



People | Power | Partnership

## **HARTING** Han-Modular® Flexbox The next dimension of modularity

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The housing that adapts to your requirements

## Easy installation: HARTING Han-Modular® Flexbox

HARTING has expanded its housing series by an innovative, highly flexible and time saving solution: the **Han-Modular® Flexbox**. Its flexibility is based on a modular building block system, which enables the user to combine several housings into a single connector.

By implementing the Han-Modular® Flexbox for example into an energy chain system, the time needed to connect, disconnect or replace elements is reduced by over 90%. This results in a reduction of machine downtimes and keeps the supply of power, data and signals running stable.



Quick and safe connection



Flexible building block system



Suitable for drag chains



## Modular housing and inserts: HARTING Han-Modular® Flexbox

The Han-Modular® Flexbox offers a very slim design. This saves space and enables a high pin count in every application, especially when multiple housings are combined to one connector. The integrated seals and strain relief make the Han-Modular® Flexbox a stand-alone solution, which adapts to your requirements.

HARTING upholds the flexibility of the housing series also on the inside of the connector. With the integration of Han-Modular® modules, the possibilities of combinations are nearly endless. Choose from the broadest range of electrical, optical and pneumatic modules on the market to make the Han-Modular® Flexbox your individual interface

Compatible with Han-Modular® portfolio



Over 100 modules available

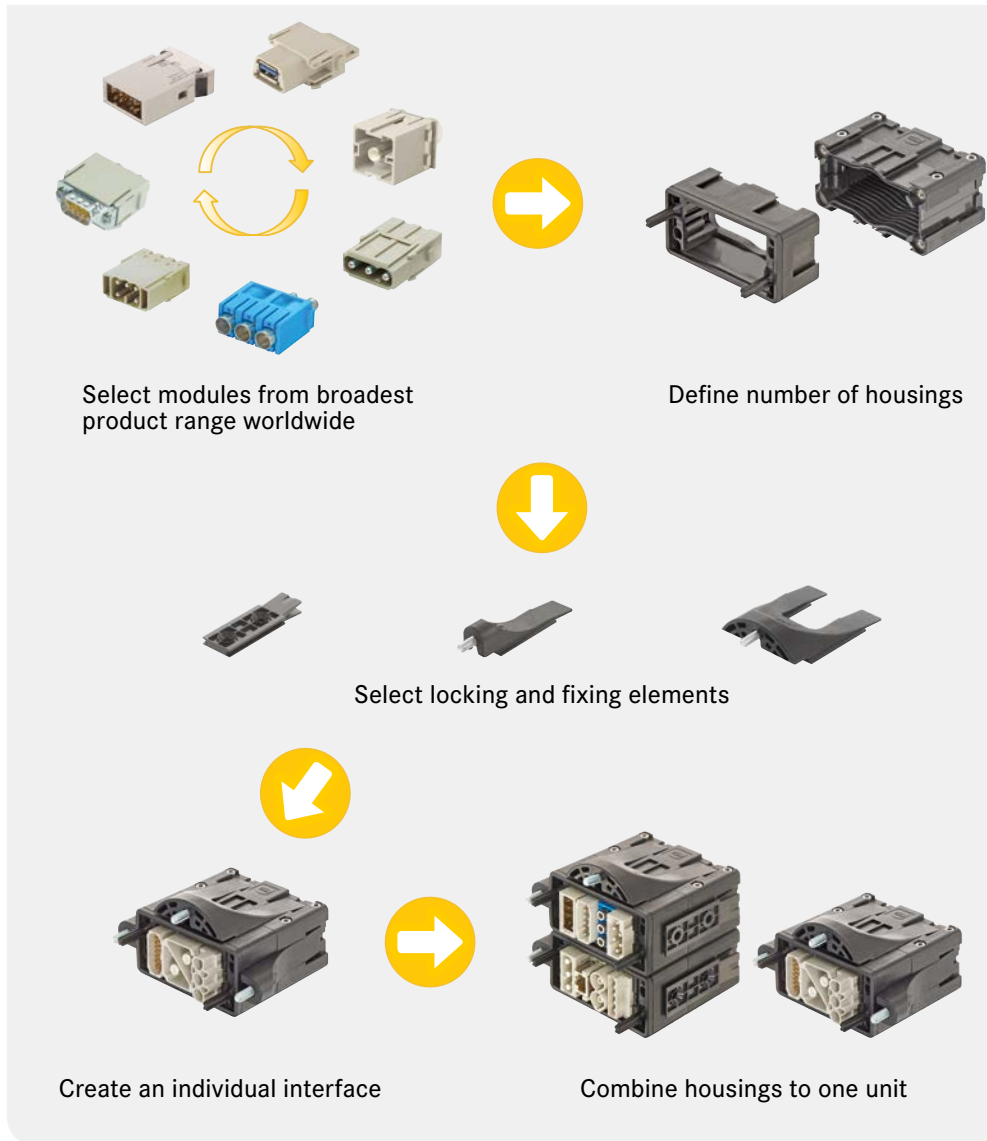


Transmit power, data and signals in one interface



# Easy installation: HARTING Han-Modular® Flexbox

# Technical Characteristics



## Components and Part numbers

	Identification	Figure	Drawings
Housing	09 14 004 8001		
Cover for 4 cable entries	09 14 000 8014		
Cover for 3 cable entries	09 14 000 8013		

# Technical Characteristics

## Components and Part numbers

	Identification	Figure	Drawings
Double locking element	09 14 000 8022		
Single locking element	09 14 000 8021		
Fixing element	09 14 000 8020		
Strain relief - cover with 3 entries	09 14 000 8033		
Strain relief - cover with 4 entries	09 14 000 80034		

# Technical Characteristics

## Components and Part numbers

	Identification	Figure	Drawings
Bellows seal insert small 4 - 10 mm	09 14 000 8100		
Bellows seal insert medium 5 - 16 mm	09 14 000 8200		
Bellows seal insert large 9 - 24 mm	09 14 000 8300		

# Power and Signal Modules – Crimp termination



	Han® 200 A Crimp module	Han® 100 A Crimp module	Han® 100 A Single module	Han® 70 A Crimp module
70 - 200 A				
Number of contacts	1*	2*	1	2
Electrical data	200 A / 1000 V	100 A / 1000 V	100 A / 830 V	70 A / 1000 V
Cross-section	25 ... 70 mm <sup>2</sup>	10 ... 35 mm <sup>2</sup>	10 ... 35 mm <sup>2</sup>	6 ... 25 mm <sup>2</sup>
Termination type	Crimp termination, Han® HC	Crimp termination, Han® HC	Crimp termination, Han® HC	Crimp termination, Han® HC
Male module (M)	09 14 001 3001	09 14 002 3051	09 14 001 3031	09 14 002 3041
Female module (F)	09 14 001 3101	09 14 002 3151	09 14 001 3131	09 14 002 3141
40 A				
Number of contacts	2	3	4	3 + 4
Electrical data	40 A / 1000 V	40 A / 690 V	40 A / 830 V	40 A + 10 A / 830 V
Cross-section	1.5 ... 10 mm <sup>2</sup>	1.5 ... 6 mm <sup>2</sup>	1.5 ... 6 mm <sup>2</sup>	0.14 ... 6 mm <sup>2</sup>
Termination type	Crimp termination, Han® C	Crimp termination, Han® C	Crimp termination, Han® C	Crimp, Han® C + Han D®
Male module (M)	09 14 002 3002	09 14 003 3001	09 14 004 3041	09 14 007 3001
Female module (F)	09 14 002 3102	09 14 003 3101	09 14 004 3141	09 14 007 3101
16 A				
Number of contacts	6	8	20*	6
Electrical data	16 A / 500 V	16 A / 400 V	16 A / 500 V	16 A / 830 V
Cross-section	0.14 ... 4 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>
Termination type	Crimp termination, Han E®	Crimp termination, Han E®	Crimp termination, Han E®	Crimp termination, Han E®
Male module (M)	09 14 006 3001	09 14 008 3001	09 14 020 3001	09 14 006 3041
Female module (F)	09 14 006 3101	09 14 008 3101	09 14 020 3101	09 14 006 3141
≤ 10 A				
Number of contacts	12	17	42*	25
Electrical data	10 A / 250 V	10 A / 150 V	10 A / 150 V	4 A / 50 V
Cross-section	0.14 ... 2.5 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>	0.08 ... 0.52 mm <sup>2</sup>
Termination type	Crimp termination, Han D®	Crimp termination, Han D®	Crimp termination, Han D®	Crimp termination, D-Sub
Male module (M)	09 14 012 3002	09 14 017 3001	09 14 042 3001	09 14 025 3001
Female module (F)	09 14 012 3102	09 14 017 3101	09 14 042 3101	09 14 025 3101
High Voltage				
Number of contacts	2*	2*	2	
Electrical data	40 A / 2900/5000 V	16 A / 2900/5000 V	16 A / 2500 V	
Cross-section	1.5 ... 10 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>	
Termination type	Crimp termination, Han® C	Crimp termination, Han E®	Crimp termination, Han E®	
Male module (M)	09 14 002 3023	09 14 002 3021	09 14 002 3025	
Female module (F)	09 14 002 3123	09 14 002 3121	09 14 002 3125	

\* Double module, requires two places in the frame

# Data Transfer Modules



	Han® RJ45 module	for patch cable	for IDC	for patch cable	for IDC and preLink
Han® RJ45 module					
	- 8 contacts - cat. 6 <sub>A</sub> - 10 Gbit/s				
	Part numbers	Male module (M) 09 14 001 4623 Adapter for patch cable: 09 14 000 9966 Patch cable cat. 6: 09 47 474 71xx	Male module (M) 09 14 001 4623 RJ Industrial IDC: 09 45 400 1560	Female module (F) 09 14 001 4721	Female module (F) 09 14 001 4722 RJ45 female IDC: 09 14 545 1561 RJ45 female preLink: 09 14 008 4720
Han-Quintax® Modules		Han-Quintax®	Han® High Density Quintax	Han D® Coax	Han E® Coax
	Quintax modul				
	Number of contacts	2 x 4*	2 x 8*	2 x Coax*	2 x Coax*
	Male module (M)	09 14 002 3001	09 14 002 3001	09 14 002 3001	09 14 002 3001
	Female module (F)	09 14 002 3101	09 14 002 3101	09 14 002 3101	09 14 002 3101
	Insert (Cable Ø ≤ 9.5 mm)				
	Data rate Electrical data Cross-section Termination type	100 Mbit/s (cat. 5e) 10 A / 50 V 0.14 ... 2.5 mm <sup>2</sup> Crimp termination, Han D®	100 Mbit/s (cat. 5e) 5 A / 50 V 0.09 ... 0.52 mm <sup>2</sup> Crimp termination, D-Sub	≤ 500 Mhz / 75 Ω 10 A / 50 V 0.14 ... 2.5 mm <sup>2</sup> Crimp termination, Han D®	≤ 500 Mhz / 50 Ω 16 A / 50 V 0.14 ... 4 mm <sup>2</sup> Crimp termination, Han E®
Male insert (M)	09 15 004 3013	09 15 008 3013	09 15 001 3013	09 15 001 3023	
Female insert (F)	09 15 004 3113	09 15 008 3113	09 15 001 3113	09 15 001 3123	
PE shielding termination	Optional shielding termination to the hinged frame with the aid of Han-Quintax® metal adapter 09 14 000 9915				
Han® GigaBit		Han® GigaBit module			Han® Shielded Module
	Adapter Module				
	Male module (M)	09 14 001 3011			09 14 001 3011
	Female module (F)	09 14 001 3111			09 14 001 3111
	Insert (Cable Ø ≤ 14 mm)				
	Number of contacts Data rate Electrical data Cross-section Termination type Shielding termination	8 10 Gbit/s (cat. 6 <sub>A</sub> ) 5 A / 50 V 0.09 ... 0.52 mm <sup>2</sup> Crimp termination, D-Sub Crimp flange			20 4 A / 32 V 0.09 ... 0.52 mm <sup>2</sup> Crimp termination, D-Sub Crimp flange
	Male insert (M)	09 14 008 3011			09 14 020 3013
Female insert (F)	09 14 008 3111			09 14 020 3113	
	with PE shielding termination				
Male insert (M)	09 14 008 3012				
Female insert (F)	09 14 008 3112				
Serial Bus Modules		Han D-Sub module	Han® USB module	Han® FireWire module	
	Number of contacts Data rate Electrical data Cross-section Termination type	9 + shielding 12 Mbit/s (Profibus) 5 A / 50 V 0.09 ... 0.52 mm <sup>2</sup> Crimp termination, D-Sub	8 5 Gbit/s (USB 3.0) 1 A / 50 V USB patch cable	6 400 Mbit/s (IEEE 1394a) 1 A / 50 V FireWire patch cable	
	Male module (M)	09 14 009 3001	09 14 001 4601	09 14 001 4611	
Female module (F)	09 14 009 3101	09 14 001 4703	09 14 001 4711		

\* Double module, requires two places in the frame

# Power and Signal Modules – Field assembly



100 - 200 A		Han® 200 A Axial Module		Han® 100 A Axial Module	
	Number of contacts	1*		1*	
	Electrical data	200 A / 1000 V		100 A / 1000 V	
	Termination type	Axial screw termination		Axial screw termination	
	Cross-section	40 ... 70 mm²		16 ... 35 mm²	
	Male module (M)	09 14 001 2662		09 14 002 2651	
	Female module (F)	09 14 001 2762		09 14 002 2751	
40 - 70 A		Han® 70 A Axial module	Han® 70 A Hybrid module	Han® 40 A Axial module	Han® C Axial module
	Number of contacts	2	1 + (4 x Han E®)	2	3
	Electrical data	70 A / 1000 V	70 A / 1000 V	40 A / 1000 V	40 A / 690 V
	Termination type	Axial screw termination	Axial screw termination	Axial screw termination	Axial screw termination
	Cross-section	14 ... 22 mm²	14 ... 22 mm²	6 ... 10 mm²	6 ... 10 mm²
	Male module (M)	09 14 002 2647	09 14 005 2647	09 14 002 2602	09 14 003 2602
	Female module (F)	09 14 002 2742	09 14 005 2742	09 14 002 2702	09 14 003 2702
16 A		Han E® Quick Lock module	Han® EE Quick Lock module	Han® ES module	Han E® screw module
	Number of contacts	6	8	5	5
	Electrical data	16 A / 500 V	16 A / 400 V	16 A / 400 V	16 A / 230/400 V
	Termination type	Quick Lock termination	Quick Lock termination	Cage clamp termination	Screw termination
	Cross-section	0.5 ... 2.5 mm²	0.5 ... 2.5 mm²	0.14 ... 2.5 mm²	0.5 ... 2.5 mm²
	Male module (M)	09 14 006 2633	09 14 008 2633	09 14 005 2616	09 14 005 2601
	Female module (F)	09 14 006 2733	09 14 008 2733	09 14 005 2716	09 14 005 2701
≤ 10 A		Han DD® Quick Lock module			
	Number of contacts	12, silver plated		12, gold plated	
	Electrical data	10 A / 250 V		10 A / 250 V	
	Termination type	Quick Lock termination		Quick Lock termination	
	Cross-section	0.25 ... 1.5 mm²		0.25 ... 1.5 mm²	
Axial screw termination	Hexagonal drivers	with grip	Bit 1/4"	Adapter 3/8"	Hexagonal torque set
	2 mm (40 A)	09 99 000 0313	09 99 000 0369		09 99 000 0834
	2.5 mm (70 A)		09 99 000 0375		09 99 000 0834
	4 mm (100 A)	09 99 000 0363		09 99 000 0370	09 99 000 0833
5 mm (200 A)	09 99 000 0364		09 99 000 0371	09 99 000 0833	

\* Double module, requires two places in the frame

# Modules for different Media



Coaxial Modules		Han® Multi Module (for D-Sub coaxial contacts)		Han® Multi Module (for DIN 41626 coaxial contacts)	
	Number of contacts	4		12*	
	Male module (M)	09 14 004 4501		09 14 012 4501	
	Female module (F)	09 14 004 4513		09 14 012 4512	
	Coaxial contacts (≤ 2 GHz)				
	Impedance	75 Ω		50 Ω	
	Coaxial cable	RG179, RG187		RG174, RG188, RG316	
Termination type	Crimp /crimp termination		Solder /crimp termination		
Male contact	09 69 282 5230		09 14 000 6221		
Female contact	09 69 182 5230		09 14 000 6111		
Optical Modules		Han® LC module	Han® SC module	Han® Multi module	Han® Multi module
	Number of contacts	6	4	4	12*
	Male module (M)	09 14 006 4701	09 14 004 4701	09 14 004 4501	09 14 012 4501
	Female module (F)	09 14 006 4711	09 14 004 4711	09 14 004 4512	09 14 012 4512
	Contacts				
	1 mm POF		20 10 001 5211	Male: 20 10 001 4211 Female: 20 10 001 4221	Male: 20 10 001 4211 Female: 20 10 001 4221
	1 mm POF Fast assembly termination		20 10 001 5217		
SI-Fibre 200 / 230 µm Multi-Mode		20 10 230 5211	Male: 20 10 230 4211 Female: 20 10 230 4221	Male: 20 10 230 4211 Female: 20 10 230 4221	
GI-Fibre 50-62,5 / 125 µm Multi-Mode	20 10 125 8211	20 10 125 5211	Male: 20 10 125 4212 Female: 20 10 125 4222	Male: 20 10 125 4212 Female: 20 10 125 4222	
GI-Fibre 9 / 125 µm Single-Mode	20 10 125 8220	20 10 125 5220			
Further Modules		Han-Eco® Monoblock	Han-Eco® PE module	Han® Dummy module	Han® Pneumatic module
	Field of application	for Han-Eco® hoods/housings only	for Han-Eco® hoods/housings only	to fill-up empty module places	metal
	Number of contacts	10, 14, 20, 28 + PE	1 x PE		3
	Electrical data	16 A / 500 V			
	Cross-section	0.5 ... 2.5 mm²	1.5 ... 16 mm²		3, 4, 6 mm
Termination type	Screw termination	Screw termination			
Male module (M)	19 41 0xx 2601	19 41 001 2600	09 14 000 9950	09 14 003 3501	
Female module (F)	19 41 0xx 2701	19 41 001 2700		09 14 003 3501	
Contacts for pneumatic modules		Pneumatic contacts (max. 10 bar)			Adapter
	For tube outer diameter				
	Tube-Ø	6 mm OD	4 mm OD	3 mm OD	for Han® C contacts
	Male contact	09 14 000 6356	09 14 000 6354	09 14 000 6353	Male: 09 14 000 6391
	Female without shut-off	09 14 000 6456	09 14 000 6454	09 14 000 6453	Female: 09 14 000 6491
	Female with shut-off	09 14 000 6466	09 14 000 6464	09 14 000 6463	
	For tube inner diameter				
	Tube-Ø	6 mm ID	4 mm ID	3 mm ID	
	Male contact	09 14 000 6306	09 14 000 6304	09 14 000 6303	
Female without shut-off	09 14 000 6406	09 14 000 6404	09 14 000 6403		
Female with shut-off	09 14 000 6416	09 14 000 6414	09 14 000 6413		

\* Double module, requires two places in the frame