0+1</b>	<b>Ambient temperature (operation)</b> Plug / socket -25 °C to +90 °C
	<b>Contact material</b> CuSn
	<b>Contact surface material</b> Ni/Au
	<b>Coding</b> B - inverse (PROFIBUS) A - Standard (DeviceNet/CANopen)
	<b>Material, knurls</b> Zinc die-cast, (nickel-plated)
	<b>Material of grip body</b> TPU, hardly inflammable, self-extinguishing
	<b>Contact carrier material</b> TPU GF
	<b>Nominal voltage U<sub>n</sub></b> 60 V
	<b>Nominal current I<sub>n</sub></b> 4 A

Part number	Article designation	Nominal current I <sub>n</sub> in A	Nominal voltage U <sub>n</sub> in V	Coding	Number of poles	PU
<b>For PROFIBUS applications (B-inverse coded)</b>						
22260722	AB-C4-M12MS-PB-TR	4	60	B - inverse	4	1
<b>For DeviceNet und CANopen applications (A-Standard coded)</b>						
22260766	AB-C5-M12MS-DN-TR	4	60	A - Standard	5	1

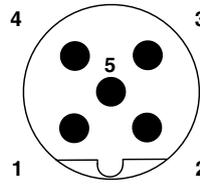
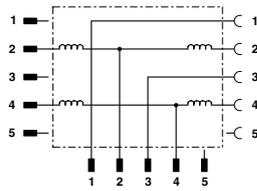
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

**Accessories**

- M 12 T distributor for PROFIBUS see page 68
- S/A T-connector M12 as parallel distributor see page 69

New

## M12 T distributor for PROFIBUS



M12 T distributor for PROFIBUS



Info

- Fully industrialised

### Benefits

- Inexpensive and efficient wiring for PROFIBUS installations
- Space saving because of compact dimensions
- Robust design
- Standardized interfaces

### Application range

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

### Product features

- 5-pos. PROFIBUS T-Connector
- M12 B-coded (inverse)
- Design with M12 plug to M12 plug and M12 socket
- Free of substances which would hinder coating with paint or varnish

### Approvals (Norm references)



### Technical data



Degree of protection  
IP68



Ambient temperature (operation)  
8Plug / socket  
-25°C to +80°C

Contact material  
Cu alloy

Contact surface material  
Ni/Au

Coding  
B - inverse

Material, knurls  
Nickel-plated brass

Material of grip body  
PUR

Sealing material  
Viton

Contact carrier material  
PUR

Nominal voltage  $U_N$   
60 V

Nominal current  $I_N$   
4 A

Part number	Article designation	Nominal current $I_N$ in A	Nominal voltage $U_N$ in V	Number of poles	PU
22260761	AB-C2-M12T-2XM12FS PB	4	60	5	1

For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

### Accessories

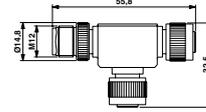
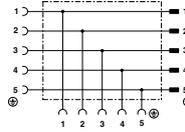
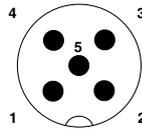
- Terminating resistor M12 for DeviceNet/CANopen/PROFIBUS see page 67

**New**

## S/A T-connector M12 as parallel distributor

**Info**

- For DeviceNet and CANopen!



S/A T-connector M12 as parallel distributor

**Benefits**

- Inexpensive and efficient wiring for BUS installations, sensors and actuators
- Space saving because of compact dimensions
- Robust design
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 5-pos. T-Connector DeviceNet/CANopen
- M12 A-coded
- Design as parallel distributor with M12 socket to M12 plug and M12 socket
- Free of substances which would hinder coating with paint or varnish

**Approvals (Norm references)**



**Technical data**

<b>Number of poles</b>	5
<b>Degree of protection</b>	IP65 / IP67
<b>Ambient temperature (operation)</b>	Plug / socket -25 °C to +90 °C
<b>Contact material</b>	CuZn
<b>Contact surface material</b>	Ni/Au
<b>Coding</b>	A - Standard
<b>Material, knurls</b>	Zinc die-cast, (nickel-plated)
<b>Material of grip body</b>	TPU, hardly inflammable, self-extinguishing
<b>Sealing material</b>	NBR
<b>Contact carrier material</b>	TPU GF
<b>Nominal voltage U<sub>N</sub></b>	60 V
<b>Nominal current I<sub>N</sub></b>	4 A

Part number	Article designation	Nominal voltage U <sub>N</sub> in V	Nominal current I <sub>N</sub> in A	Number of poles	PU
22260765	AB-C5-M12T-2XM12FS DN	60	4	5	1

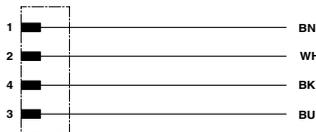
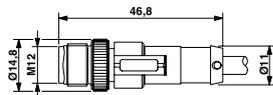
For detailed information please see the data sheet ([www.lappautomation.com](http://www.lappautomation.com))

**Accessories**

- Terminating resistor M12 for DeviceNet/CANopen/PROFIBUS see page 67

**New**

## Power cable: M12 connector or M12 socket on free conductor



**Info**

- Power cable, universally useable

Power cable: M12 connector or M12 socket on free conductor

**Benefits**

- Power connecting cable for aktive fieldbus modules
- Inexpensive and efficient wiring of sensors and actuators
- Space saving because of compact dimensions
- Customised construction of free conductor end
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 4-pos. Power cable
- M12 A-coded
- Design with straight connector or straight socket on free conductor end
- The cables have marker carries
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- PUR/PVC cable
- Permanently flexible control cable
- Structure: 42 x 0,15 mm

**Technical data**

**IP** Degree of protection  
IP65/IP67/IP69K

**0+** Ambient temperature (operation)  
Plug / socket  
-25°C to +90°C  
Cable, fixed installation  
-25°C up to +80°C  
Cable, flexible installation  
-5°C up to +80°C

**Contact material**  
CuSn

**Contact surface material**  
Ni/Au

**Coding**  
A - Standard

**Material, knurls**  
Zinc die-cast, (nickel-plated)

**Material of grip body**  
TPU, hardly inflammable, self-extinguishing

**Core colour**  
brown, white, blue, black

**External cable diameter**  
5,9 mm

**Conductor cross section**  
0,75 mm<sup>2</sup>

**External sheath, color**  
black RAL 9005

**Outer sheath, material**  
PUR

Part number	Article designation	Length in mm	Nominal current I <sub>n</sub> in A	Nominal voltage U <sub>n</sub> in V	Number of poles	PU
<b>4 pole straight connector</b>						
22260778	AB-PC4-M12MS-2,0PUR	2	4	250	4	1
22260779	AB-PC4-M12MS-5,0PUR	5	4	250	4	1
22260780	AB-PC4-M12MS-10,0PUR	10	4	250	4	1
<b>4 pole straight socket</b>						
22260781	AB-PC4-2,0PUR-M12FS	2	4	250	4	1
22260782	AB-PC4-5,0PUR-M12FS	5	4	250	4	1
22260783	AB-PC4-10,0PUR-M12FS	10	4	250	4	1

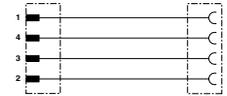
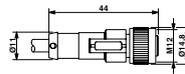
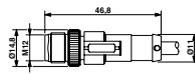
Copper price basis: including  
Special cable lengths, other outer sheath materials (e.g. PVC) and individual connector types on request  
For detailed information please see [www.lappautomation.com](http://www.lappautomation.com)

**New**

# Power cable: straight M12 connector on straight M12 socket

**Info**

- Powercable M12 ready for connection



S/A Power cable: straight M12 connector on straight M12 socket

**Benefits**

- Power connecting cable for aktive fieldbus modules
- Inexpensive and efficient wiring for BUS installations, sensors and actuators
- Space saving because of compact dimensions
- Fast and easy assembly
- Standardized interfaces

**Application range**

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

**Product features**

- 4-pos. Power cable
- M12 A-coded
- Design with straight connector on straight socket
- Free of substances which would hinder coating with paint or varnish
- Drag chain suitable

**Approvals (Norm references)**



**Design**

- PUR/PVC cable
- Permanently flexible control cable
- Structure: 42 x 0,15 mm
- Conductor colors brown, white, blue, black

**Technical data**

**IP** Degree of protection  
IP65/IP67/IP69K

**0-1** Ambient temperature (operation)  
Plug / socket  
-25 °C to +90 °C  
Cable, fixed installation  
-25 °C up to +80 °C  
Cable, flexible installation  
-5 °C up to +80 °C

**Contact material**  
CuSn

**Contact surface material**  
Ni/Au

**Coding**  
A - Standard

**Material, knurls**  
Zinc die-cast, (nickel-plated)

**Material of grip body**  
TPU, hardly inflammable, self-extinguishing

**External cable diameter**  
5,9 mm

**Conductor cross section**  
0,75 mm<sup>2</sup>

**External sheath, color**  
black RAL 9005

**Outer sheath, material**  
PUR

Part number	Article designation	Length in mm	Nominal current I <sub>n</sub> in A	Nominal voltage U <sub>N</sub> in V	Number of poles	PU
22260784	AB-PC4-M12MS-0,3PUR-M12FS	0.3	4	250	4	1
22260785	AB-PC4-M12MS-1,0PUR-M12FS	1	4	250	4	1
22260786	AB-PC4-M12MS-2,0PUR-M12FS	2	4	250	4	1
22260787	AB-PC4-M12MS-5,0PUR-M12FS	5	4	250	4	1
22260788	AB-PC4-M12MS-10,0PUR-M12FS	10	4	250	4	1

Copper price basis: including  
Special cable lengths, other outer sheath materials (e.g. PVC) and individual connector types on request

**New**

## Kraftform® adjustable torque screwdriver/Kraftform Kompakt® Set



Kraftform® adjustable torque screwdriver/Kraftform Kompakt® Set

**Benefits**

- Fatigue free due to ergonomic grip design
- Suitable for many EPIC® connector systems and in network/automation branche (Sensor-/Actuator wiring requirements)
- Simple, free assembly in any position
- Safety close at hand

**Application range**

- When screwing smaller screws, the user often relies on his specialist sense.
- In practice, this can often lead to significantly higher extracting values.
- The consequences are ripped-off screw heads and over-twisted screw threads.
- Solution is offered by this practical torque screwdriver for 0.3 - 1.2 Nm.

**Product features**

- Quick and easy tool change thanks to the quick-change chuck

**Design**

- Torque screw driver Kraftform® for 0,3- 1,2Nm
- Screw driver set Kraftform Kompakt® 10-pieces (Bit included: 1xR, 1xTZ, 1xTZ PH, 1xTZ PZ, 1xTZ TORX® in several versions incl.1 hand screw driver without torque system)

**Scope of delivery**

- Traceable calibration certificate contained in the scope of delivery

**Technical data**

**Caution**  
Can be used without hesitation in areas requiring ESD protection  
ESD version in acc. with EN 100-015 Part 1

**General**  
Phillips screwdriver PH (Phillips recess)

**Approvals**  
Robust industrial design with excellent accuracy in accordance with ISO 6789 / EN 26789

**Info**  
Controlled torque of 0.3-1.2Nm possible

**Colour delivered**  
Black

Part number	Article designation	Measuring range	Length in mm	Pieces / PU
61813958	Torque screwdriver Kraftform®	0.3 - 1.2	180	1
61813990	Kraftform Kompakt® 10			1

Kraftform® is a registered trademark of Wera (Hermann Werner GmbH & Co.KG)

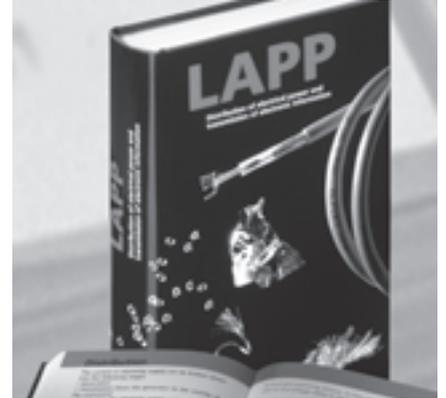
# Order these articles visiting [www.lappgroup.com/advertising](http://www.lappgroup.com/advertising)

## Guide, advisor, reference book

In this book, you will find all that is worth knowing about the generation, use, and distribution of electricity, as well as the technology of data communication, cables, control cables, and optic fibres. All of these topics are illustratively described and sup-

plemented with articles, tables and specialist terminology.

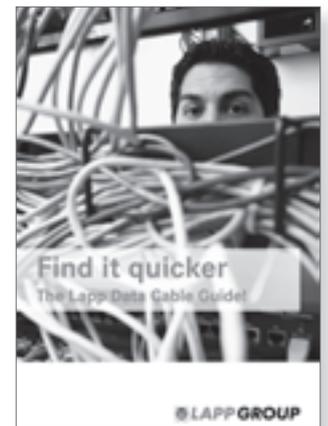
This is a book both for trainees and experienced practitioners. It is available in German, English or Russian.



## Lapp Data Cable Guide

Modern data communication now offers almost unlimited possibilities to interlink hardware components. A range of products to make all of these connections must be just as versatile: plugs, leads, cables,

interfaces. Lapp Kabel offers you a complete range – and the Lapp Data Cable Guide is the tool to enable you to find the right solution quickly and with confidence.



### Safety

Without exception our products are tested for application safety in accordance with laid down standards and our own regulations, which complement the standards. Relevant legal requirements and safety regulations are also observed. Provided due care and attention is paid, the possibility of product-specific danger to the user may thus reasonably be excluded. Where products are used carelessly or incorrectly, however, considerable

danger to persons and the environment may arise. For this reason, our cables must only be processed and /or used responsibly by trained electricians or specialists. This catalogue contains general information for the application of each product. Independent of such information, the application standards DIN VDE 0298 and DIN VDE 001 for cables will apply. Excerpts from these standards, as well as complementary selection

and application tables, design and installation guidelines, are contained in the tables in the appendix to the main catalogue. Our machines and installation tools are – where necessary – designed in accordance with the machine guidelines and display the CE identification mark. It must be noted, however, that our machines and installation tools must only be used by trained specialized personnel and for the purpose for

which they were designed. ©Copyright by U.I. Lapp GmbH. Reprinting or reproduction of the text or the illustrations may be made only with written approval and with correct indication of source. We reserve the right to make modifications to our products, especially those based on technical improvements or continued development. All illustrations and numerical data etc. are therefore without warranty and are subject to change.

# ÖLFLEX®

# UNITRONIC®

# HITRONIC®

# SKINTOP®

# SILVYN®

# EPIC®

# FLEXIMARK®

# ETHERLINE®

**Terms of Trade:**

Our general conditions of sale can be  
downloaded from our website  
[www.lappkabel.de/services](http://www.lappkabel.de/services)



[www.lappgroup.com](http://www.lappgroup.com)

To contact your local Lapp Group representative  
please visit [www.lappgroup.com/worldwide](http://www.lappgroup.com/worldwide)