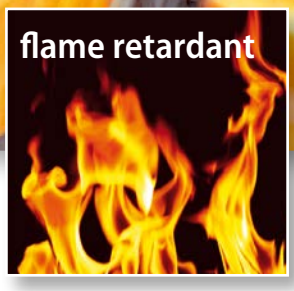
ICON® Bus



ICON Bus

… meets or exceeds the increased requirements of state-of-the-art automation technology.

- ICON Bus offers a wide range of bus cable types designed for various bus systems and is available in standard and special designs which meet ICON Base, ICON Safe, ICON Chem and ICON Arctic requirements.
- The ICON Bus product family covers the whole range of bus cables used in automation technology, such as Foundation Fieldbus, Profibus DP and PA, CANbus and MODbus, etc.
- ICON Bus quality products meet or exceed the most stringent electrical requirements, such as Type A according to IEC 61158-2.
- ICON Bus cables were designed according to recognised standards, such as EN 50288-7, UL 13 and FF-844.
- Available via worldwide warehousing.
- Products with approvals acc. to UL, GOST oe FF-844, etc.

LEONI

ICON Bus
Fieldbus Cables

In automation technology, a wide range of factors determine which field-bus system to use. As a result of its technical properties, each bus system is adapted to a certain sector and a certain application.

The ICON Bus product family includes all bus cables used in automation technology such as Foundation™ Fieldbus, Profibus DP and PA, CAN and Modbus.

All of these types of bus are supplied in various different versions. The basic types are the standard designs for permanent installation. In order to optimize the time required for installation, they are also available in the FA (Fast Assembly) version for easy access with a special tool. "Flex" products are available for flexible applications. The Eco version is a standard cable without a braided shield. For use as trunk cables with reduced voltage drop there are the long-distance versions with insulation of PE.

ICON Bus quality products meet the most stringent electrical requirements such as those made on Type A according to IEC 61158-2.

It goes without saying that ICON Bus includes a large number of products with various forms of certification such as UL, GOST or FF-844. Project requirements can thus generally be met with short delivery times and without the necessity of further certification.

The typical feature of ICON Bus is the rapid availability of most types as they are available from stock worldwide.

The bus cables of the ICON Bus are designed according to recognized standards such as EN 50288-7, UL 13 or FF-844.

www.leoni-industrial-projects.com
ICON Bus

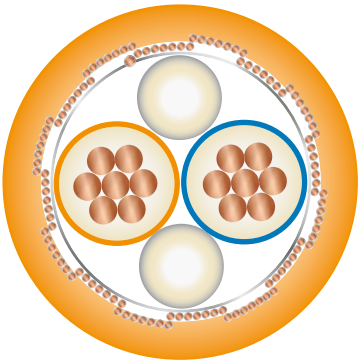
Ranking for marked criteria as			
excellent	+++	limited	○
improved	++	depending on national regulations	■
good	+		
complied	●	on request	✉

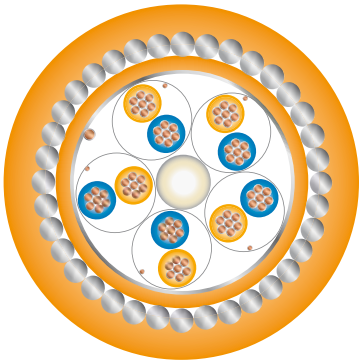
The ICON Bus product range

ICON Fieldbus Cables		Profibus DP								Profibus PA								
Insulation		Foamed polyethylene with skin								Foamed polyethylene with skin						XLPE		
		ICON Bus S0900 MR CEOS	ICON Bus S0900 MR COS	ICON Bus S0900 MR CEOS	ICON Bus S0900 MP COS	ICON Bus S0910 MR COS	ICON Bus S0900 M9 CEOS	ICON Bus S0900 MS CEOS	ICON Bus S0900 MS COS	ICON Bus S0900 MR CEOS	ICON Bus S0900 MR COS	ICON Bus S0900 MR CEOS	ICON Bus S0910 M0 CEOS	ICON BUS S0900 MS CEOS	ICON Bus S0910 M5 CEOS	ICON Bus S0100 M1 CEOS	ICON Bus S0B10 M3 OS	ICON Bus S0B00 M3 OS
Electrical properties																		
impedance	150 Ω	●	●	●	●	●	●	●	●									
	120 Ω																	
	105 Ω																	
	100 Ω									●	●	●	●	●	●	●	●	●
type A profile acc. to IEC 61158-2		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
operating voltage	300 V	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
FISCO for IS-Application										●	●	●	●	●	●	●	●	●
Temperature range – installation																		
	–5 up to +50 °C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Temperature range – operation																		
	–40 up to +70 °C	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
	–40 up to +90 °C															●	●	●
	–40 up to +105 °C																	
Chemical properties																		
oil resistance		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
zero halogen								●	●					●	●			
resistance to chemicals		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Reaction to fire																		
flame test on single cables	IEC 60332-1-2	●	●	●		●		●	●	●	●	●	●	●	●	●	●	●
flame test on bunched cables	IEC 60332-3-24 (Cat. C)	●	●	●		●		●	●	●	●	●	●	●	●	●	●	●
smoke density	IEC 61034-2, < 40 %							●	●					●	●		++	++
light transmittance	IEC 61034-2, > 60 %							●	●					●	●		++	++
Circuit inegrity	IEC 60331-21 (75 °C; 90 min)																++	++
Installation & environmental properties																		
suitable for direct burial						●	●						●		●		●	
suitability for tensile loads		○	○	○	○	+++	○	○	○	○	○	○	+++	○	+++	○	++	○
suitability for pressure and impact loads						+++							+++		+++		++	
resistance against rodents						++							++		++		○	
protection against inducing currents						++							++		++		○	

| ICON Fieldbus Cables | | Foundation Fieldbus | | | | | | | | | | | | | | | | | |

See two examples of our ICON Bus cable designs:





Characteristics

Application	Fieldbus cable, Type A, for bus systems Fieldbus™ Foundation acc. to IEC 61158-2. Suitable for use in hazardous classified locations class I and class II division 2 acc. to NEC 501.10(B) and NEC 502.10(B) or zone 1 and zone 2, group II, acc. to IEC 60079-14, resp. Recommended for indoor and outdoor installation, on racks, trays, in conduits, in dry and wet locations; not for direct burial.	Fieldbus cable, Type A, for bus systems Fieldbus™ Foundation acc. to IEC 61158-2 and FF-844. Suitable for use in hazardous classified locations class I and class II division 2 acc. to NEC 501.10(B) and NEC 502.10(B) or zone 1 and zone 2, group II, acc. to IEC 60079-14, resp. Recommended for indoor and outdoor installation, on racks, trays, in conduits, in dry and wet locations; for direct burial. Recommended for increased mechanical stresses.
Conductor	plain annealed copper wire, stranded, size AWG 18	tinned copper wire, stranded, size AWG 18/7
Insulation	foamed polyethylene with skin layer	cross linked polyethylene
Individiual screen	–	plastic coated aluminium tape in contact with tinned copper drain wire
Collective screen	plastic coated aluminium tape in contact with tinned copper drain wire and tinned copper wire braid	plastic coated aluminium tape in contact with tinned drain wire and tinned copper wire braid
Inner sheath	–	polyvinyl chloride PVC, orange
Armour	–	galvanised round steel wires
Outer sheath	polyvinyl chloride PVC, orange	polyvinyl chloride PVC, orange
Cable type	ICON BUS 50900 M0 CEOS	ICON BUS 51110 M1 IS/OS

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