



Pushing Performance



People | Power | Partnership





HARTING Selection Guide




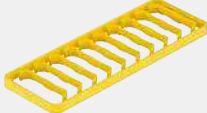
Han[®] 1A Connectors

	2+PE Screw	3+PE Screw	3+PE Shielded
Contacts / wires	2+PE	3+PE	3+PE + shielding
Electrical data	10 A / 230/400 V	10 A / 230/400 V	10 A / 400 V
Termination	Screw	Screw	Crimp
Conductor cross-section	0.75 ... 1.5 mm ²	0.75 ... 1.5 mm ²	0.14 ... 2.5 mm ²
Male with snap-in latch	09 10 002 2601	09 10 003 2601	09 10 003 3001
Female with snap-in latch	09 10 002 2701	09 10 003 2701	09 10 003 3101
Male for locking lever	09 10 002 2606	09 10 003 2606	09 10 003 3006
Female for locking lever	09 10 002 2706	09 10 003 2706	09 10 003 3106
Single wire seal	09 10 004 9900	09 10 004 9900	
Note	Insert incl. contacts	Insert incl. contacts	Han® D contacts to be ordered separately

	3+PE Crimp	5+PE Crimp	12 Crimp
Contacts / wires	3+PE	5+PE	12
Electrical data	16 A / 400 V	10 A / 400 V	6.5 A / 50 V
Termination	Crimp	Crimp	Crimp
Conductor cross-section	0.14 ... 4 mm ²	0.14 ... 2.5 mm ²	0.09 ... 0.52 mm ²
Male with snap-in latch	09 10 003 3201	09 10 005 3001	09 10 012 3001
Female with snap-in latch	09 10 003 3301	09 10 005 3101	09 10 012 3101
Male for locking lever	09 10 003 3206	09 10 005 3006	09 10 012 3006
Female for locking lever	09 10 003 3306	09 10 005 3106	09 10 012 3106
Single wire seal	09 10 004 9901	09 10 006 9900	09 10 012 9900
Note	Han E® contacts to be ordered separately	Han D® contacts to be ordered separately	Han® D-Sub contacts to be ordered separately. For removal use tool part no. 09 99 000 0346.

	Cat. 5	Cat. 6A	Cat. 5	Cat. 6A
	With snap-in latch	With snap-in latch	For locking lever	For locking lever
Contacts / wires	4	8	4	8
Electrical data	4 A / 48 VAC/60 VDC	0.5 A / 48 V	4 A / 48 VAC/60 VDC	0.5 A / 48 V
Data transmission rate	100 Mbit/s	10 Gbit/s	100 Mbit/s	10 Gbit/s
Termination	Crimp	Crimp	Crimp	Crimp
Conductor cross-section	0.13 ... 0.82 mm ²	0.08 ... 0.25 mm ²	0.13 ... 0.82 mm ²	0.08 ... 0.25 mm ²
Male insert	09 10 004 3001	09 10 008 3001	09 10 004 3006	09 10 008 3006
Female insert	09 10 004 3101	09 10 008 3101	09 10 004 3106	09 10 008 3106
Advice	D-Sub contacts to be ordered separately	Har-speed M12 contacts to be ordered separately	D-Sub contacts to be ordered separately	Har-speed M12 contacts to be ordered separately

Housing components		Bulkhead mounted housing, straight	Bulkhead mounted housing, angled	Cable adapter	Strain relief
					
	Cable diameter			5.7 - 10 mm	
	IP protection class	IP65	IP65	IP65	IP20
Part number	09 10 000 0300	09 10 000 0800	09 10 000 0400	09 10 000 5300	

Accessories		Mounting frame	Dummy plugs	Locking lever	Colour coding elements
					
			For single wire seal	Stainless steel	
	Part number	09 10 000 9908	09 10 000 9909	09 10 000 5200	09 10 000 9901 (red)
					09 10 000 9902 (blue)
					09 10 000 9903 (green)
				09 10 000 9904 (yellow)	
				09 10 000 9905 (violet)	

Technical characteristics

Material characteristics

Material (insert, hood, housing)	Polyamide, TPE
Material seal	NBR
Material single wire seal	Silicone
	Halogen free
	High chemical resistance
Flammability UL94	V-0
Fire protection on railway vehicles (EN 45545-2)	R22: HL1, HL2, HL3 R23: HL1, HL2, HL3 R24: HL1, HL2, HL3
Limiting temperatures	-30 ... +90 °C

Mechanical characteristics

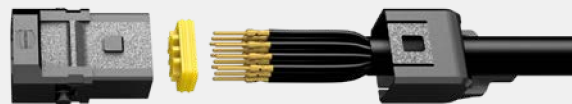
Mating cycles	
With snap-in latch	≥ 100
With metal locking lever	≥ 100
Shock and vibration (EN 61373)	Cat. 1 _B
IP protection	IP20 - IP65

Inserts

Signal	Up to 12 pole
Power	Up to 16 A
Data	Cat. 5; Cat. 6 _A



Locking mechanism with snap-in latch or robust metal locking lever



IP65 protection by single wire seal

Crimp Contacts and Crimping Tools



6.5 A - D-Sub/0,5A/4A-M12	Cross-section / wire gauge		<i>Har-speed</i> M12 male (gold plated)	<i>Har-speed</i> M12 female (gold plated)	D-Sub male (gold plated)	D-Sub female (gold plated)		
	(mm ²)	(AWG)						
	0.13 - 0.25	26 - 23	21 01 100 9019	21 01 100 9021				
	0.09 - 0.25	28 - 24	21 01 100 9014	21 01 100 9023	09 67 000 7576	09 67 000 7476		
	0.13 - 0.33	26 - 22			09 67 000 5576	09 67 000 5476		
0.25 - 0.52	24 - 20			09 67 000 8576	09 67 000 8476			
0.09 - 0.82	28 - 18			09 67 000 3576	09 67 000 3476			
10 A - Han D®	Cross-section / wire gauge		male (silver plated)	female (silver plated)	male (gold plated)	female (gold plated)		
	(mm ²)	(AWG)						
	0.14 - 0.37	26 - 22	09 15 000 6104	09 15 000 6204	09 15 000 6124	09 15 000 6224		
	0.5	20	09 15 000 6103	09 15 000 6203	09 15 000 6123	09 15 000 6223		
	0.75	18	09 15 000 6105	09 15 000 6205	09 15 000 6125	09 15 000 6225		
	1	18	09 15 000 6102	09 15 000 6202	09 15 000 6122	09 15 000 6222		
	1.5	16	09 15 000 6101	09 15 000 6201	09 15 000 6121	09 15 000 6221		
2.5	14	09 15 000 6106	09 15 000 6206	09 15 000 6126	09 15 000 6226			
16 A - Han E®	Cross-section / wire gauge		male (silver plated)	female (silver plated)	male (gold plated)	female (gold plated)		
	(mm ²)	(AWG)						
	0.14 - 0.37	26 - 22	09 33 000 6127	09 33 000 6227	09 33 000 6117	09 33 000 6217		
	0.5	20	09 33 000 6121	09 33 000 6220	09 33 000 6122	09 33 000 6222		
	0.75	18	09 33 000 6114	09 33 000 6214	09 33 000 6115	09 33 000 6215		
	1	18	09 33 000 6105	09 33 000 6205	09 33 000 6118	09 33 000 6218		
	1.5	16	09 33 000 6104	09 33 000 6204	09 33 000 6116	09 33 000 6216		
	2.5	14	09 33 000 6102	09 33 000 6202	09 33 000 6123	09 33 000 6223		
3	12	09 33 000 6106	09 33 000 6206					
4	12	09 33 000 6107	09 33 000 6207	09 33 000 6119	09 33 000 6221			
Crimping tools	Crimping tools acc. to IEC 60352-2		09 99 000 0501	09 99 000 0525	09 99 000 0635	09 99 000 0531		
	Contacts / cross-section [mm ²]	D-Sub / 0.09 ... 0.52	Positioner for M12 male	Positioner for M12 female	Positioner for D-Sub male and female			
Crimping tools	Crimping tools acc. to IEC 60352-2		09 99 000 0021	09 99 000 0110	09 99 000 0888	09 99 000 0012	09 99 000 0847	09 99 000 0346
	Contacts / cross-section [mm ²]	Han D® / 0.14 ... 1.5 Han E® / 0.5 ... 2.5	Han D® / 0.14 ... 1.5 Han E® / 0.5 ... 4.0 Han® C / 1.5 ... 4.0	Han D® / 0.14 ... 1.5 Han E® / 0.14 ... 4.0 Han® C / 1.5 ... 4.0		Han D® Removal Tool	Han E® / Han D® Assembly Tool	D-Sub Removal Tool



- Door systems and ramps
- Illumination
- Headlights
- Speakers
- Indicating lights
- Warning lights
- Screens
- Door opener
- Push buttons
- Buzzers
- Windscreen wiper systems



- Battery storage systems
- Solar inverters
- Power plant control systems and cabinets
- Power generator sets
- Sensors



- Tower lighting
- Emergency stops
- Sensors
- Indicating sounds
- Ventilators

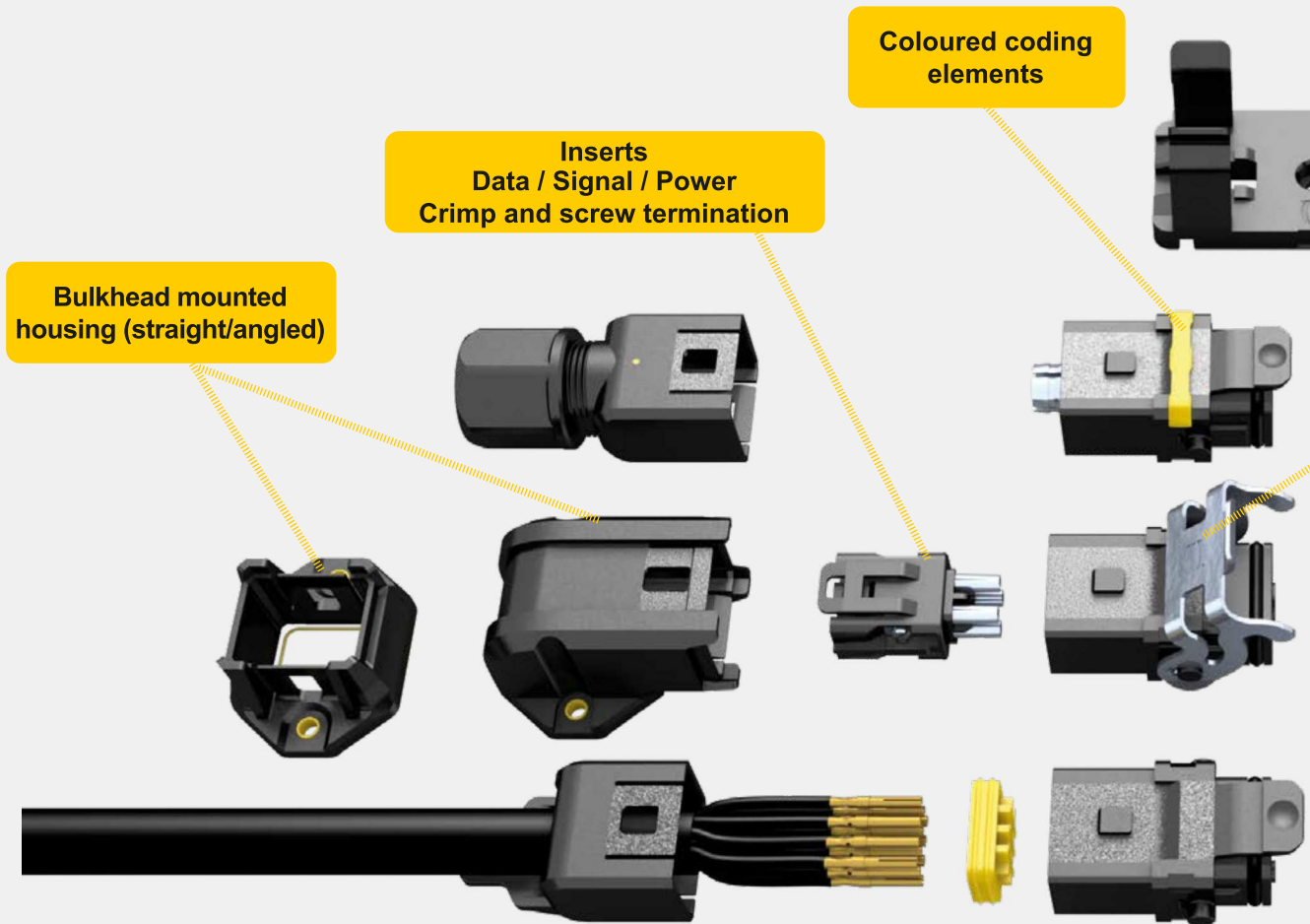


- Heater
- Fans
- Control terminals
- Industrial lighting
- Small drives
- Vibratory conveyors
- Connections inside cabinets



Your configuration:

The right connectivity solution for every application!



Light weight

Thanks to the used material the Han[®] 1A has a weight advantage in comparison to connectors that are e.g. made of metal.



Shock and vibration resistant

The Han[®] 1A product series provides a high reliable connection even under shock and vibration conditions.



Versatile concept

Build your own connectivity solution by using the modularity advantage of the Han[®] 1A with inserts covering power, signal and data transmission. Together with all accessory parts the Han[®] 1A is a very flexible system usable for a broad range of applications.



Time saving

Due to the easy mate and click design of all single components the assembly of the connector is done within seconds – and there are no tools needed.



Space saving

The Han[®] 1A components are designed to fulfil the trend of miniaturisation – while being still a robust Han[®] connector also for harsh environments.

Description of the Han® 1A System



Mounting frame

Single locking lever

Cable adapter

Snap-in latch

Single wire seal

Strain relief



Chemical resistance

Although the Han® 1A is made of plastic, the connector is resistant to chemicals and other aggressive influences.



Cost saving

Limited storage costs due to a versatile system – almost unlimited combinations possible.



Data transmission up to Cat. 6_A

The modularity of the new connector offers a complete system which also includes the possibility of highspeed data transmission.



IP protected where needed

By usage of hood and housing elements or single wire seals IP65 protection degree can be realised in an easy way.



Pushing Performance

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