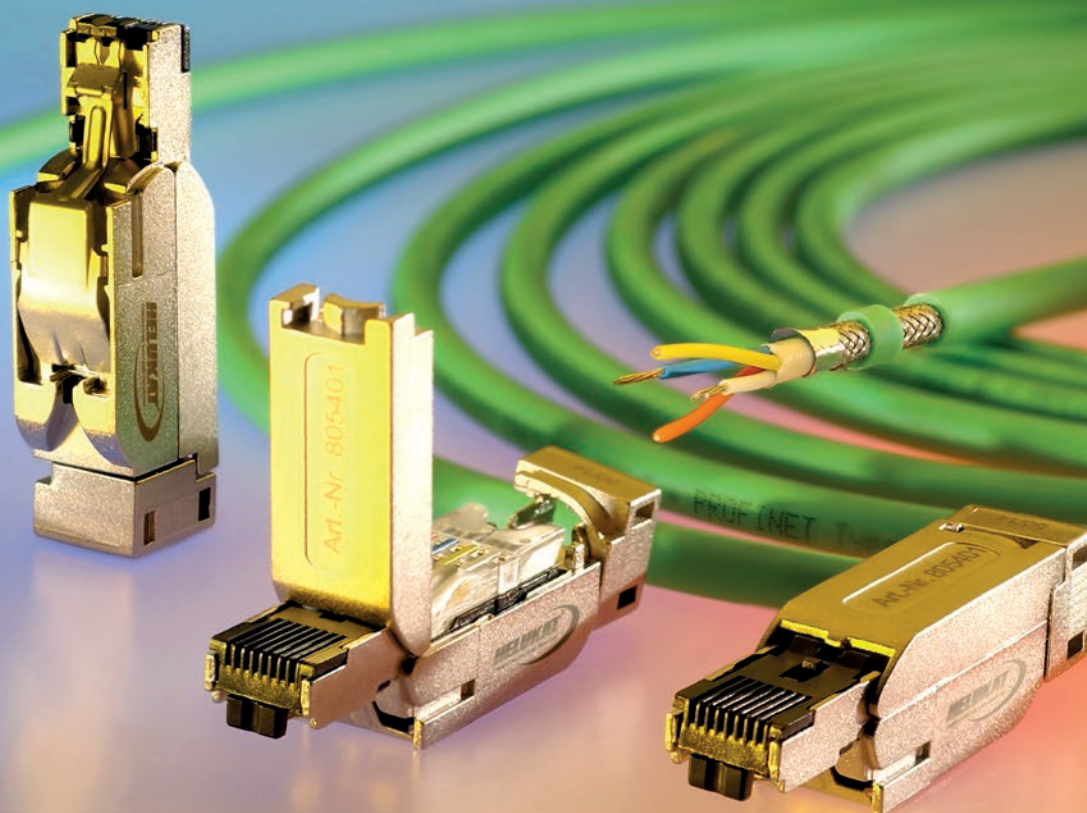




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**Data, Network & Bus Technology**

# Industrial Ethernet

**Cables · Connectors · Tools · Pre-assembled Parts**

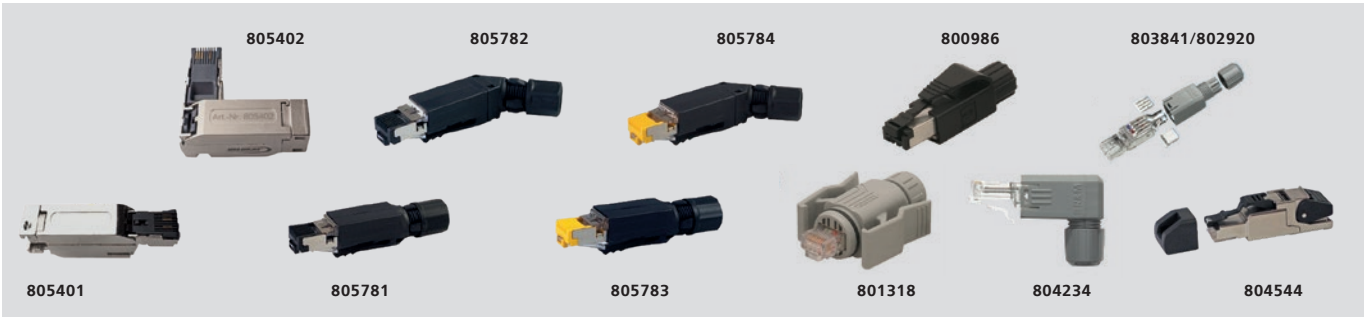


INDUSTRIAL ETHERNET

Type	Application	Category	Item no:	UL	Core Ø	Sheath Ø
Profinet A 2x2xAWG22/1 PVC	Standard - fixed	Cat 5	800653	CMG PLTC AWM 600V	1.5 mm	6.5 mm
Profinet A 2x2xAWG22/1 FRNC	Halogen-free - fixed		805653	CMG PLTC AWM 600V		
Profinet A 2x2xAWG22/1 PUR	Robust - fixed		801194	N/A		
Profinet A 2x2xAWG22/1 PUR	Radiation-resistant - fixed		801195	N/A		
Profinet A 2x2xAWG22/1 PVC/PE	Armoured - outdoor - fixed		801650	N/A		9.3 mm
Profinet B 2x2xAWG22/7 PVC	Standard - flexible		800654	CMG PLTC AWM 600V		6.5 mm
Profinet B 2x2xAWG22/7 FRNC	Halogen-free - flexible		805654	CMG PLTC AWM 600V		
Profinet B 2x2xAWG22/7 FRNC	Shipbuilding - flexible		802185	CMG PLTC		
Profinet B 2x2xAWG22/7 PVC	Festoon – flexible		803295	CMG PLTC AWM 600V		
Profinet B 2x2xAWG22/7 X-FRNC	Wind power – flexible		802293	AWM 300V		10.3 mm
Profinet B Hybrid 2x2xAWG22/7+4x1.5 FRNC	Halogen-free - flexible		801651	AWM 150V		
Profinet C 2x2xAWG22/7 PVC	Drag chain		802914	CMG PLTC AWM 600V		
Profinet C 2x2xAWG22/7 PUR	Drag chain		800655	CMX		
Profinet C 2x2xAWG22/19 PUR	Robotics		802186	AWM 150V		
Profinet C 2x2xAWG22/19 PUR	Robotics		806740	AWM 1000V		
Industrial Ethernet 2x2xAWG24/1 FRNC	Halogen-free - fixed	Cat 5	805699	N/A	1.0 mm	5.6 mm
Industrial Ethernet 2x2xAWG24/1 PUR	Robust - fixed		805700	N/A	1.0 mm	5.6 mm
Industrial Ethernet 2x2xAWG26/7 FRNC	Halogen-free - flexible		805701	N/A	1.0 mm	5.6 mm
Industrial Ethernet 2x2xAWG26/7 PUR	PUR – flexible		805702	AWM 1000V	1.0 mm	5.7 mm
Industrial Ethernet 4x2xAWG26/7 PUR	Robustflex - flexible		800068	N/A	1.0 mm	5.8 mm
Industrial Ethernet 4x1xAWG26/19 PUR	Drag chain Eco		82838	AWM 30V	1.0 mm	4.8 mm
Industrial Ethernet 4x2xAWG26/19 PUR	Drag chain Eco		82839	AWM 30V	1.0 mm	6.6 mm
Industrial Ethernet 4x1xAWG24/19 PUR	Drag chain		800088	N/A	1.25 mm	6.2 mm
Industrial Ethernet 4x2xAWG24/19 PUR	Drag chain		81155	N/A	1.25 mm	9.5 mm
Industrial Ethernet 4x2xAWG26/19 PUR	Robotics		800067	AWM 30V	1.0 mm	7.5 mm
Industrial Ethernet 4x2xAWG24/1 PVC	Standard - fixed	Cat 6	805655	CMG	1.0 mm	8.0 mm
Industrial Ethernet 4x2xAWG24/1 PVC	Standard - fixed		805681	AWM 30V	1.0 mm	8.0 mm
Industrial Ethernet 4x2xAWG24/7 PVC	Drag chain		805658	CMG	1.1 mm	8.0 mm
Industrial Ethernet 4x2xAWG26/7 PUR	Drag chain		803387	CMX	1.0 mm	7.8 mm
Industrial Ethernet 4x2xAWG24/1 PVC	Standard - fixed	Cat 6 <sub>A</sub>	803693	CMG	1.5 mm	9.6 mm
Industrial Ethernet 4x2xAWG24/7 PVC	Drag chain		805704	CM	1.3 mm	8.9 mm
Industrial Ethernet 4x2xAWG24/7 PUR	Drag chain		805703	CMX	1.3 mm	8.9 mm
Industrial Ethernet 4x2xAWG26/7 PUR	Drag chain		805548	CMX	1.0 mm	7.8 mm
Industrial Ethernet 4x2xAWG26/7 PUR	Robustflex	Cat 7	802184	AWM 30V	1.0 mm	6.4 mm
Industrial Ethernet 4x2xAWG24/7 FRNC	Shipbuilding - flexible		803382	GL DNV	1.4 mm	9.1 mm
Industrial Ethernet 4x2xAWG24/7 PUR	Drag chain		805614	CMX AWM 600V	1.3 mm	8.7 mm
Industrial Ethernet 4x2xAWG24/7 PUR	Robotics		805828	CMX AWM 600V	1.3 mm	8.7 mm
Industrial Ethernet 4x2xAWG23/1 PUR	Robust - fixed	Cat 7 <sub>A</sub>	805680	N/A	1.4 mm	7.8 mm
Industrial Ethernet 4x2xAWG26/7 PUR	Robustflex - flexible		805684	AWM 30V	1.0 mm	6.2 mm
CC-Link IE 4x2xAWG24/1 PVC	Standard - fixed	Cat 5	81610	N/A	1.0 mm	6.0 mm
CC-Link IE 4x2xAWG22/1 PVC	Standard - fixed	Cat 6 <sub>A</sub>	803693	CMG	1.5 mm	9.6 mm
Industrial Ethernet 4x2xAWG22/1 FRNC	Halogen-free - fixed	Cat 6 <sub>A</sub>	11007777	CM	1,5 mm	8,7 mm
Industrial Ethernet 4x2xAWG22/1 PUR	Robust - fixed	Cat 6 <sub>A</sub>	11007778	CMX	1,5 mm	8,7 mm
Industrial Ethernet 4x2xAWG22/1 PVC	Standard - fixed	Cat 6 <sub>A</sub>	11007776	CMG AWM 600V	1,5 mm	8,7 mm
CC-Link IE 4x2xAWG23/1 FRNC	Halogen-free - fixed	CAT 7e	80810	N/A	1.3 mm	7.5 mm
CC-Link IE 4x2xAWG23/1 PUR	Robust - fixed		801197	N/A	1.3 mm	7.8 mm
Industrial Ethernet 4x2xAWG23/1 FRNC	Halogen-free - fixed	Cat 7e	11007775	AWM 600V	1.3 mm	7.8 mm
CC-Link IE 4x2xAWG24/7 PUR	Drag chain	Cat 7	805614	CMX	1.3 mm	8.7 mm

# COPPER CONNECTOR

Category	Connector	Pins	Item no:	Core Ø	Cable Ø	AWG Sld.	AWG Strd.	UL	Class	Standard
Cat 5	straight	4	800986	max. 1.6 mm	6.1-6.9 mm	22-23	22-24/7	i. p.	IP20	PROFInet
	straight	4	803841		4.5-8.0 mm	22-26	22-26/7	i. p.		PROFInet
	straight	8	802920		4.5-8.0 mm	22-26/7		yes		TIA 568 A/B
	angled 90°	8	804234		4.5-8.0 mm	23-26	26-23/7	yes		TIA 568 A/B
	straight - metal	4	805401		6.3-6.7 mm	22-24		i. p.		PROFInet
	angled 90° - metal	4	805402		6.3-6.7 mm			i. p.		PROFInet
	straight	4	805781		4.5-9.0 mm	22-24	22-27	i. p.		PROFInet
	angled 45°	4	805782		4.5-8.0 mm			i. p.		PROFInet
Cat 6E <sub>A</sub>	straight	8	801318	N/A	5.0-8.5 mm	23-26	23-26	i. p.	IP67	TIA 568 A/B
	straight	8	805783	max. 1.6 mm	4.5-9.0 mm	22-24	22-27	i. p.	IP20	TIA 568 A/B
	angled 45°	8	805784		4.5-8.0 mm			i. p.		TIA 568 A/B
Cat 6 <sub>A</sub>	straight - metal	8	804544		5.0-9.5 mm	22-26	22-27/7	i. p.		TIA 568 A



i. p. = in preparation

# M12 COPPER CONNECTOR

Category	Connector	Pins	Item no:	Core Ø	Cable Ø	AWG Sld.	AWG Strd.	UL	Class	Standard
Cat 5 D-coded	straight - metal	4	803894	max. 1.6 mm	4.0-8.0 mm	22-26		N/A	IP67	
	angled 90° - metal	4	805958			22-26		N/A		
	straight - metal	4	805966			22-26		N/A		PROFInet
	straight - metal	4	806205	max. 2 mm	5.0-9.7 mm	20-24		N/A		PROFInet
	angled 90° - metal	4	805967	max. 1.6 mm	4.0-8.0 mm	22-26		N/A		PROFInet
Cat 6 <sub>A</sub> X-coded	straight - metal	8	805959	N/A	4.0-8.0 mm	26		yes		
	straight - metal	8	806206	max. 2 mm	5.0-9.7 mm	22-26		N/A		
	angled 90° - metal	8	805960	N/A	4.0-8.0 mm	26		yes		



# TOOLS

Type	Item no:	Description
PROFInet SK Stripping Tool	801497	For the dismantling and stripping of PROFInet™ types A, B and C with nom. 6.5 mm external diameter in one step.
ETHERNET Stripping tool	82902	For the dismantling of screened or unscreened data cables from 0.5 - 12.5 mm. Cutting of cables up to 4 mm² possible.

Further information can be found starting on page 345 of our catalogue, "Data, Network and Bus Technology."

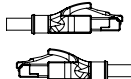
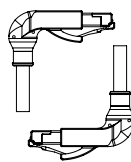

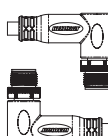
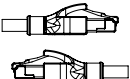
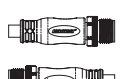




# PRE-ASSEMBLED COPPER CABLES

## PROFINET & INDUSTRIAL ETHERNET & CC-LINK IE

Connector side A	Cable type & length according to your specifications	Connector side B
RJ45 or M12	Profinet A	RJ45 or M12
	Profinet B	
	Profinet C	
	Industrial Ethernet fixed, flexible or drag chain / torsion	
RJ45	CC-Link IE	RJ45

# PATCHCABLE HELUKAT CONNECTING SYSTEMS INDUSTRY

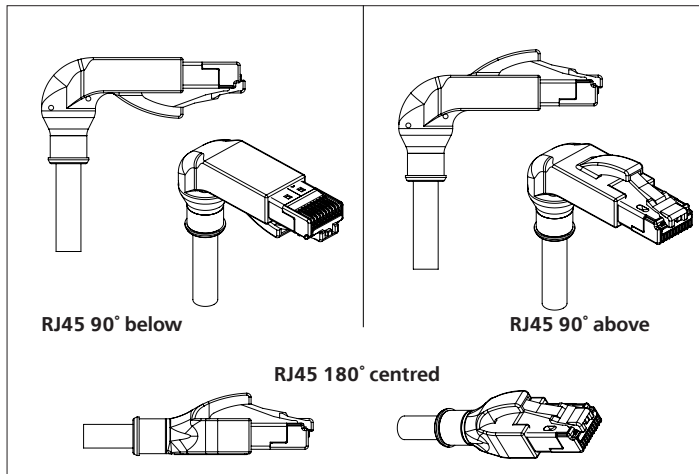
Item no:	Cable type	Connector	Combination	Length	Item no:	Cable type	Connector	Combination	Length	
806393	PROFINET A 2x2xAWG22/1 with PVC sheath for fixed laying UL CMG 75°C, PLTC or AWM 21694 600V CSA FT4 (for further technical details refer to item no. 800653)	RJ45 IP20 4P	straight on both sides	0.5 m	806401	PROFINET B 2x2xAWG22/7 with PVC sheath for flexible use UL CMG 75°C, PLTC or AWM 21694 600V CSA FT4 (for further technical details refer to item no. 800654)	RJ45 IP20 4P	straight on both sides	0.5 m	
806394				1.0 m	806402				1.0 m	
806395				2.0 m	806403			2.0 m		
806396				3.0 m	806404			3.0 m		
806397				5.0 m	806405			5.0 m		
806398				10.0 m	806406			10.0 m		
806399				15.0 m	806407			15.0 m		
806400				25.0 m	806408			25.0 m		
806425			angled 90° on both sides	0.5 m	806433			0.5 m		
806426				1.0 m	806434			1.0 m		
806427				2.0 m	806435			2.0 m		
806428				3.0 m	806436			3.0 m		
806429				5.0 m	806437			5.0 m		
806430				10.0 m	806438			10.0 m		
806431				15.0 m	806439			15.0 m		
806432				25.0 m	806440			25.0 m		
806457		M12 D-coded IP 67	straight on both sides	0.5 m	806465		0.5 m			
806458				1.0 m	806466		1.0 m			
806459				2.0 m	806467		2.0 m			
806460				3.0 m	806468		3.0 m			
806461				5.0 m	806469		5.0 m			
806462				10.0 m	806470		10.0 m			
806463				15.0 m	806471		15.0 m			
806464				25.0 m	806472		25.0 m			
806489			angled 90° on both sides	0.5 m	806497		0.5 m			
806490				1.0 m	806498		1.0 m			
806491				2.0 m	806499		2.0 m			
806492				3.0 m	806500		3.0 m			
806493				5.0 m	806501		5.0 m			
806494				10.0 m	806502		10.0 m			
806495				15.0 m	806503		15.0 m			
806496				25.0 m	806504		25.0 m			
					806521	PROFINET B 2x2xAWG22/7 with PVC sheath for flexible use UL CMG 75°C, PLTC or AWM 21694 600V CSA FT4 (for further technical details refer to item no. 800654)	RJ45 IP20 4P	straight on both sides	5.0 m	
					806522				10.0 m	
					806523				20.0 m	
					806524				25.0 m	
					806525		to		40.0 m	
					806526				50.0 m	
					806527		M12 D-coded IP67		60.0 m	
					806528				70.0 m	
					806529				80.0 m	
					806530				90.0 m	
					806531				100.0 m	







## RJ45 - MALE CONNECTOR IP20



### Cat. 5

Angled 90°,  
Latch above



### Cat. 6A

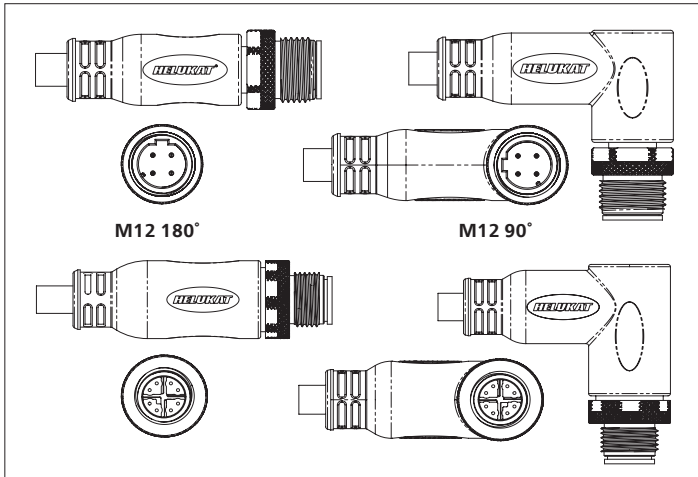
Angled 180°,  
Latch centred



Item no:	Cable type	Connector	Combination	Length
806409	Profinet C 2x2xAWG22/7 with PUR sheath for drag chains UL CMX 75°C (for further technical details refer to item no. 800655)	RJ45 IP20 4P	straight on both sides	0.5 m
806410				1.0 m
806411				2.0 m
806412				3.0 m
806413				5.0 m
806414				10.0 m
806415				15.0 m
806416				25.0 m
806449			angled 90° on both sides	0.5 m
806450				1.0 m
806451				2.0 m
806452				3.0 m
806453				5.0 m
806454				10.0 m
806455				15.0 m
806456				25.0 m
806481		M12 D-coded IP67	straight on both sides	0.5 m
806482				1.0 m
806483				2.0 m
806484				3.0 m
806485				5.0 m
806486				10.0 m
806487				15.0 m
806488				25.0 m
806505			angled 90° on both sides	0.5 m
806506				1.0 m
806507				2.0 m
806508				3.0 m
806509				5.0 m
806510				10.0 m
806511				15.0 m
806512				25.0 m

Item no:	Cable type	Connector	Combination	Length
806417	PROFINET C 2x2xAWG22/7 with PVC sheath for drag chains UL CMG 75°, PLTC or AWM 600V CSA FT4 (for further technical details refer to item no. 802914)	RJ45 IP20 4P	straight on both sides	0.5 m
806418				1.0 m
806419				2.0 m
806420				3.0 m
806421				5.0 m
806422				10.0 m
806423				15.0 m
806424				25.0 m
806441			angled 90° on both sides	0.5 m
806442				1.0 m
806443				2.0 m
806444				3.0 m
806445				5.0 m
806446				10.0 m
806447				15.0 m
806448				25.0 m
806473		M12 D-coded IP67	straight on both sides	0.5 m
806474				1.0 m
806475				2.0 m
806476				3.0 m
806477				5.0 m
806478				10.0 m
806479				15.0 m
806480				25.0 m
806513			angled 90° on both sides	0.5 m
806514				1.0 m
806515				2.0 m
806516				3.0 m
806517				5.0 m
806518				10.0 m
806519				15.0 m
806520				25.0 m
11007406		RJ45 IP20 4P to M12 D-coded IP67	straight on both sides	0.5 m
11007407				1.0 m
11007408				2.0 m
11007409				3.0 m
11007410				5.0 m
11007411				10.0 m
11007412				15.0 m
11007413				25.0 m

## M12 - MALE CONNECTOR IP67



### D-coded Cat. 5

Angled 90°



### X-coded Cat. 6A

Angled 90°



Item no:	Cable type*	Connector	Combination	Length
806546	Industrial Ethernet HELUKAT100S SF/UTP Cat.5e 4x2xAWG26/19 with PUR sheath for drag chain UL AWM (for further technical details refer to item no. 82839)	RJ45 IP20 8P	straight on both sides	0.5 m
806547				1.0 m
806548				2.0 m
806549				3.0 m
806550				5.0 m
806551				10.0 m
806552				15.0 m
806553				20.0 m
806554				25.0 m
806555			double sided angled 90°	0.5 m
806556				1.0 m
806557				2.0 m
806558				3.0 m
806559				5.0 m
806560				10.0 m
806561				15.0 m
806562				20.0 m
806563				25.0 m
806564		M12* D-coded IP67	on both sides straight	0.5 m
806565				1.0 m
806566				2.0 m
806567				3.0 m
806568				5.0 m
806569				10.0 m
806570				15.0 m
806571				20.0 m
806572				25.0 m
806573			double sided angled 90°	0.5 m
806574				1.0 m
806575				2.0 m
806576				3.0 m
806577				5.0 m
806578				10.0 m
806579				15.0 m
806580				20.0 m
806581				25.0 m

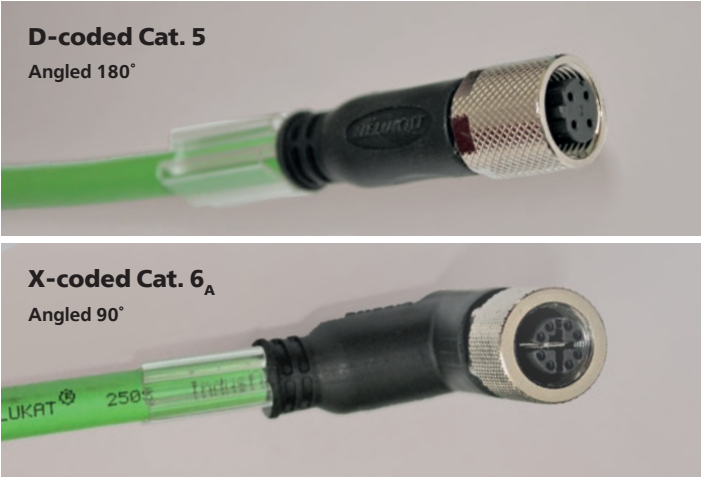
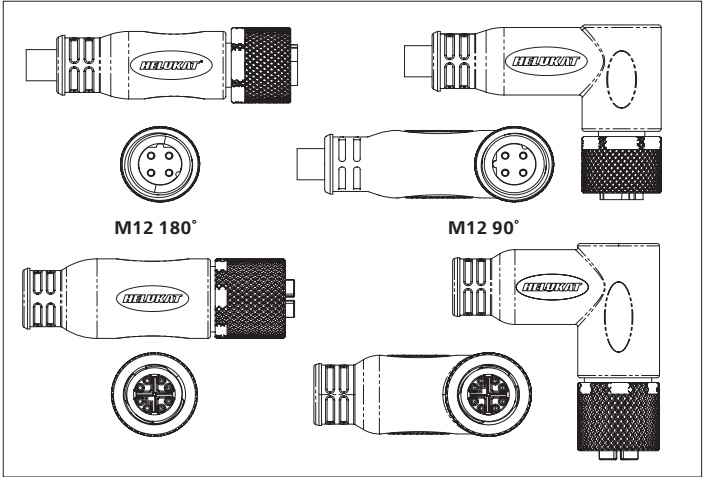
Item no:	Cable type*	Connector	Combination	Length
806532	Industrial Ethernet HELUKAT200 IND SF/UTP Cat.5e 4x2xAWG26/7 with PUR sheath for flexible usage (for further technical details refer to item no. 800068)	RJ45 IP20 8P	straight on both sides	0.5 m
806533				1.0 m
806534				2.0 m
806535				3.0 m
806536				5.0 m
806537				10.0 m
806538				15.0 m
806539		M12* D-coded IP67	straight on both sides	0.5 m
806540				1.0 m
806541				2.0 m
806542				3.0 m
806543				5.0 m
806544				10.0 m
806545				15.0 m




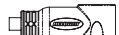
\* M12 D-coded only available with 4-pins





\* M12 D-coded only available with 4-pins



M12 - FEMALE CONNECTOR IP67



Item no:	Cable type	Connector	Combination	Length
806582	Industrial Ethernet HELUKAT500S SF/FTP Cat.6 <sub>A</sub> 4x2xAWG26/7 with PUR sheath for drag chain UL CMX 75° (for further technical details refer to item no. 805548)	RJ45 IP20 8P	straight on both sides	0.5 m
806583				1.0 m
806584				2.0 m
806585				3.0 m
806586				5.0 m
806587				10.0 m
806588				15.0 m
806589				20.0 m
806590				25.0 m
806591		M12 X-coded IP67	double sided angled 90°	0.5 m
806592				1.0 m
806593				2.0 m
806594				3.0 m
806595				5.0 m
806596				10.0 m
806597				15.0 m
806598				20.0 m
806599				25.0 m
806600			on both sides straight	0.5 m
806601				1.0 m
806602				2.0 m
806603				3.0 m
806604				5.0 m
806605				10.0 m
806606				15.0 m
806607				20.0 m
806608				25.0 m
806609			double sided angled 90°	0.5 m
806610				1.0 m
806611				2.0 m
806612				3.0 m
806613				5.0 m
806614				10.0 m
806615				15.0 m
806616				20.0 m
806617				25.0 m

Item no:	Cable type	Connector	Combination	Length
806618	Industrial Ethernet HELUKAT600 IND S/FTP Kat.6 <sub>A</sub> 4x2xAWG26/7 with PUR sheath for flexible usage, UL AWM (for further technical details refer to item no. 802184)	RJ45 IP20 8P	straight on both sides	0.5 m
806619				1.0 m
806620				2.0 m
806621				3.0 m
806622				5.0 m
806623				10.0 m
806624				15.0 m
806625				20.0 m
806626				25.0 m
806627		M12 X-coded IP67	double sided angled 90°	0.5 m
806628				1.0 m
806629				2.0 m
806630				3.0 m
806631				5.0 m
806632				10.0 m
806633				15.0 m
806634				20.0 m
806635				25.0 m
806636			on both sides straight	0.5 m
806637				1.0 m
806638				2.0 m
806639				3.0 m
806640				5.0 m
806641				10.0 m
806642				15.0 m
806643				20.0 m
806644				25.0 m
806645			double sided angled 90°	0.5 m
806646				1.0 m
806647				2.0 m
806648				3.0 m
806649				5.0 m
806650				10.0 m
806651				15.0 m
806652				20.0 m
806653				25.0 m



**PROFINET® Stripping tool**  
Item no: 801497



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