



Pushing Performance

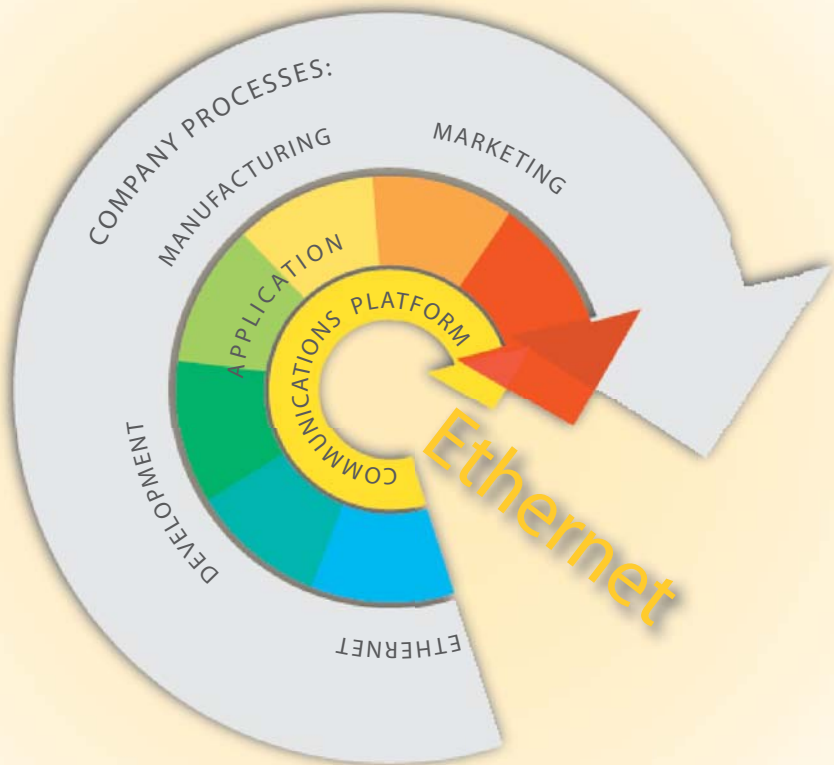
HARTING Automation IT - Selection Guide



People | Power | Partnership

Automation IT offers extraordinary efficiency gains within the context of companies' overall processes. Automation IT is based on a comprehensive, integrated installation concept comprising Ethernet cabling and Ethernet network components. The HARTING Technology Group offers the synthesis of both sides in the form of a single, seamless communications platform.

Automation IT represents a clear innovation in industrial communication. Driven by a single communications platform for all applications in an overall company process, previous ideas of confined communication worlds have been superseded.



The Automation IT communications platform

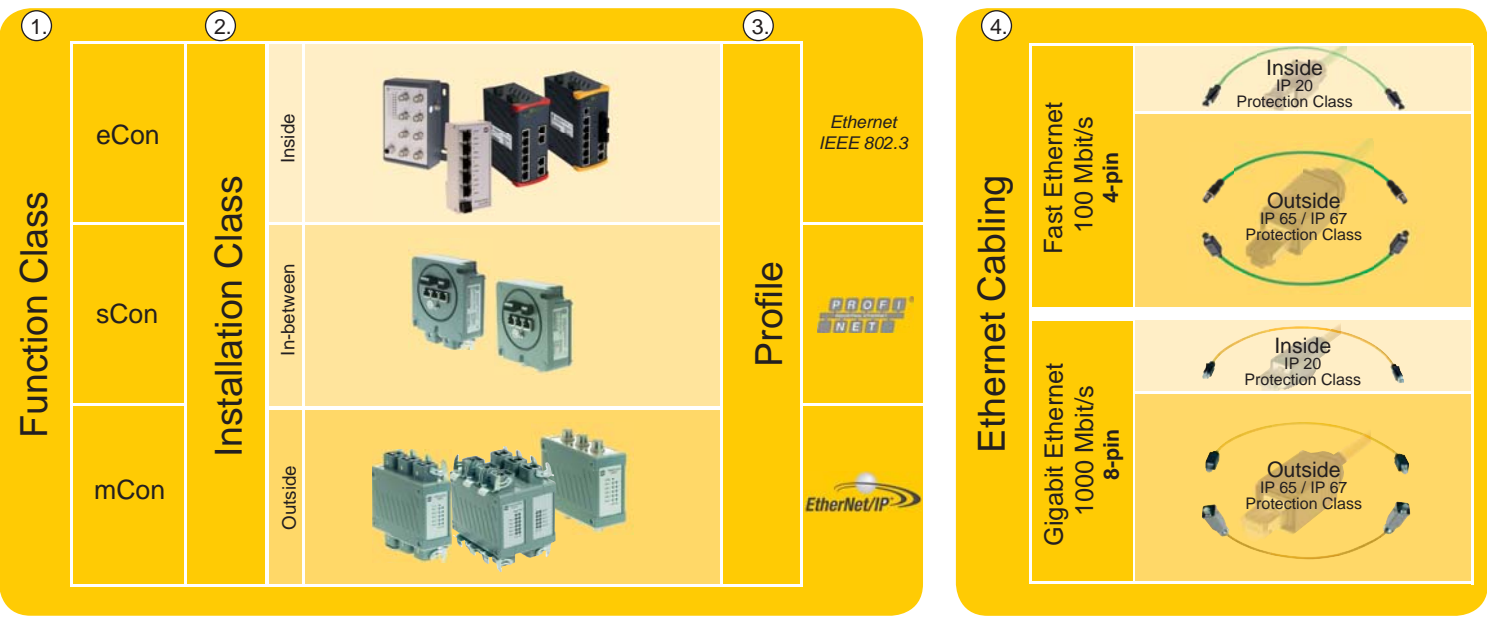
Ethernet constitutes the connecting link between strategic necessity and the actual network, as today's Ethernet can be used for all applications in the IT and the automation environment. Profiles were created and tailored to the automation environment in order to take the Ethernet directly to intelligent sensors and actuators. Ethernet is undergoing constant further development, and consequently offers the required performance for today's and tomorrow's applications, while guaranteeing the highest levels of investment protection at the same time.

The ability to meet end customer needs in an optimal manner is decisive for companies' long-term success: from the placement of orders, throughout manufacturing and delivery and all the way on to after-sales and support. Quality, costs and, above all, speed are the essential determining success factors that ensure a company's growth.

According to the Automation IT concept, a network is defined that forms a platform for all of an industrial company's applications. In this way, the entire process of development, manufacturing and marketing can be formed more efficiently. This calls for a high-performance network.

The HARTING Technology Group connects applications in demanding industrial environments. In order to facilitate the selection of the right components, a special tool was developed: [the „Selection Guide“](#)

The Ethernet network components and the cabling merge into a single entity in machines and systems. The network is adapted to the applications without losing its platform character for communication. This translates as the use of IP67 components or the support of special topologies, such as line or ring topologies, for example.






1. The Functional Class of the active network components is derived from their application. Whatever your need, with the eCon, sCon and mCon, HARTING covers the complete spectrum of industrial applications.

Function Classes	eCon Basic Functions	<ul style="list-style-type: none">EMC, temperature range and mechanical stability for the toughest demandsEthernet Switch according to IEEE 802.3Ethernet (10 Mbit/s) and Fast Ethernet (100 Mbit/s), Gigabit Ethernet (1000 Mbit/s)Store and Forward Switching ModeAuto-negotiation / Auto-crossing / Auto-polarityUp to 10 Ports (10 TX, 8 TX and 2 FX, 6 TX and 2 FX)
	sCon Configurable Functions	<ul style="list-style-type: none">Individually configurable via USB portParallel-redundancy, Ring-redundancyPower-off configuration+ Basic functions
	mCon Management Functions	<ul style="list-style-type: none">Management Services (IGMP Snooping, QoS, VLAN, RSTP, 802.1...)Web ManagementSNMP Management+ Basic functions

Network components can operate as simple star-couplers as in the eCon range, or take over the more complex tasks of active segment administration embodied by the mCon range.

2. In the second step, the Installation Class appropriate to the Installation Concept is selected. If, for example, your network components are located in a switch cabinet, then the *Inside* installation class is the right one for you. All HARTING network components are true industrial products, with such well thought-out default properties that they master the toughest environments.

Inside	 2000 3000 4000 9000	The creation of a star-topology network within a cabinet, whose clients are also in the same cabinet.
In-between	 6000	Integration of cabinets into an Ethernet network, as well as arrangement in a star-topology within the cabinet. Decentralised cabinets can be easily linked together into a line-topology.
Outside	 7000	On-site creation of a star-topology network, most of whose devices are designed to a high protection class. The low number of ports also allow the implementation of simple line-topologies.

3. With the Profile you select whether special automation-specific functions, such as those required by PROFINET, are integrated into the network components. HARTING products can be put into Standard Ethernet, PROFINET and EtherNet/IP environments.

Structured cabling follows from the particular application, since the determination of network components and other active devices decides the constraints on the cabling - for example, the selection of connectors.

4. The network cabling results from the simple connection of network clients. There are complete cable sets available as well as cables and connectors that can be made up on site.

Products are also available for transitional areas like cabinet walls or between two different installation lines.

With the help of the selection guide, you can follow an easy path to a seamless and secure network solution.



Ethernet Components

Function Class	Installation Class	Switches	Application
HARTING eCon	unmanaged		
	Plug & Play		
	Store and Forward Switching Mode		
	Non-Blocking		
HARTING sCon	configurable		
	via USB-interface		
	configurable through a graphic user interface		
HARTING mCon	managed		
	SNMP V1 and V3		
	MIB II		
	RSTP		
HARTING pCon	Industrial Power Supply 24 V		



Ethernet Cabling

Installation Class	Connectors	System Cable	Outlets and Panel Feed-Through	Cables	Application
Fast Ethernet 100 Mbit/s	Inside (IP 20 Protection Class)				
	Outside (IP 65 / IP 67 Protection Class)				
Gigabit Ethernet 1000 Mbit/s	Inside (IP 20 Protection Class)				
	Outside (IP 65 / IP 67 Protection Class)				

Selection Guide Order Information

		Switches	Terminations (ports)	Part Number			Network Cabling	Part Number	
HARTING eCon	①	eCon 2030 -A	3 RJ45	20 76 103 3000	Fast Ethernet 100 Mbit/s 4-polig	⑤7	HARTING RJ Industrial® Connector RJ45	09 45 151 1100	
	②	eCon 2040 -A	4 RJ45	20 76 104 3000		⑤8	HARTING RJ Industrial® System Cable RJ45, assemb.	09 45 751 11xx*	
	③	eCon 2050 -A	5 RJ45	20 76 105 3000		⑤9	HARTING RJ Industrial® System Cable RJ45, overm.	09 45 771 11xx*	
	④	eCon 2050 -AA	5 RJ45 Gigabit	20 76 105 3001**		⑥0	HARTING Cabinet Outlet RJ45	20 76 102 8000	
	⑤	eCon 3080 -A2	8 RJ45	20 76 108 3002		⑥1	HARTING PushPull Connector RJ45	09 45 145 1100	
	⑥	eCon 3080 -A	8 RJ45	20 76 108 3000		⑥2	HARTING PushPull System Cable RJ45, assembled	09 45 745 11xx*	
		- eCon 3080 -A4	8 RJ45	20 76 108 3004		⑥3	HARTING PushPull System Cable RJ45, overmoulded	09 47 363 6xxx*	
	⑦	eCon 3080 -A1	8 RJ45	20 76 108 3001		⑥4	HARTING PushPull Panel Feed-through RJ45	09 45 245 1130	
	⑧	eCon 3061 -AD	6 RJ45 + 1 SC	20 76 107 3100		⑥5	HARTING PushPull Outlet RJ45	09 45 845 1500	
	⑨	eCon 3061 -AE	6 RJ45 + 1 ST	20 76 107 3200		⑥6	HAN® PushPull Connector RJ45, plastic	09 35 221 0421	
	⑩	eCon 3062 -AD	6 RJ45 + 2 SC	20 76 108 3100		⑥7	HAN® PushPull Connector RJ45, metal	09 35 221 0401	
		- eCon 3062 -AD2	6 RJ45 + 2 SC	20 76 108 3102		⑥8	HAN® PushPull System Cable RJ45, plastic	04 47 555 50xx*	
		- eCon 3062 -AF	6 RJ45 + 2 SC	20 76 108 3103		⑥9	HAN® PushPull System Cable RJ45, metal	04 47 565 60xx*	
	⑪	eCon 3062 -AE	6 RJ45 + 2 ST	20 76 108 3200		⑦0	HARAX® M12 Connector D-Coding	21 03 281 1405	
	⑫	eCon 3082 -AD	8 RJ45 + 2 SC	20 76 110 3100		⑦1	Han® M12 System Cable D-Coding	21 03 485 14xx*	
	⑬	eCon 3082 -AE	8 RJ45 + 2 ST	20 76 110 3200		⑦2	Han® M12 Panel Feed-through D-Coding, straight	21 03 381 2400	
	⑭	eCon 3011	1 RJ45 + 1 SC	20 76 102 3100**		⑦3	Han® M12 Panel Feed-through D-Coding, angled	21 03 381 4400	
	⑮	eCon 4080 -B1	8 M12 D-Coding	20 77 208 3001		⑦4	Han® 3 A Connector RJ45, plastic	09 45 125 1100	
	⑯	eCon 9080 -B	7 + 1 M12 D-Coding	20 76 208 7000		⑦5	Han® 3 A Connector RJ45, metal	09 45 115 1100	
	⑰	eCon 9070 -B	7 M12 D-Coding	20 76 207 7000		⑦6	Han® 3 A System Cable RJ45	09 45 715 11xx*	
	⑱	eCon 9100 -AA	8 RJ45 + 2 RJ45 Gigabit	20 76 110 7000		⑦7	Han® 3 A Panel Feed-through RJ45	09 45 215 1100	
⑲	eCon 6050 -A	3 RJ45 + 2 Han® 3 A RJ45	20 73 305 3921	⑦8	Han® 3 A Metall Outlet RJ45, Cat. 5	09 45 815 1100			
⑳	eCon 6050 -BA	3 RJ45 + 2 M12 D-Coding	20 73 305 3941	⑦9	Han® 3 A Metall Outlet RJ45, Cat. 6	20 79 302 0922			
㉑	eCon 6080 -HA	6 RJ45 + 2 RJI Hybrid	20 73 308 3972	⑧0	Han® 3 A Hybrid Connector RJ45, plastic	09 45 125 1300			
㉒	eCon 7050 -A	5 Han® 3 A RJ45	20 70 305 3921	⑧1	Han® 3 A Hybrid Connector RJ45, metal	10 12 005 2001			
㉓	eCon 7050 -B	5 M12 D-Coding	20 70 305 3941	⑧2	Han® 3 A Hybrid System Cable RJ45, plastic	09 45 725 13xx*			
	- eCon 7050 -B1	5 M12 D-Coding	20 70 305 3943**	⑧3	Han® 3 A Hybrid System Cable RJ45, metal	auf Anfrage			
㉔	eCon 7100 -A	10 Han® 3 A RJ45	20 70 310 3921	⑧4	Han® 3 A Hybrid Panel Feed-through RJ45, plastic	09 45 225 1300			
㉕	eCon 7100 -B	10 M12 D-Coding	20 70 310 3941	⑧5	Han® 3 A Hybrid Panel Feed-through RJ45, metal	10 12 005 1002			
㉖	eCon 7100 -AA	8 RJ45 + 2 RJ45 Gigabit	20 70 310 3924	⑧6	Industrial Cat. 5 Standard Cable	09 45 600 01x0*			
HARTING sCon	㉗	sCon 3100 -A	10 RJ45	20 76 110 1000	⑧7	Industrial Cat. 5 Stranded Cable	09 45 600 01x2*		
	㉘	sCon 3100 -AA	10 RJ45	20 76 110 1001	⑧8	Industrial Cat. 5 Outdoor Cable	09 45 600 01x5*		
	㉙	sCon 3061 -AD	6 RJ45 + 1 SC	20 76 107 1100	⑧9	Industrial Cat. 5 Trailing Cable	09 45 600 01x1*		
	㉚	sCon 3061 -AF	6 RJ45 + 1 SC	20 76 107 1102	⑨0	Industrial Cat. 5 Hybrid Cable	09 45 600 03x0*		
	㉛	sCon 3082 -AD	8 RJ45 + 2 SC	20 76 110 1100	⑨1	HARTING RJ Industrial® Connector RJ45	09 45 151 15x0*		
	㉜	sCon 3082 -AF	8 RJ45 + 2 SC	20 76 110 1102	⑨2	HARTING RJ Industrial® Stranded System Cable RJ45	09 45 751 15xx*		
	㉝	sCon 3063 -AD	6 RJ45 + 3 SC	20 76 109 1100	⑨3	Industrial Ethernet Patch-Cable RJ45	09 45 971 11xx*		
㉞	sCon 3061 -AE	6 RJ45 + 1 ST	20 76 107 1200	⑨4	HARTING Cabinet Outlet RJ45	20 76 102 8000			
㉟	sCon 3082 -AE	8 RJ45 + 2 ST	20 76 110 1200	Gigabit Ethernet 1000 Mbit/s 8-polig	⑨5	HARTING PushPull Connector RJ45	09 45 145 15x0*		
㊱	sCon 3063 -AE	6 RJ45 + 3 ST	20 76 109 1200		⑨6	HARTING PushPull Stranded System Cable RJ45	09 45 745 15xx*		
㊲	mCon 3100 -A	10 RJ45	20 76 110 4000		⑨7	HARTING PushPull Panel Feed-through RJ45	09 45 245 1130		
㊳	mCon 3061 -AD	6 RJ45 + 1 SC	20 76 107 4100		⑨8	HARTING PushPull Outlet RJ45	09 45 845 1500		
㊴	mCon 3082 -AD	8 RJ45 + 2 SC	20 76 110 4100		⑨9	Han® 3 A Connector RJ45, plastic	09 45 125 15x0*		
㊵	mCon 3063 -AD	6 RJ45 + 3 SC	20 76 109 4100		⑩0	Han® 3 A Connector RJ45, metal	09 45 115 15x0*		
㊶	mCon 3061 -AE	6 RJ45 + 1 ST	20 76 107 4200		⑩1	Han® 3 A Stranded System Cable RJ45	09 45 715 15xx*		
㊷	mCon 3082 -AE	8 RJ45 + 2 ST	20 76 110 4200		⑩2	Han® 3 A Panel Feed-through RJ45	09 45 215 1100		
㊸	mCon 3063 -AE	6 RJ45 + 3 ST	20 76 109 4200		⑩3	Han® 3 A Metall Outlet RJ45, Cat. 5	09 45 815 1100		
㊹	mCon 4080 -B1	8 M12 D-Coding	20 77 208 4001		⑩4	Han® 3 A Metall Outlet RJ45, Cat. 6	20 79 302 0922		
㊺	mCon 9080 -B	7 + 1 M12 D-Coding	20 76 208 7001		⑩5	Han-Max® Connector RJ45	09 15 300 0402		
㊻	mCon 9070 -B	7 M12 D-Coding	20 76 207 7001	⑩6	Han-Max® Stranded System Cable RJ45	auf Anfrage			
㊼	mCon 9100 -AA	8 RJ45 + 2 RJ45 Gigabit	20 76 110 7001	⑩7	Han-Max® Panel Feed-through RJ45	09 15 300 0302			
HARTING mCon	㊽	mCon 6050 -A	3 RJ45 + 2 Han® 3 A RJ45	20 73 305 4921	⑩8	Industrial Cat. 5 Stranded Cable	09 45 600 04x0*		
	㊾	mCon 6050 -BA	3 RJ45 + 2 M12 D-Coding	20 73 305 4941	⑩9	Industrial Cat. 5 Outdoor Cable	09 45 600 02x0*		
	㊿	mCon 7050 -A	5 Han® 3 A RJ45	20 70 305 4921	⑪0	Industrial Cat. 6 Stranded Cable	09 45 600 06x0*		
		- mCon 7050 -A1	5 Han® 3 A RJ45	20 70 305 4922**	⑪1	Industrial Cat. 6 _A Installation Cable	09 45 600 0650*		
	①	mCon 7050 -B	5 M12 D-Coding	20 70 305 4941	Further product information is available in our catalogue				
	②	- mCon 7050 -B1	5 M12 D-Coding	20 70 305 4942**					
	③	mCon 7100 -A1	10 Han® 3 A RJ45	20 70 310 4922					
	④	- mCon 7100 -AA	8 RJ45 + 2 RJ45 Gigabit	20 70 310 4924					
	⑤	mCon 7100 -B1	10 M12 D-Coding	20 70 310 4942					
	⑥	mCon 7100 -A2	10 Han® 3 A RJ45	20 70 310 4923					
⑦	mCon 7100 -B2	10 M12 D-Coding	20 70 310 4943	*Please refer to the catalogue for the order numbers of the relevant cables and system cables.					
⑧	pCon 2060 -24	24V / 2,5A (60W)	20 80 000 3121						
⑨	pCon 2060 -48	48V / 1,25A (60W)	20 80 000 3122						
HARTING pCon	⑩	pCon 7095 -24A	2 Han® 4 A	20 80 300 3011	**Available by 2. Quarter 2008				
	⑪	pCon 7095 -24B	2 M12 A-Coding	20 80 300 3012					



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