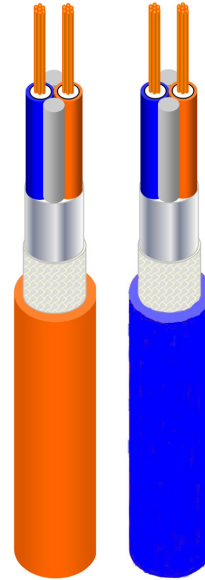


FOUNDATION fieldbus cable

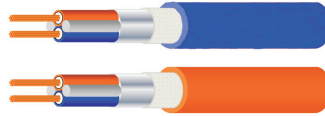


FOUNDATION fieldbus-H1 cable

- Non-Ex (Hazardous) applications
- Ex (Hazardous) applications

FOUNDATION fieldbus cable

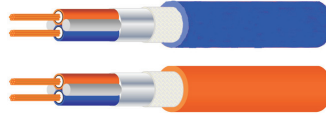
FOUNDATION fieldbus-H1 cable



M10771

	NFC080-NO NFC080-EX	NFC150-NO NFC150-EX	NFC250-NO NFC250-EX
Application	Standard fieldbus cable for FOUNDATION fieldbus-H1 with additional power supply for the devices, suitable for insulation displacement connections or M12 connectors. [FB-02YS(St+Ce)Y-fl]	Long-distance fieldbus cable for FOUNDATION fieldbus-H1 with additional power supply for the devices, cable with low voltage drop along the line. [FB-2Y(St+Ce)Y-fl]	
Example Sketch	Recommended for indoor and outdoor installation, in dry and wet locations, on racks, on trys and in conduits. Not suitable for direct burial.		
Internet	http://www.abb.com/fieldbus		
Standard	IEC 61158 Part 2		
Classification	Typ A		
Interface	IEC 61158		
Conductor	plain annealed copper wire, stranded		
	AWG 18/7 ≈ 0.88 mm ²	AWG 16/7 ≈ 1.3 mm ²	AWG 14/7 ≈ 2.1 mm ²
Insulation	foamed polyethylene with skin layer	polyethylene	
Color code	(+) core: orange, (-) core: blue		
Screen	plastic coated aluminium tape, metallic surface outside in contact with a tinned copper drain wire and tinned copper wire braid		
Outer sheath	polyvinyl chloride PVC, color: orange (NFCnnn-NO), blue [IS] (NFCnnn-EX)		
Cable marking	FIELDBUS CABLE IEC 61158-2 100Ω FF H1 (UL) PLTC xx/7 AWG 75°C SUN RES – length marking		
Overall diameter	approx. 7.6 ±0,4 mm	approx. 9.4 ±0,6 mm	approx. 11.5 ±1,0 mm
Weight	approx. 75 kg/km	approx. 115 kg/km	approx. 170 kg/km
Max. pulling tension	90 N	130 N	200 N
Min. bending radius	7.5 x cable overall diameter		
Temperature range	-40 ... 75 °C during operation, -5 ... 50 °C for installation		
UV resistant	UL 1581 article 1200		
Oil resistant	ICEA S-73-532		
Flame propagation	Test on single cable: UL 13 (vertical tray), Test on bunched cable: IEC 60332-3-24 (Cat. C)		
Smoke density	—		
Halogen free	—		
HCL emission	IEC 60754-1, max. 17 %		
Oxygen index of outer sheath	ASTM D 2863 (min. 30 %)		
Explosion protection	(NFCnnn-EX only) for Ex i applications [IS], Class I / II Division 2 acc. to NEC 501.10(B) and NEC 502.10(B) or Zone 1 / 2, Group II, acc. to IEC 60079-14.		
FISCO-approval	FISCO not for passive components		
Approval	CE, UL (listed as PLTC acc. to UL 13)		

FOUNDATION fieldbus-H1 cable



M10771

	NFC080-NO NFC080-EX	NFC150-NO NFC150-EX	NFC250-NO NFC250-EX
--	------------------------	------------------------	------------------------

Electrical properties at 20 °C

Conductor resista. (Loop) (R_c)	max. 43.6 Ω /km	max. 28.5 Ω /km	max. 17.9 Ω /km
Screen resistance	nom. 12 Ω /km		
Attenuation at 39 kHz	max. 3.0 dB/km		
Inductance (L_c)	nom. 0.7 mH/km		
Mutual capacitance (C_c)	nom. 60 nF/km		
Capac. unbalance to earth	max. 4 nF/km		
Impedance	100 \pm 20 Ω		
Propagation delay change (7.9 kHz ... 39 kHz)	max. 1.7 μ s/km		
Test voltage (Core / core and core / screen)	1500 V		
Operating voltage	max. 300 V		

FOUNDATION fieldbus cable

Ordering information

FOUNDATION fieldbus-H1 cable			Catalog No.
NFC080-NO	65 m	(76770102)	9890166
FF H1 cable, orange, 2 x 0.88 mm ² (AWG18/7), Type A. Loop resistance 43.6 Ω/km, UL approval, incl. special drain wire, for fixed installation indoor and outdoor, on racks and in conduits.			
	330 m	(76770102)	(Note 1) 9890167
FF H1 cable, orange, 2 x 0.88 mm ² (AWG18/7), Type A. Loop resistance 43.6 Ω/km, UL approval, incl. special drain wire, for fixed installation indoor and outdoor, on racks and in conduits.			
	1000 m	(76770102)	(Note 1) 9890168
FF H1 cable, orange, 2 x 0.88 mm ² (AWG18/7), Type A. Loop resistance 43.6 Ω/km, UL approval, incl. special drain wire, for fixed installation indoor and outdoor, on racks and in conduits.			
NFC150-NO	1000 m	(79290105)	(Note 1) 9890169
FF H1 cable, orange, 2 x 1.3 mm ² (AWG 16/7), Type A. Loop resistance 28.5 Ω/km, UL approval, incl. special drain wire, for fixed installation indoor and outdoor, on racks and in conduits.			
NFC250-NO	1000 m	(79290107)	(Note 1) 9890170
FF H1 cable, orange, 2 x 2.1 mm ² (AWG 14/7), Type A. Loop resistance 17.9 Ω/km, UL approval, incl. special drain wire, for fixed installation indoor and outdoor, on racks and in conduits.			
NFC080-EX	65 m	(76770103)	9890171
FF H1 cable, blue, 2 x 0.88 mm ² (AWG18/7), Type A, for intrinsic safety applications (Ex i). Loop resistance 43.6 Ω/km, UL approval, incl. special drain wire, for fixed installation indoor and outdoor, on racks and in conduits.			
	330 m	(76770103)	(Note 1) 9890172
FF H1 cable, blue, 2 x 0.88 mm ² (AWG18/7), Type A, for intrinsic safety applications (Ex i). Loop resistance 43.6 Ω/km, UL approval, incl. special drain wire, for fixed installation indoor and outdoor, on racks and in conduits.			
	1000 m	(76770103)	(Note 1) 9890173
FF H1 cable, blue, 2 x 0.88 mm ² (AWG18/7), Type A, for intrinsic safety applications (Ex i). Loop resistance 43.6 Ω/km, UL approval, incl. special drain wire, for fixed installation indoor and outdoor, on racks and in conduits.			
NFC150-EX	1000 m	(79290104)	(Note 1) 9890174
FF H1 cable, blue, 2 x 1.3 mm ² (AWG16/7), Type A, for intrinsic safety applications (Ex i). Loop resistance 28.5 Ω/km, UL approval, incl. special drain wire, for fixed installation indoor and outdoor, on racks and in conduits.			
NFC250-EX	1000 m	(79290106)	(Note 1) 9890175
FF H1 cable, blue, 2 x 2.1 mm ² (AWG14/7), Type A, for intrinsic safety applications (Ex i). Loop resistance 17.9 Ω/km, UL approval, incl. special drain wire, for fixed installation indoor and outdoor, on racks and in conduits.			

Note 1: incl. no-return cable drum

Contact us

ABB Automation GmbH

Service Instrumentation

Kallstadter Straße 1

68309 Mannheim, Germany

Customer service center: +49 (0)180 5 222 580*

E-Mail: automation.service@de.abb.com

www.abb.com

*14 cents/minute from German landlines,
max. 42 cents/minute from mobiles.

Note

We reserve the right to make technical changes and changes affecting content to this document at any time without prior notice.

Orders are subject to the agreed detailed terms and conditions. ABB cannot be held responsible for any errors or omissions in this document.

We reserve all rights to this document and its content, including images. This document must not be copied, shared with third parties, or its content (in whole or in part) used without the prior written permission of ABB.

Copyright© 2011 ABB
All rights reserved

3KXN667000R1001

10/63-6.67-EN Rev. C 11..2011