

# CONNECTORS

AGRICULTURAL & CONSTRUCTION MACHINES

# CONEC<sup>®</sup>

TECHNOLOGY IN CONNECTORS<sup>™</sup>







**TECHNOLOGY IN CONNECTORS™**

Industry 4.0, the current trend of increasing automation and data exchange in manufacturing environments, has resulted in new demands on electronic connectors.

More data, being transferred at faster speeds, and the need for high reliability in sometimes harsh environments, has forced the development of new connectors.

CONEC's nearly 40 years of experience positions us to be a world leader in these interconnect products.

CONEC is a global player with its own subsidiaries and/or production facilities in Canada, United States, China, Czech Republic, Poland, France and UK.

At our headquarters in Lippstadt, CONEC has a large Research and Development Department, its own tooling shop, a CNC precision turnery and a plastic injection moulding plant.

CONEC Germany, Lippstadt




CONEC Canada, Brampton



CONEC USA, Garner





In addition to a variety of connectors for all current standards, our particular strength is the development of customized solutions.

CONEC products are used in automation, telecommunications and energy technology, mechanical engineering, agriculture and medical technology, transportation and aviation industry.

Our synchronous production system „CONEC active“ is based on the principles of lean production and is the key to our sustained success.

In particular, we consider one of our strengths to be in the field of integrated moulding of components and assemblies.

To us, absolute customer orientation means: To deliver the right product at the right time, in the right quantity and the right quality to the right place.



<b>SECTION 1</b>	<b>ISOBUS CONNECTORS</b> _____	
	Nomenclature	8
	Product specification	9
	ISOBUS connectors female, overmoulded, open end cable	10
	ISOBUS connectors male, overmoulded, open end cable	11
	ISOBUS connectors overmoulded, connecting cable	12
<b>SECTION 2</b>	<b>VALVE CONNECTORS DT-SERIES</b> _____	
	Nomenclature	16
	Product specification	17
	DT06, 2-pos.	18
	DT04, 2-pos.	22
	DT06, 3-pos.	24
	DT04, 3-pos.	26
	DT06, 4-pos.	27
	DT04, 4-pos.	28
	DT06, 6-pos.	29
	DT04, 6-pos.	30
	DT06, 8-pos.	31
	DT04, 8-pos.	32
	DT06/DT04, 12-pos.	33
<b>SECTION 3</b>	<b>VALVE CONNECTORS SUPERSEAL-SERIES</b> _____	
	Nomenclature	36
	Product specification	37
	VSS 1.5, 2-pos.	38
	VSS 1.5, 3-pos., 4-pos.	39
	VSS 1.5, 4-pos., 5-pos.	40
	VSS 1.5, 6-pos.	41
<b>SECTION 4</b>	<b>M12x1 CONNECTORS OVERMOULDED WITH PLASTIC SCREW/NUT</b> _____	
	Nomenclature	44
	Product specification	45
	Female connectors axial, angled	46
	Male connectors axial, angled	47



<b>SECTION 5</b>	<b>JUNCTION SYSTEM TYPE S, M, L</b> _____	
	Fields of application	50
	Overview	51
	Example Type S, Type M	52
	Example Type L	53
<b>SECTION 6</b>	<b>TECHNICAL INFORMATION</b> _____	
	Protection circuits	56
	Cable qualities	58
	Overview pin assignment	59
	Protection classes	61
	Electrotechnical information	62
<b>SECTION 7</b>	<b>ADDITIONAL PRODUCT CATEGORIES</b> _____	
	CONEC SuperCon Power Hybrid connectors/Circular connectors overmoulded	68
	Circular connectors field attachable/Sockets	69
	Sockets SMT/THR/Panel plugs	70
	Power connectors/HT, F&B connectors	71
	BUS-systems/Junction systems	72
	IP67 Power Bayonet/IP67 Mini USB, USB	73
	IP67 RJ45/IP67 Fiber Optic LC Duplex	74
	D-SUB connectors/D-SUB filter connectors	75
	D-SUB hoods/IP67 D-SUB connectors	76
	IP67 filter D-SUB connectors/IP67 hoods	77
	PCB connectors/Customized products	78
	<b>PART NUMBER INDEX</b> _____	79

# SECTION 1

# ISOBUS CONNECTORS

---







# ISOBUS CONNECTORS

## Nomenclature

HDP26 - 24 - 91 - S - L1 - W / 600P / 2m

### Type

HDP26= Housing for socket contact

HDP24= Housing for plug contact

JPT = Housing JPT

### Size

24 = HDP

= JPT

### Number of poles

91 = HDP

16 = JPT

### Type

S = Socket

P = Plug

### Version (only HDP-series)

= without landing plate

L1 = with landing plate round

L2 = with landing plate with flats

### Corrugated tube

= without corrugated tube

W = with corrugated tube

### Leitung

600P = Hybride ((4Li9Y 0,50) + 2LiY2,50 + 2LiY6,00), TPU, black

1000P = Hybride ((4Li9Y 0,50) + 2LiY2,50 + 2LiY6,00), TPU, black

### Cable length

2m = 2 meter

5m = 5 meter

10m = 10 meter

### Connecting-cables

6m = 6 meter

9m = 9 meter

12m = 12 meter

# ISOBUS CONNECTORS

## Product specification

<b>Basic material</b>	
Contact	Copper alloy
Contact plating	HDP: Ni / JPT: Sn
Contact carrier	HDP: Thermoplast / JPT: PBT ASA GF30
Overmould	TPU, UL94 V-0, black
Landing plate (HDP)	PA6.6 UL94 V-0, black
Protective cover (HDP26)	PA6.6 UL94 V-0, black
Corrugated tube	PA6 UL94 HB, black
Sealing	Silicone
<b>Technical Data</b>	
Rated voltage	HDP: max. 32 V DC / JPT: max. 12 V DC
Current rating	max.: 600P altern. 1000P: 25 A at 40 °C [6 mm <sup>2</sup> ] altern. 35 A at 40 °C [10 mm <sup>2</sup> ] 15 A at 40 °C [2.5 mm <sup>2</sup> ] 5 A at 40 °C [0.5 mm <sup>2</sup> ]
Degree of protection	IP67 / IP69K in mated condition
Temperature range connectors	HDP: -40 °C bis +85 °C / JPT: -40 °C bis +80 °C
Temperature range cable	Fixed installation: -40 °C at +80 °C Flexible installation: -20 °C at +85 °C
Terminal cross section	600P                      1000P: 2 x 6 mm <sup>2</sup> 2 x 10 mm <sup>2</sup> + 2 x 2,5 mm <sup>2</sup> +            2 x 2,5 mm <sup>2</sup> + 4 x 0,5 mm <sup>2</sup> 4 x 0,5 mm <sup>2</sup>
Housing	HDP26 / HDP24 / JPT

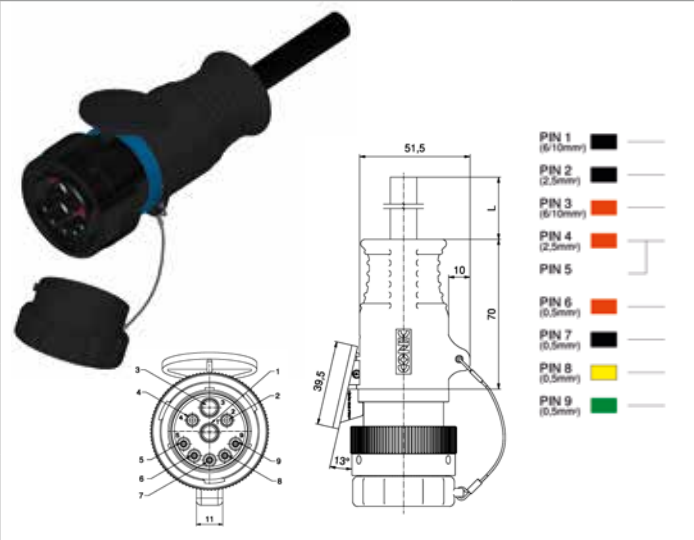
# ISOBUS CONNECTORS OVERMOULDED

## Open end cable

### Female connector HDP

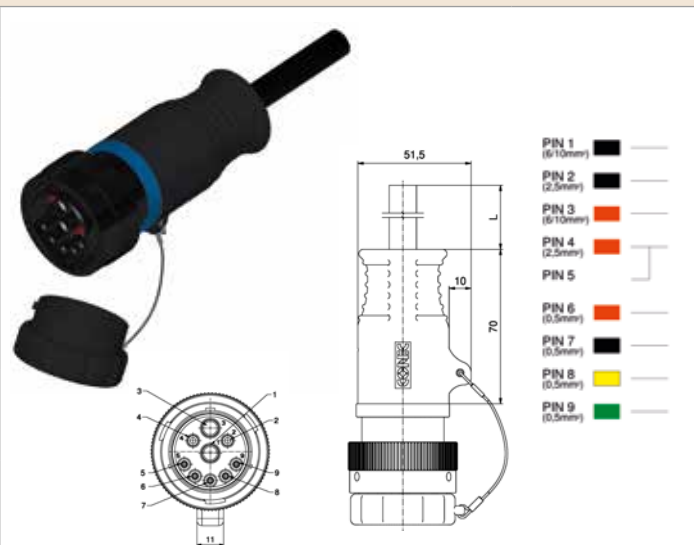
PUR hybrid cable

Contact assignment

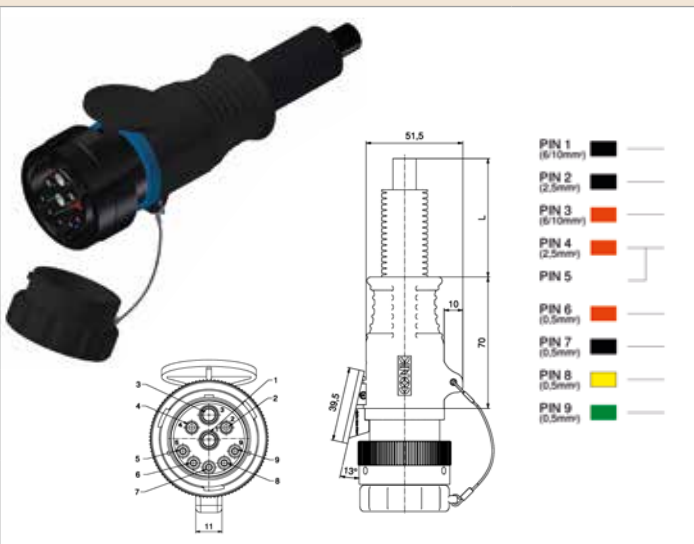


600P: 2 x 6 mm<sup>2</sup> [25 A] +  
2 x 2.5 mm<sup>2</sup> [15 A] +  
4 x 0.5 mm<sup>2</sup> [5 A]  
1000P: 2 x 10 mm<sup>2</sup> [35 A] +  
2 x 2.5 mm<sup>2</sup> [15 A] +  
4 x 0.5 mm<sup>2</sup> [5 A]

PUR hybrid cable



PUR hybrid cable with corrugated tube



No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Wire cross section [mm <sup>2</sup> ]	Landing plate	Description	Part No.			
9	max. 32 V DC	600P	2	2 x 6 2 x 2,5 4 x 0,5	✓	HDP26-24-91-S-L1/600P/2m	55-10001			
			5			HDP26-24-91-S-L1/600P/5m	55-10002			
			10			HDP26-24-91-S-L1/600P/10m	55-10003			
		1000P	2	HDP26-24-91-S-L1/1000P/2m		55-10007				
			5	2 x 10 2 x 2,5 4 x 0,5		HDP26-24-91-S-L1/1000P/5m	55-10008			
			10	HDP26-24-91-S-L1/1000P/10m		55-10009				
			9	max. 32 V DC		600P	2	HDP26-24-91-S/600P/2m	55-10004	
							5	2 x 6 2 x 2,5 4 x 0,5	HDP26-24-91-S/600P/5m	55-10005
							10	HDP26-24-91-S/600P/10m	55-10006	
1000P	2	HDP26-24-91-S/1000P/2m			55-10010					
	5	2 x 10 2 x 2,5 4 x 0,5			HDP26-24-91-S/1000P/5m	55-10011				
10	HDP26-24-91-S/1000P/10m	55-10012								
9	max. 32 V DC	600P	2	2 x 6 2 x 2,5 4 x 0,5	✓	HDP26-24-91-S-L1-W/600P/2m	55-10018			
			5			HDP26-24-91-S-L1-W/600P/5m	55-10021			
			10			HDP26-24-91-S-L1-W/600P/10m	55-10022			
		1000P	2	HDP26-24-91-S-L1-W/1000P/2m		55-10047				
			5	2 x 10 2 x 2,5 4 x 0,5		HDP26-24-91-S-L1-W/1000P/5m	55-10048			
			10	HDP26-24-91-S-L1-W/1000P/10m		55-10049				



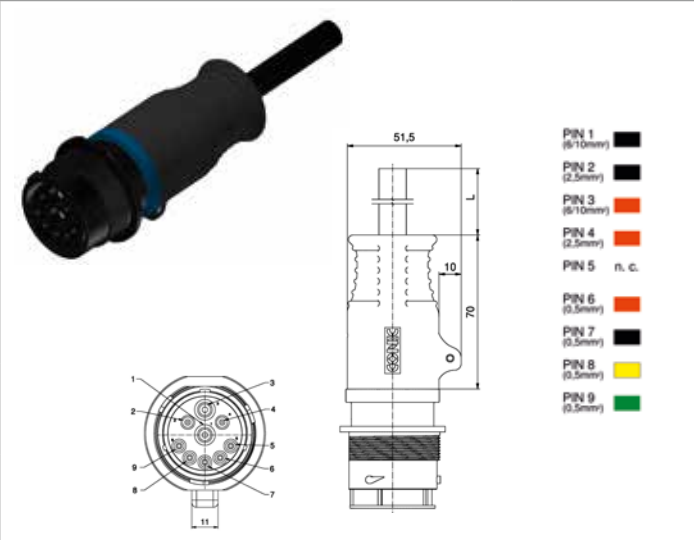
## ISOBUS CONNECTORS OVERMOULDED

### Open end cable

### Male connector HDP

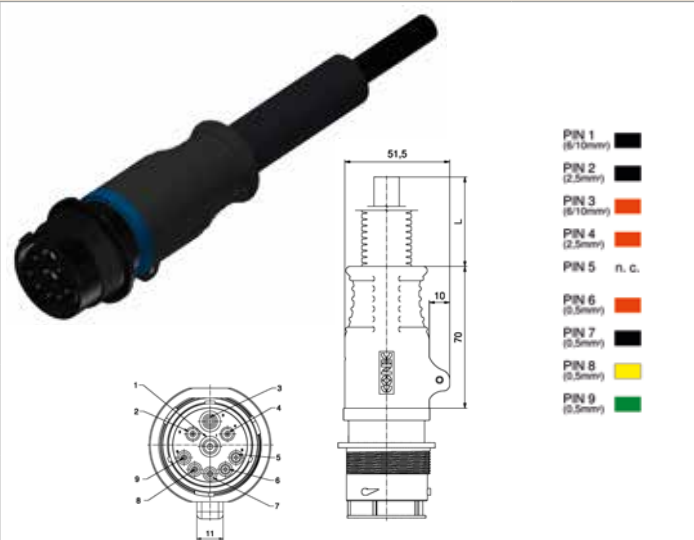
PUR hybrid cable

Contact assignment



600P: 2 x 6 mm<sup>2</sup> [25 A] +  
2 x 2.5 mm<sup>2</sup> [15 A] +  
4 x 0.5 mm<sup>2</sup> [5 A]  
1000P: 2 x 10 mm<sup>2</sup> [35 A] +  
2 x 2.5 mm<sup>2</sup> [15 A] +  
4 x 0.5 mm<sup>2</sup> [5 A]

PUR hybrid cable with corrugated tube



No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Wire cross section [mm <sup>2</sup> ]	Landing plate	Description	Part No.					
9	max. 32 V DC	600P	2	2 x 6 2 x 2,5 4 x 0,5		HDP24-24-91-P/600P/2m	55-10023					
			5			HDP24-24-91-P/600P/5m	55-10024					
			10			HDP24-24-91-P/600P/10m	55-10025					
		1000P	2	2 x 10 2 x 2,5 4 x 0,5		HDP24-24-91-P/1000P/2m	55-10026					
			5			HDP24-24-91-P/1000P/5m	55-10027					
			10			HDP24-24-91-P/1000P/10m	55-10028					
			9			max. 32 V DC	600P	2	2 x 6 2 x 2,5 4 x 0,5		HDP24-24-91-P-W/600P/2m	55-10029
								5			HDP24-24-91-P-W/600P/5m	55-10030
								10			HDP24-24-91-P-W/600P/10m	55-10031
2	HDP24-24-91-P-W/1000P/2m	55-10032										
1000P	5	2 x 10 2 x 2,5 4 x 0,5		HDP24-24-91-P-W/1000P/5m	55-10033							
	10			HDP24-24-91-P-W/1000P/10m	55-10034							

## ISOBUS CONNECTORS OVERMOULDED

### Connecting cable

#### Female connector HDP

#### PUR hybrid cable

#### Contact assignment

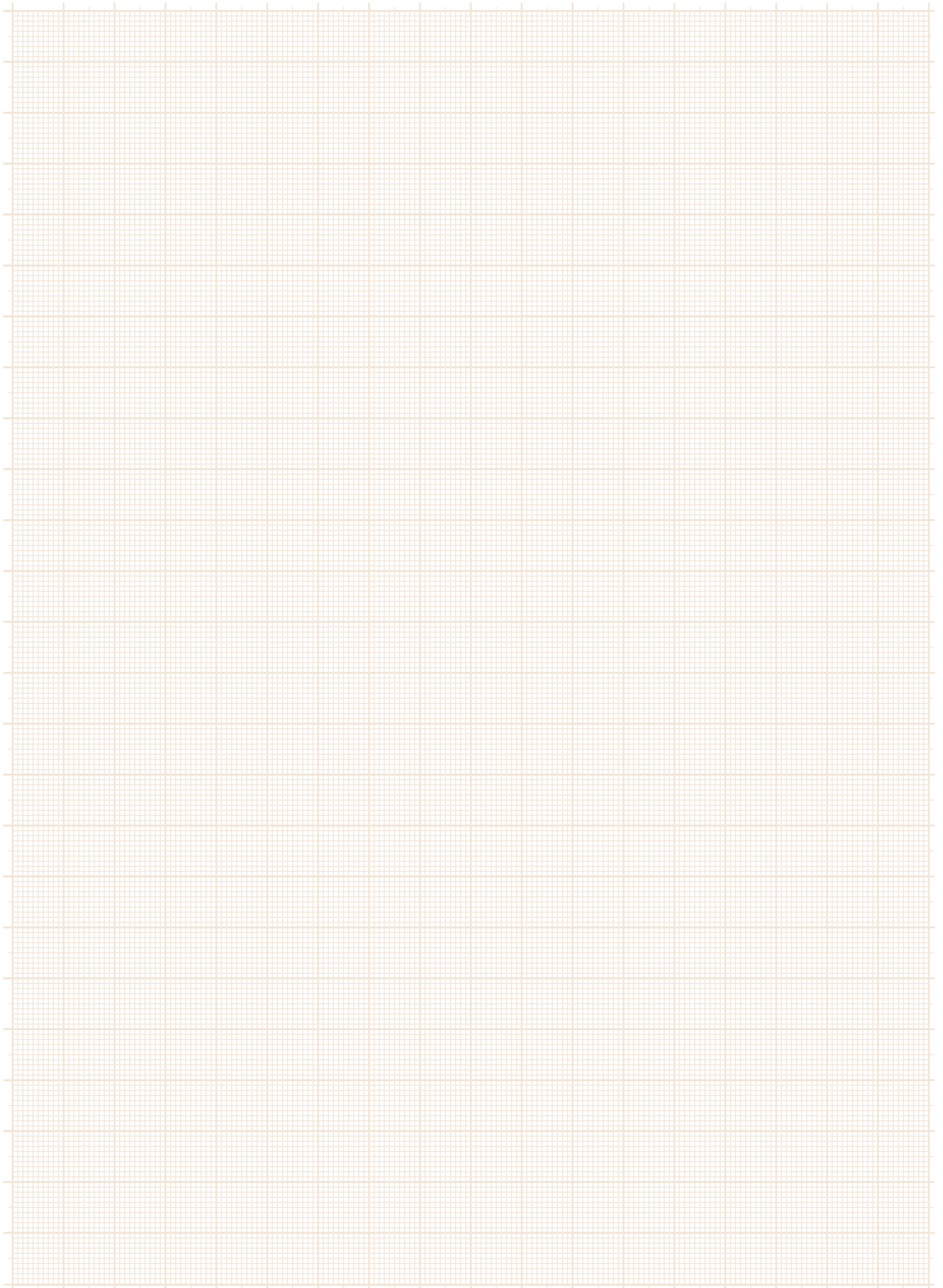
Description	Part No.	No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Wire cross section [mm <sup>2</sup> ]	Landing plate	
								Description
<p>PIN 1 (6.10mm) → 1 (black)</p> <p>PIN 2 (2.5mm) → 2 (black)</p> <p>PIN 3 (6.10mm) → 3 (orange)</p> <p>PIN 4 (2.5mm) → 4 (orange)</p> <p>PIN 5 → 5 n. c.</p> <p>PIN 6 (0.5mm) → 6 (orange)</p> <p>PIN 7 (0.5mm) → 7 (black)</p> <p>PIN 8 (0.5mm) → 8 (yellow)</p> <p>PIN 9 (0.5mm) → 9 (green)</p>	HDP26-24-91-S-L1-HDP24-24-91-P/600P/6m	55-10035	9	max. 32 V DC	600P	6	✓*	
	HDP26-24-91-S-L1-HDP24-24-91-P/600P/9m	55-10036						2x6 2x2,5 4x0,5
	HDP26-24-91-S-L1-HDP24-24-91-P/600P/12m	55-10037						
	HDP26-24-91-S-L1-HDP24-24-91-P/1000P/6m	55-10038				1000P		2x10 2x2,5 4x0,5
	HDP26-24-91-S-L1-HDP24-24-91-P/1000P/9m	55-10039						
	HDP26-24-91-S-L1-HDP24-24-91-P/1000P/12m	55-10040						

#### PUR hybrid cable with corrugated tube

<p>PIN 1 (6.10mm) → 1 (black)</p> <p>PIN 2 (2.5mm) → 2 (black)</p> <p>PIN 3 (6.10mm) → 3 (orange)</p> <p>PIN 4 (2.5mm) → 4 (orange)</p> <p>PIN 5 → 5 n. c.</p> <p>PIN 6 (0.5mm) → 6 (orange)</p> <p>PIN 7 (0.5mm) → 7 (black)</p> <p>PIN 8 (0.5mm) → 8 (yellow)</p> <p>PIN 9 (0.5mm) → 9 (green)</p>	HDP26-24-91-S-L1-HDP24-24-91-P-W/600P/6m	55-10041	9	max. 32 V DC	600P	6	✓*		
	HDP26-24-91-S-L1-HDP24-24-91-P-W/600P/9m	55-10042						2x6 2x2,5 4x0,5	
	HDP26-24-91-S-L1-HDP24-24-91-P-W/600P/12m	55-10043							
	HDP26-24-91-S-L1-HDP24-24-91-P-W/1000P/6m	55-10044						1000P	2x10 2x2,5 4x0,5
	HDP26-24-91-S-L1-HDP24-24-91-P-W/1000P/9m	55-10045							
	HDP26-24-91-S-L1-HDP24-24-91-P-W/1000P/12m	55-10046							

#### PUR hybrid cable

<p>PIN 1 (0.5mm) → 1 (black)</p> <p>PIN 2 (0.5mm) → 2 (black)</p> <p>PIN 3 (0.5mm) → 3 (orange)</p> <p>PIN 4 (0.5mm) → 4 (orange)</p> <p>PIN 5 (0.5mm) → 5 (black)</p> <p>PIN 6 (0.5mm) → 6 (black)</p> <p>PIN 7 (0.5mm) → 7 (black)</p> <p>PIN 8 (0.5mm) → 8 (black)</p> <p>PIN 9 (0.5mm) → 9 (orange)</p> <p>PIN 10 (0.5mm) → 10 (orange)</p> <p>PIN 11 (0.5mm) → 11 (orange)</p> <p>PIN 12 (0.5mm) → 12 (orange)</p> <p>PIN 13 (0.5mm) → 13 (orange)</p> <p>PIN 14 (0.5mm) → 14 (orange)</p> <p>PIN 15 (0.5mm) → 15 (orange)</p> <p>PIN 16 (0.5mm) → 16 (orange)</p> <p>n.c. → 1 (Wired (no contact))</p> <p>n.c. → 9 (Wired (no contact))</p> <p>ISOBUS HDP26</p> <p>JPT 16p</p>	HDP26-24-91-S-L1-JPT-16-S/1000P/6m	55-10051	9 / 16	max. 12 V DC	1000P	6	✓*	
	HDP26-24-91-S-L1-JPT-16-S/1000P/9m	55-10052						2x10 2x2,5 4x0,5
	HDP26-24-91-S-L1-JPT-16-S/1000P/12m	55-10053						





SECTION 2

# VALVE CONNECTORS DT-SERIES





# VALVE CONNECTORS DT-SERIES

## Nomenclature

DT06 - 2 S L - A / K1 / 0.75 / 2m

### Type

DT06 = Housing for socket contacts  
DT04 = Housing for plug contacts

### No of pos.

2 = 2-pos.  
3 = 3-pos.  
4 = 4-pos.  
6 = 6-pos.  
8 = 8-pos. A-coding  
12 = 12-pos. A-coding

### Type

S = Socket contacts/Plug housing  
P = Plug contacts/Receptacle housing

### Cable style

= Cable  
L = Single wire (only 2-pos. version)

### Termination protection tube

= Standard  
G = Thread M12x1

### Protection circuit

A = without protection circuit  
B = with protection circuit Suppressor diode max. 12 V AC/24 V DC  
E = with protection circuit Varistor max. 24 V AC/30 V DC  
F = with protection circuit Freewheeling diode max. 32 V DC  
G = with protection circuit Suppressor diode max. 22 V AC/32 V DC

### Material cable

K1 = TPU, black, highflexible, halogenfree, UL  
A1 = PVC single wire

### Wire cross section

0.75 = 0.75 mm<sup>2</sup>  
other types upon request

### Cable length

2m = 2 meter  
5m = 5 meter  
10m = 10 meter



# VALVE CONNECTORS DT-SERIES

## Product specification

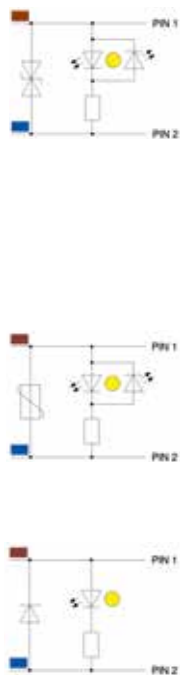
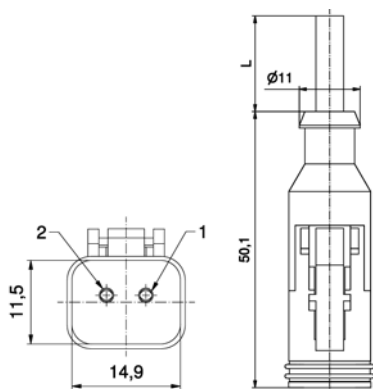
<b>Basic material</b>	
Contact	Copper alloy
Contact plating	Ni
Contact carrier	Thermoplast
Overmould	TPU, UL94, translucent
Sealing	Silicone
<b>Technical Data</b>	
Rated voltage	with LED and protection circuit [B]: max. 12 V AC/ 24 V DC with LED and protection circuit [E]: max. 24 V AC/30 V DC with LED and protection circuit [F]: max. 32 V DC with LED and protection circuit [G]: max. 22 V AC/32 V DC without protection circuit: 10 - 230 AC/DC
Current rating	max. 8 A at 40 °C [2-, 3-pos.] 7 A at 40 °C [4-pos.] 6 A at 40 °C [6-, 8-pos.] 5 A at 40 °C [12-pos.]
Degree of protection	IP67 / IP69K in mated condition
Temperature range connectors	-40 °C to +85 °C
Temperature range cable	Fixed installation: -40 °C to +80 °C Flexible installation: -25 °C to +80 °C
Temperature range single wire	Fixed installation: -40 °C to +105 °C Flexible installation: -10 °C to +105 °C
Terminal cross section	0.75 mm <sup>2</sup> /AWG 18
Housing	Deutsch DT06/DT04
Protection circuit	Suppressor diode + 2x LED yellow Varistor + 2x LED yellow Freewheeling diode + LED yellow

**VALVE CONNECTORS**  
DT-Series

**DT06, 2-pos.**  
Socket contacts

LED-protection circuit

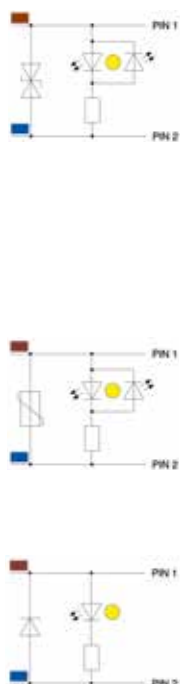
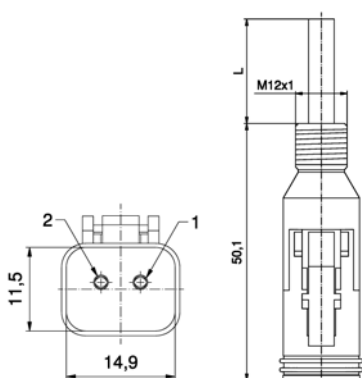
Contact assignment



No. of poles	Type of protection circuit	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Cable quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
2	B	12 V AC / 24 V DC	8	2	PUR	2 x 0,75	DT06-2S-B/K1/0.75/2m	55-00376
				5			DT06-2S-B/K1/0.75/5m	55-00377
				10			DT06-2S-B/K1/0.75/10m	55-00378
	G	8 - 22 V AC / 32 V DC	4	2	PUR	2 x 0,75	DT06-2S-G/K1/0.75/2m	55-00760
				5			DT06-2S-G/K1/0.75/5m	55-00761
				10			DT06-2S-G/K1/0.75/10m	55-00762
	E	8 - 24 V AC / 30 V DC	4	2	PUR	2 x 0,75	DT06-2S-E/K1/0.75/2m	55-00687
				5			DT06-2S-E/K1/0.75/5m	55-00688
				10			DT06-2S-E/K1/0.75/10m	55-00689
	F	10 - 32 V DC	4	2	PUR	2 x 0,75	DT06-2S-F/K1/0.75/2m	55-00690
				5			DT06-2S-F/K1/0.75/5m	55-00691
				10			DT06-2S-F/K1/0.75/10m	55-00692

Types of protection circuit DT06 (2-, 3-pos.):  
 • B/G= Suppressordiode + 2x LED yellow  
 • E= Varistor + 2x LED yellow  
 • F= Freewheeling Diode + LED yellow  
 Technical information look at page 56 + 57

LED-protection circuit, M12 thread



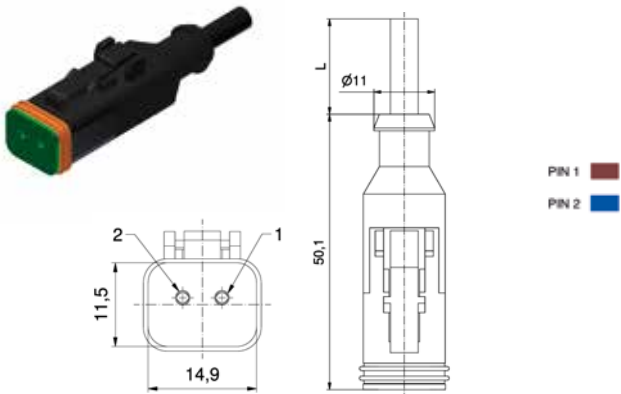
2	B	12 V AC / 24 V DC	8	2	PUR	2 x 0,75	DT06-2SG-B/K1/0.75/2m	55-00379
				5			DT06-2SG-B/K1/0.75/5m	55-00380
				10			DT06-2SG-B/K1/0.75/10m	55-00381
	G	8 - 22 V AC / 32 V DC	4	2	PUR	2 x 0,75	DT06-2SG-G/K1/0.75/2m	55-00763
				5			DT06-2SG-G/K1/0.75/5m	55-00764
				10			DT06-2SG-G/K1/0.75/10m	55-00765
	E	8 - 24 V AC / 30 V DC	4	2	PUR	2 x 0,75	DT06-2SG-E/K1/0.75/2m	55-00700
				5			DT06-2SG-E/K1/0.75/5m	55-00701
				10			DT06-2SG-E/K1/0.75/10m	55-00702
	F	10 - 32 V DC	4	2	PUR	2 x 0,75	DT06-2SG-F/K1/0.75/2m	55-00703
				5			DT06-2SG-F/K1/0.75/5m	55-00704
				10			DT06-2SG-F/K1/0.75/10m	55-00705

**VALVE CONNECTORS**  
DT-Series

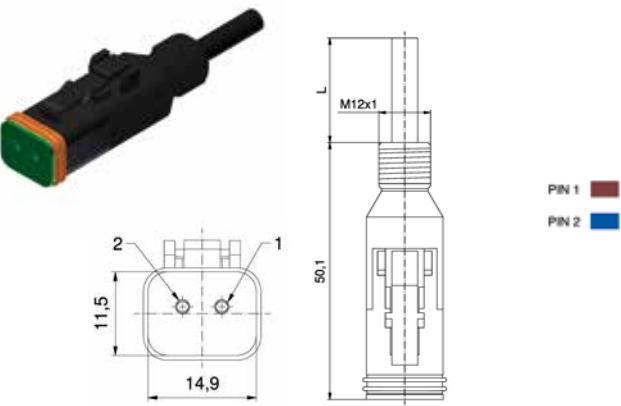
**DT06, 2-pos.**  
Socket contacts

Without LED-protection circuit

Contact assignment

		No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Cable quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
	2	10 - 230 V AC/ DC	8	5	PUR	2 x 0,75	DT06-2S-A/K1/0.75/2m	55-00388	
							DT06-2S-A/K1/0.75/5m	55-00389	
							DT06-2S-A/K1/0.75/10m	55-00390	

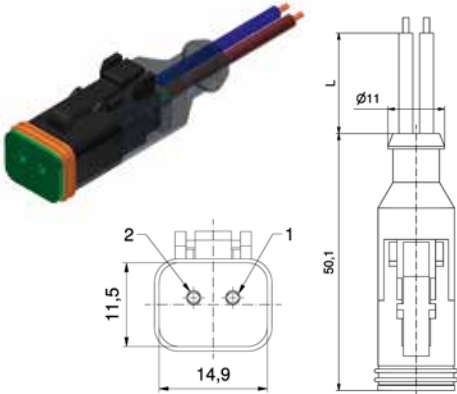
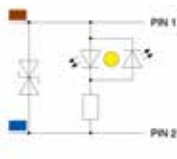
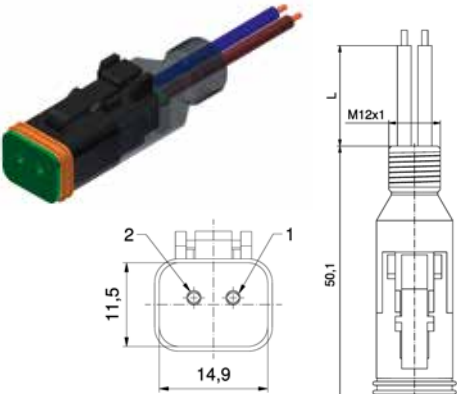
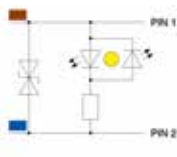
Without LED-protection circuit, M12 thread

	2	10 - 230 V AC/ DC	8	5	PUR	2 x 0,75	DT06-2SG-A/K1/0.75/2m	55-00391
							DT06-2SG-A/K1/0.75/5m	55-00392
							DT06-2SG-A/K1/0.75/10m	55-00393

**VALVE CONNECTORS**  
DT-Series

DT06, 2-pos.  
Socket contacts, single wire

Type of protection circuit DT06 2-pos. single wire:  
• B= Suppressordiode + 2x LED yellow  
Additional types of protection circuit upon request  
Technical information look at page 56 + 57

LED-protection circuit		Contact assignment	No. of poles	Type of protection circuit	Rated voltage [A]	Current rating [A]	Wire length = L [m]	Wire quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
		2	B	12 V AC / 24 V DC	8	2	PVC	2 x 0,75	DT06-2SL-B/A1/0.75/0,5m	55-00560	
									DT06-2SL-B/A1/0.75/2m	55-00482	
									DT06-2SL-B/A1/0.75/5m	55-00561	
<b>LED-protection circuit, M12 thread</b>											
		2	B	12 V AC / 24 V DC	8	2	PVC	2 x 0,75	DT06-2SLG-B/A1/0.75/0,5m	55-00562	
									DT06-2SLG-B/A1/0.75/2m	55-00483	
									DT06-2SLG-B/A1/0.75/5m	55-00563	

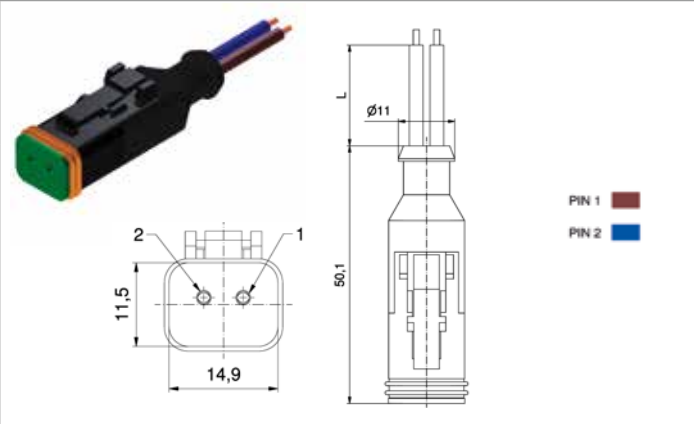


**VALVE CONNECTORS**  
DT-Series

DT06, 2-pos.  
Socket contacts, single wire

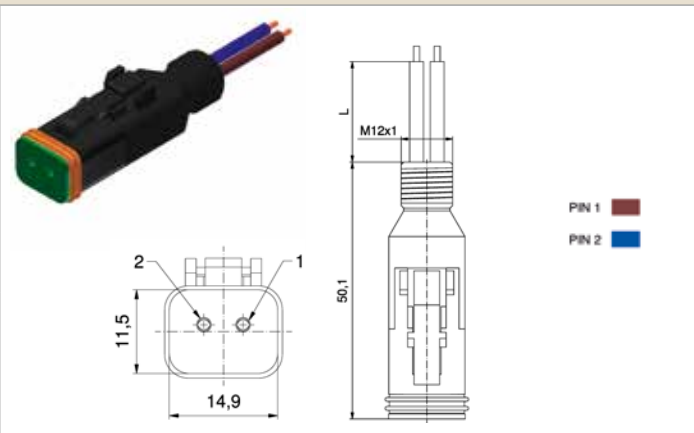
Without LED-protection circuit

Contact assignment



No. of poles	Rated voltage [A]	Current rating [A]	Wire length = L [m]	Wire quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
2	10 - 230 V AC/ DC	8	2	PVC	2 x 0,75	DT06-2SL-A/A1/0.75/0,5m	55-00564
						DT06-2SL-A/A1/0.75/2m	55-00565
						DT06-2SL-A/A1/0.75/5m	55-00566

Without LED-protection circuit, M12 thread

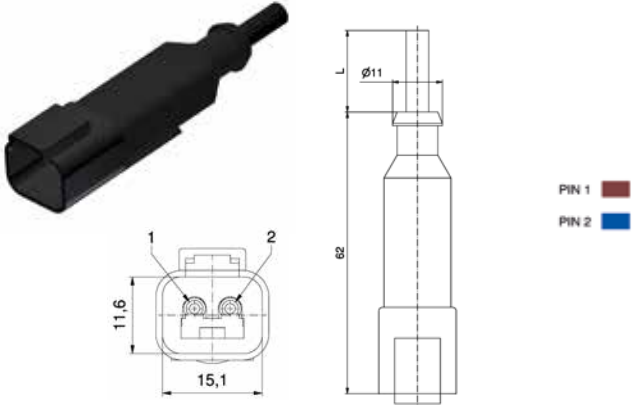
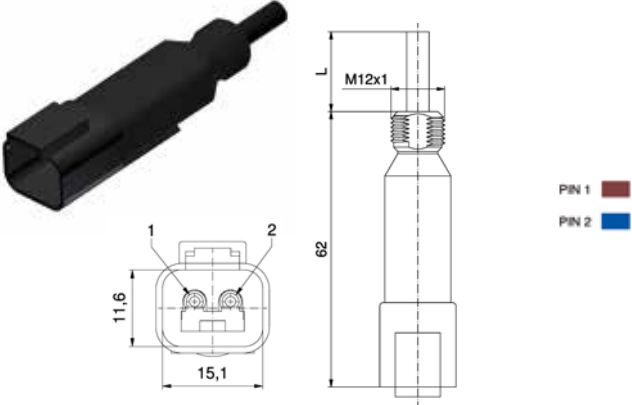


2	10 - 230 V AC/ DC	8	2	PVC	2 x 0,75	DT06-2SLG-A/A1/0.75/0,5m	55-00567
						DT06-2SLG-A/A1/0.75/2m	55-00568
						DT06-2SLG-A/A1/0.75/5m	55-00569

**VALVE CONNECTORS**  
DT-Series

**DT04, 2-pos.**  
**Plug contacts**

Protection circuits DT04 (2-, 3-pos.) upon request  
Technical information look at page 56 + 57

Without LED-protection circuit		Contact assignment	No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Cable quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
	2	10 - 230 V AC/ DC	8	5	PUR	2 x 0,75	2	DT04-2P-A/K1/0.75/2m	55-00448	
							5	DT04-2P-A/K1/0.75/5m	55-00449	
							10	DT04-2P-A/K1/0.75/10m	55-00450	
<b>Without LED-protection circuit, M12 thread</b>										
	2	10 - 230 V AC/ DC	8	5	PUR	2 x 0,75	2	DT04-2PG-A/K1/0.75/2m	55-00451	
							5	DT04-2PG-A/K1/0.75/5m	55-00452	
							10	DT04-2PG-A/K1/0.75/10m	55-00453	

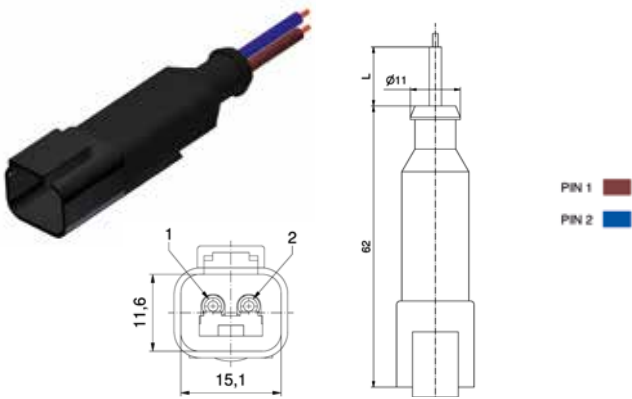
**VALVE CONNECTORS**  
DT-Series

**DT04, 2-pos.**  
Plug contacts, single wire

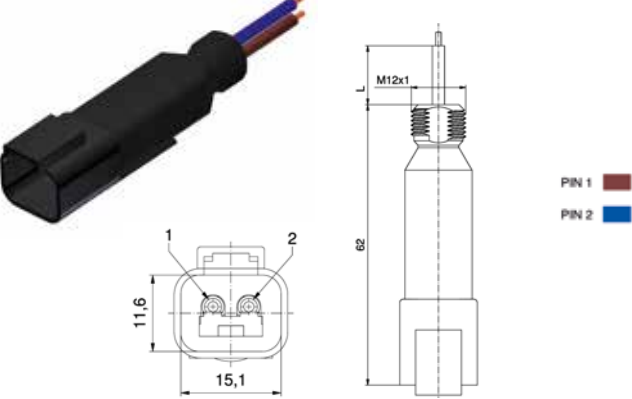
Protection circuits DT04 (2-, 3-pos.) upon request  
Technical information look at page 56 + 57

Without LED-protection circuit

Contact assignment

		No. of poles	Rated voltage [A]	Current rating [A]	Wire length = L [m]	Wire quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
	2	10 - 230 V AC/ DC	8	2	PVC	2 x 0,75	0.5	DT04-2PL-A/A1/0.75/0,5m	55-00576
							2	DT04-2PL-A/A1/0.75/2m	55-00577
							5	DT04-2PL-A/A1/0.75/5m	55-00578

Without LED-protection circuit, M12 thread


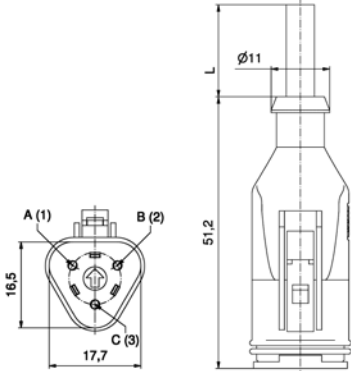
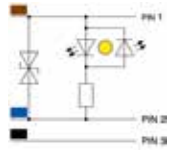
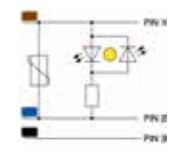
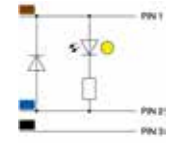

	2	10 - 230 V AC/ DC	8	2	PVC	2 x 0,75	0.5	DT04-2PLG-A/A1/0.75/0,5m	55-00579
							2	DT04-2PLG-A/A1/0.75/2m	55-00580
							5	DT04-2PLG-A/A1/0.75/5m	55-00581

**VALVE CONNECTORS**  
DT-Series


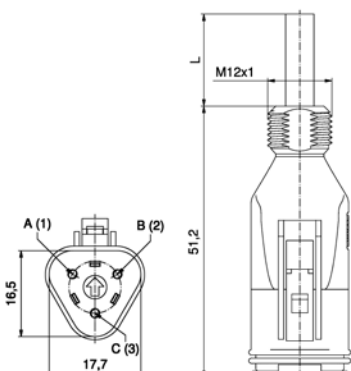
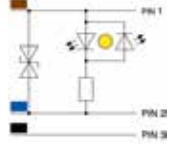
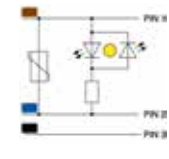
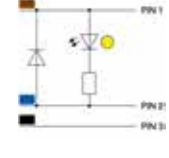

**DT06, 3-pos.**  
Socket contacts

LED-protection circuit

Contact assignment

LED-protection circuit		Contact assignment		No. of poles	Type of protection circuit	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Cable quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
 	   	3	B	12 V AC / 24 V DC	8	2	5	10	PUR	3 x 0,75	DT06-3S-B/K1/0.75/2m	55-00850
											DT06-3S-B/K1/0.75/5m	55-00851
											DT06-3S-B/K1/0.75/10m	55-00852
			DT06-3S-G/K1/0.75/2m	55-00772								
			DT06-3S-G/K1/0.75/5m	55-00773								
			DT06-3S-G/K1/0.75/10m	55-00774								
			DT06-3S-E/K1/0.75/2m	55-00720								
			DT06-3S-E/K1/0.75/5m	55-00721								
			DT06-3S-E/K1/0,75/10m	55-00722								
			DT06-3S-F/K1/0.75/2m	55-00751								
			DT06-3S-F/K1/0.75/5m	55-00752								
			DT06-3S-F/K1/0.75/10m	55-00753								

LED-protection circuit, M12 thread

 	   	3	B	12 V AC / 24 V DC	8	2	5	10	PUR	3 x 0,75	DT06-3SG-B/K1/0.75/2m	55-00853
											DT06-3SG-B/K1/0.75/5m	55-00854
											DT06-3SG-B/K1/0.75/10m	55-00855
			DT06-3SG-G/K1/0.75/2m	55-00775								
			DT06-3SG-G/K1/0.75/5m	55-00776								
			DT06-3SG-G/K1/0.75/10m	55-00777								
			DT06-3SG-E/K1/0.75/2m	55-00723								
			DT06-3SG-E/K1/0.75/5m	55-00724								
			DT06-3SG-E/K1/0,75/10m	55-00725								
			DT06-3SG-F/K1/0.75/2m	55-00754								
			DT06-3SG-F/K1/0.75/5m	55-00755								
			DT06-3SG-F/K1/0.75/10m	55-00756								

Types of protection circuit DT06 (2-, 3-pos.):  
 • B/G= Suppressordiode + 2x LED yellow  
 • E= Varistor + 2x LED yellow  
 • F= Freewheeling Diode + LED yellow  
 Technical information look at page 56 + 57

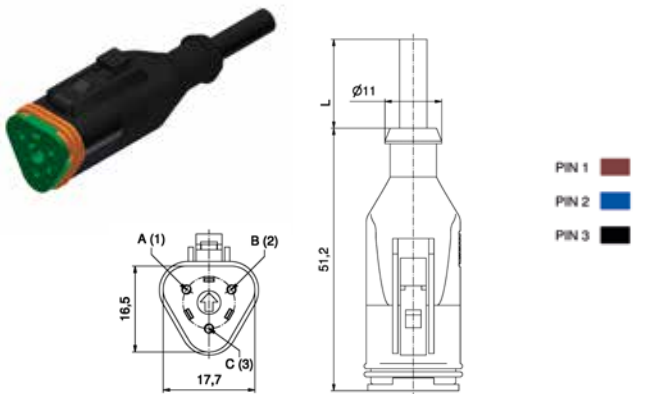


**VALVE CONNECTORS**  
DT-Series

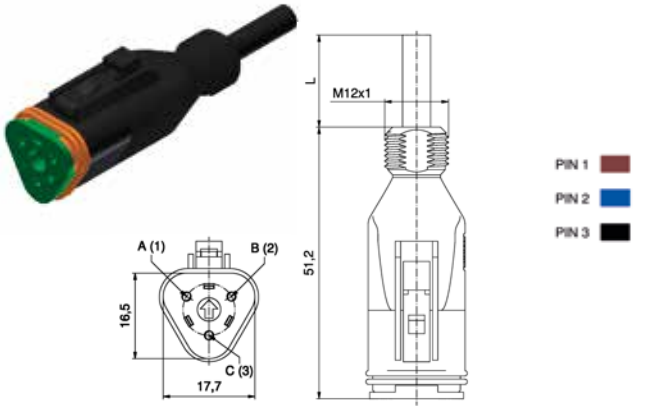
**DT06, 3-pos.**  
Socket contacts

Without LED-protection circuit

Contact assignment

		No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Cable quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
	3	10 - 230 V AC/ DC	8	5	PUR	3 x 0,75	2	DT06-3S-A/K1/0.75/2m	55-00826
							5	DT06-3S-A/K1/0.75/5m	55-00827
							10	DT06-3S-A/K1/0.75/10m	55-00828

Without LED-protection circuit, M12 thread

	3	10 - 230 V AC/ DC	8	5	PUR	3 x 0,75	2	DT06-3SG-A/K1/0.75/2m	55-00829
							5	DT06-3SG-A/K1/0.75/5m	55-00830
							10	DT06-3SG-A/K1/0.75/10m	55-00831

**VALVE CONNECTORS**  
DT-Series

**DT04, 3-pos.**  
**Plug contacts**

Protection circuits DT04 (2-, 3-pos.) upon request  
Technical information look at page 56 + 57

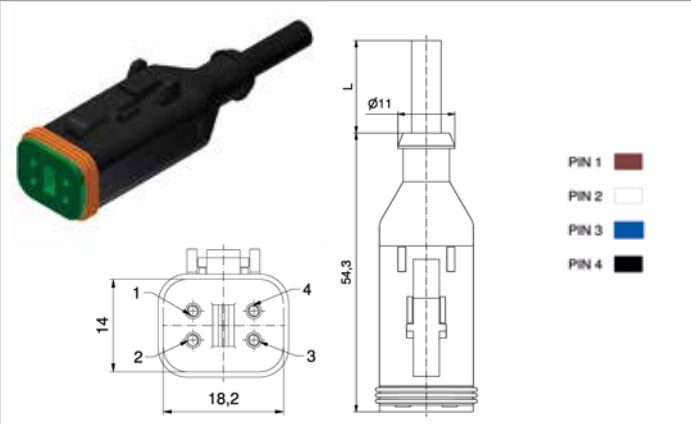
Without LED-protection circuit		Contact assignment	No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Cable quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
			3	10 - 230 V AC/DC	8	5	PUR	3 x 0,75	DT04-3P-A/K1/0.75/2m	55-00832
									DT04-3P-A/K1/0.75/5m	55-00833
									DT04-3P-A/K1/0.75/10m	55-00834
<b>Without LED-protection circuit, M12 thread</b>										
			3	10 - 230 V AC/DC	8	5	PUR	3 x 0,75	DT04-3PG-A/K1/0.75/2m	55-00835
									DT04-3PG-A/K1/0.75/5m	55-00836
									DT04-3PG-A/K1/0.75/10m	55-00837

**VALVE CONNECTORS**  
DT-Series

DT06, 4-pos.  
Socket contacts

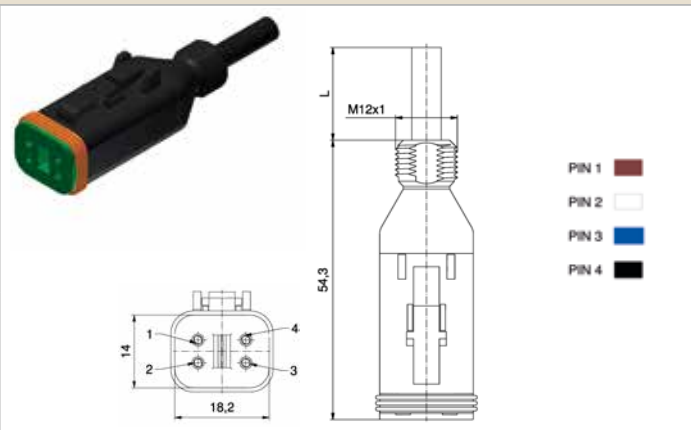
Without LED-protection circuit

Contact assignment



No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Cable quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
4	10 - 230 V AC/ DC	7	2	PUR	4 x 0,75	DT06-4S-A/K1/0.75/2m	55-00838
			5			DT06-4S-A/K1/0.75/5m	55-00839
			10			DT06-4S-A/K1/0.75/10m	55-00840

Without LED-protection circuit, M12 thread



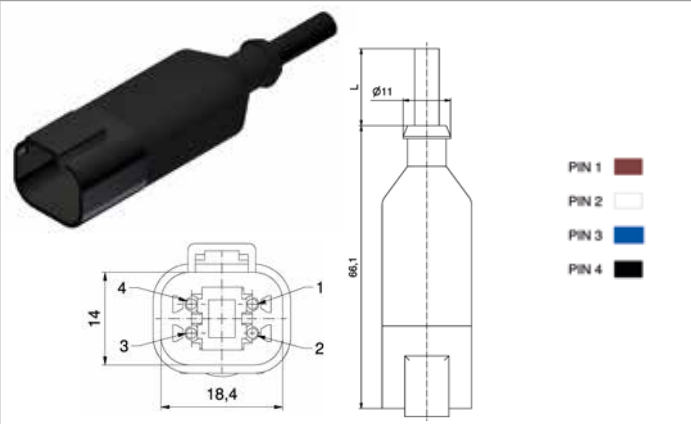
4	10 - 230 V AC/ DC	7	2	PUR	4 x 0,75	DT06-4SG-A/K1/0.75/2m	55-00841
			5			DT06-4SG-A/K1/0.75/5m	55-00842
			10			DT06-4SG-A/K1/0.75/10m	55-00843

**VALVE CONNECTORS**  
DT-Series

**DT04, 4-pos.**  
**Plug contacts**

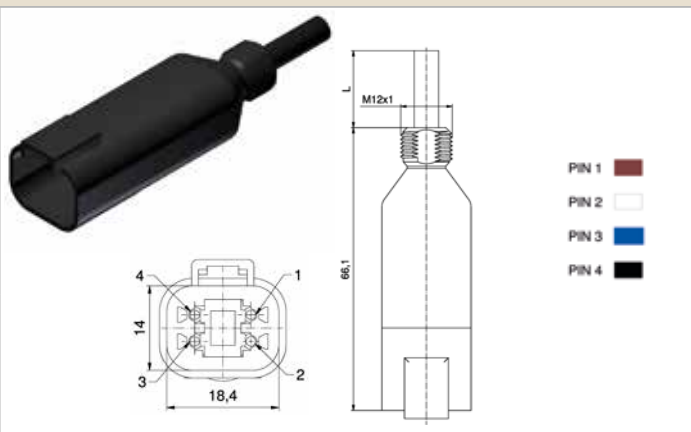
Without LED-protection circuit

Contact assignment



No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Cable quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
4	10 - 230 V AC/ DC	7	5	PUR	4 x 0,75	DT04-4P-A/K1/0.75/2m	55-00844
						DT04-4P-A/K1/0.75/5m	55-00845
						DT04-4P-A/K1/0.75/10m	55-00846

Without LED-protection circuit, M12 thread



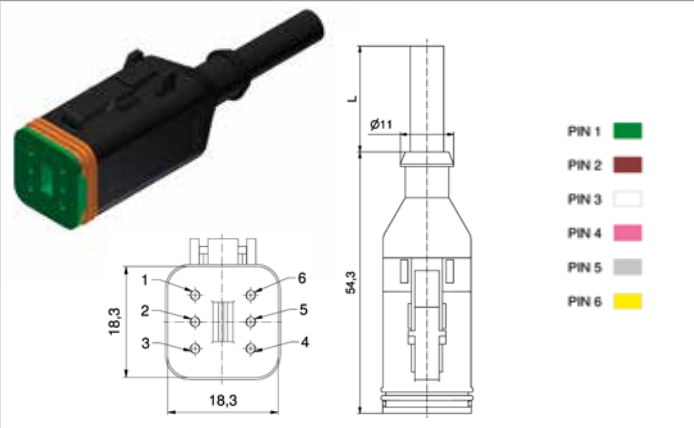
4	10 - 230 V AC/ DC	7	5	PUR	4 x 0,75	DT04-4PG-A/K1/0.75/2m	55-00847
						DT04-4PG-A/K1/0.75/5m	55-00848
						DT04-4PG-A/K1/0.75/10m	55-00849

**VALVE CONNECTORS**  
DT-Series

**DT06, 6-pos.**  
Socket contacts

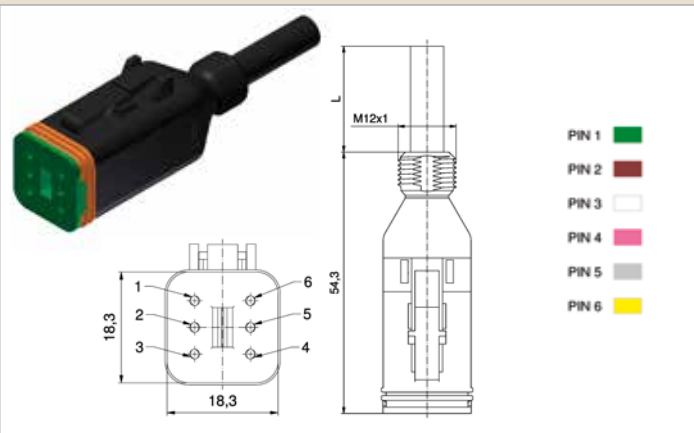
Without LED-protection circuit

Contact assignment



No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Cable quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
6	10 - 230 V AC/ DC	6	2	PUR	6 x 0,75	DT06-6S-A/K1/0.75/2m	55-00501
			5			DT06-6S-A/K1/0.75/5m	55-00502
			10			DT06-6S-A/K1/0.75/10m	55-00503

Without LED-protection circuit, M12 thread



6	10 - 230 V AC/ DC	6	2	PUR	6 x 0,75	DT06-6SG-A/K1/0.75/2m	55-00504
			5			DT06-6SG-A/K1/0.75/5m	55-00505
			10			DT06-6SG-A/K1/0.75/10m	55-00506

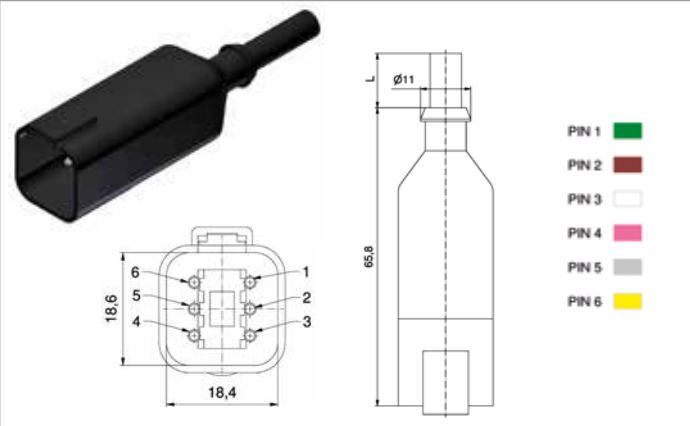


**VALVE CONNECTORS**  
DT-Series

**DT04, 6-pos.**  
**Plug contacts**

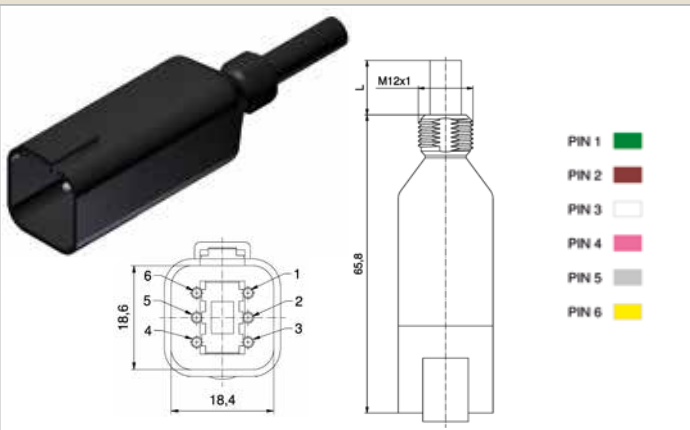
Without LED-protection circuit

Contact assignment



No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Cable quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
6	10 - 230 V AC/ DC	6	2	PUR	6 x 0,75	DT04-6P-A/K1/0.75/2m	55-00507
			5			DT04-6P-A/K1/0.75/5m	55-00508
			10			DT04-6P-A/K1/0.75/10m	55-00509

Without LED-protection circuit, M12 thread



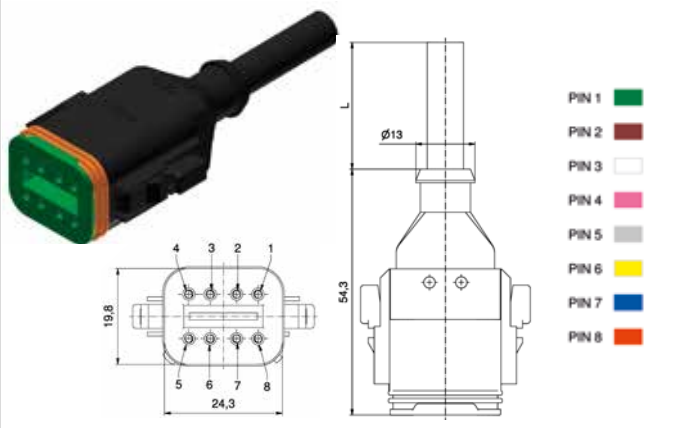
6	10 - 230 V AC/ DC	6	2	PUR	6 x 0,75	DT04-6PG-A/K1/0.75/2m	55-00510
			5			DT04-6PG-A/K1/0.75/5m	55-00511
			10			DT04-6PG-A/K1/0.75/10m	55-00512

**VALVE CONNECTORS**  
DT-Series

DT06, 8-pos.  
Socket contacts

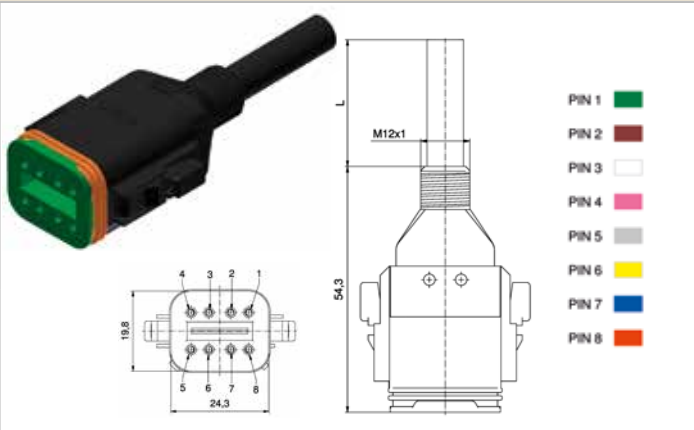
Without LED-protection circuit

Contact assignment



No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Cable quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
8	10 - 230 V AC/ DC	6	5	PUR	8 x 0,75	DT06-8AS-A/K1/0.75/2m	55-00526
						DT06-8AS-A/K1/0.75/5m	55-00527
						DT06-8AS-A/K1/0.75/10m	55-00528

Without LED-protection circuit, M12 thread



8	10 - 230 V AC/ DC	6	5	PUR	8 x 0,75	DT06-8ASG-A/K1/0.75/2m	55-00532
						DT06-8ASG-A/K1/0.75/5m	55-00533
						DT06-8ASG-A/K1/0.75/10m	55-00534

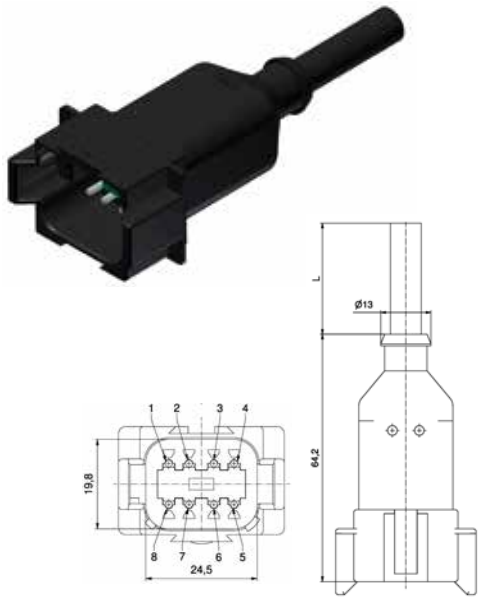
**VALVE CONNECTORS**  
DT-Series

DT04, 8-pos.  
Plug contacts

Without LED-protection circuit

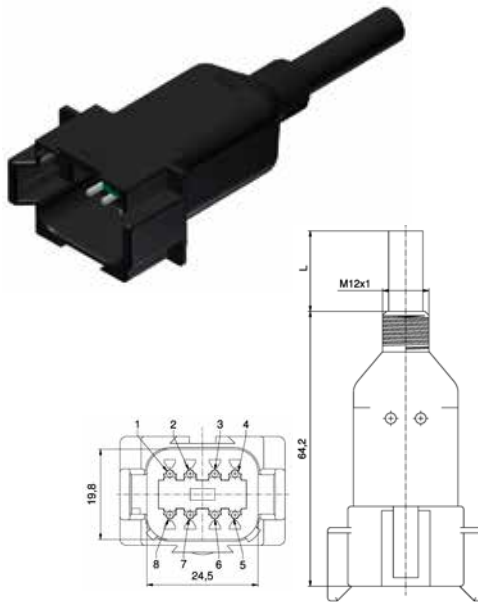
Contact assignment

No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Cable quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
8	10 - 230 V AC/ DC	6	2	PUR	8 x 0,75	DT04-8AP-A/K1/0.75/2m	55-00529
			5			DT04-8AP-A/K1/0.75/5m	55-00530
			10			DT04-8AP-A/K1/0.75/10m	55-00531



Without LED-protection circuit, M12 thread

8	10 - 230 V AC/ DC	6	2	PUR	8 x 0,75	DT04-8APG-A/K1/0.75/2m	55-00535
			5			DT04-8APG-A/K1/0.75/5m	55-00536
			10			DT04-8APG-A/K1/0.75/10m	55-00537

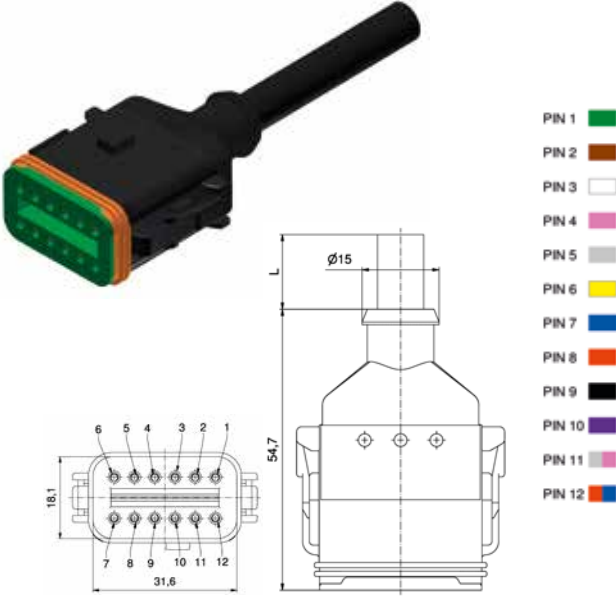


**VALVE CONNECTORS**  
DT-Series

**DT06, 12-pos.**  
Socket contacts

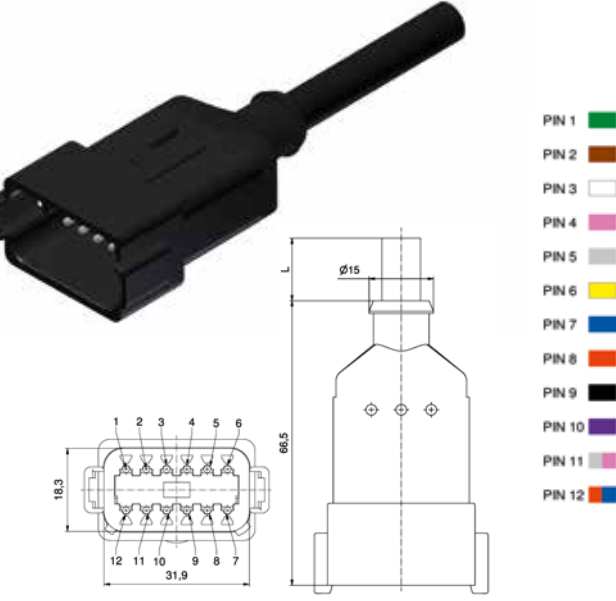
Without LED-protection circuit

Contact assignment

		No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Cable quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
		12	10 - 230 V AC/ DC	5	2	PUR	12 x 0,75	DT06-12AS-A/K1/0.75/2m	55-00553
					5			DT06-12AS-A/K1/0.75/5m	55-00554
					10			DT06-12AS-A/K1/0.75/10m	55-00555

**DT04, 12-pos.**  
Plug contacts

Without LED-protection circuit

		12	10 - 230 V AC/ DC	5	2	PUR	12 x 0,75	DT04-12AP-A/K1/0.75/2m	55-00556
					5			DT04-12AP-A/K1/0.75/5m	55-00557
					10			DT04-12AP-A/K1/0.75/10m	55-00558

SECTION 3

# VALVE CONNECTORS SUPERSEAL-SERIE



ES

---





# VALVE CONNECTORS SUPERSEAL-SERIES

## Nomenclature

VSS1.5 - 2 S L - A / K1 / 0.75 / 2m

**Type**  
VSS1.5

**No of pos.**

- 2 = 2-pos.
- 3 = 3-pos.
- 4 = 4-pos.
- 5 = 5-pos.
- 6 = 6-pos.

**Type**

- S = Socket contacts/Plug housing
- P = Plug contacts/Cap housing

**Cable style**

- = Cable
- L = Single wire (only 2-pos. version)

**Termination protection tube**

- = Standard

**Protection circuit**

- A = without protection circuit

**Material cable**

- K1 = TPU, black, highflexible, halogenfree, UL
  - A1 = PVC single wire
- other types upon request

**Wire cross section**

- 0.75 = 0.75 mm<sup>2</sup>
- other wire cross section upon request

**Cable length**

- 2m = 2 meter
- 5m = 5 meter
- 10m = 10 meter


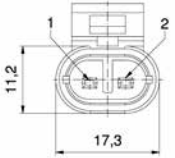
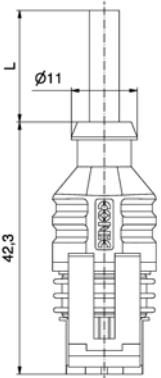

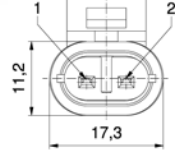
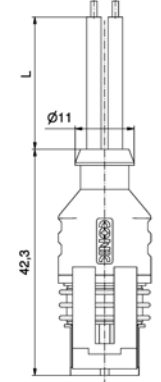

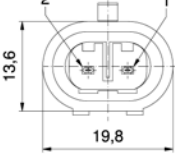
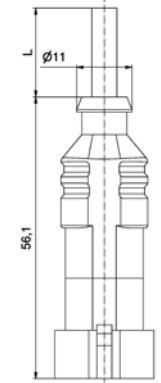

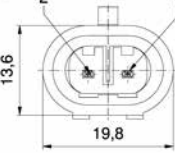
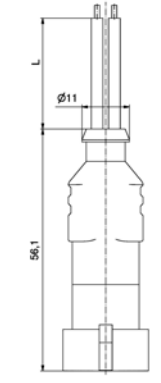
# VALVE CONNECTORS SUPERSEAL-SERIES

## Product specification

<b>Basic material</b>	
Contact	Copper alloy
Contact plating	Sn
Contact carrier	PA 6.6 GF
Overmould	TPU, UL94, black
Sealing	Silicone
<b>Technical Data</b>	
Rated voltage	max. 24 V DC
Current rating	8 A at 40 °C [2-, 3-pos.] 7 A at 40 °C [4-, 5-pos.] 6 A at 40 °C [6-pos.]
Degree of protection	IP67 / IP69K in mated condition
Temperature range connectors	-40 °C to +85 °C
Temperature range cable	Fixed installation: -40 °C to +80 °C Flexible installation: -25 °C to +80 °C
Temperature range single wire	Fixed installation: -40 °C to +105 °C Flexible installation: -10 °C to +105 °C
Terminal cross section	0.75 mm <sup>2</sup> /AWG 18
Housing	Superseal 1.5, black

**VALVE CONNECTORS**  
Superseal-Series

**VSS 1.5**  
2-pos.


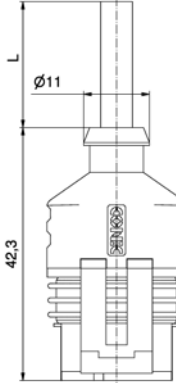

Contact assignment		No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Cable quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
 		2	max. 24 V DC	8	5	PUR	2 x 0,75	VSS1.5-2S-A/K1/0.75/2m	55-00470
								VSS1.5-2S-A/K1/0.75/5m	55-00471
								VSS1.5-2S-A/K1/0.75/10m	55-00472
<b>Socket contacts, single wire</b>									
 		2	max. 24 V DC	8	0.5	PVC	2 x 0,75	VSS1.5-2SL-A/A1/0.75/0,5m	55-00582
					2			VSS1.5-2SL-A/A1/0.75/2m	55-00583
					5			VSS1.5-2SL-A/A1/0.75/5m	55-00584
<b>Plug contacts</b>									
 		2	max. 24 V DC	8	5	PUR	2 x 0,75	VSS1.5-2P-A/K1/0.75/2m	55-00466
								VSS1.5-2P-A/K1/0.75/5m	55-00467
								VSS1.5-2P-A/K1/0.75/10m	55-00468
<b>Plug contacts, single wire</b>									
 		2	max. 24 V DC	8	0.5	PVC	2 x 0,75	VSS1.5-2PL-A/A1/0.75/0,5m	55-00585
					2			VSS1.5-2PL-A/A1/0.75/2m	55-00586
					5			VSS1.5-2PL-A/A1/0.75/5m	55-00587

**VALVE CONNECTORS**  
Superseal-Series


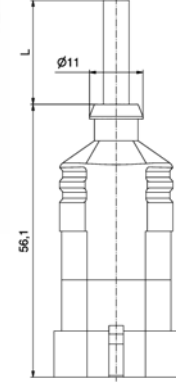

**VSS 1.5**  
3-pos.

Socket contacts

Contact assignment


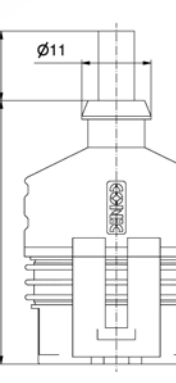

Socket contacts		Contact assignment		No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Cable quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
			3	max. 24 V DC	8	5	PUR	3 x 0,75	VSS1.5-3S-A/K1/0.75/2m	55-00478	
									VSS1.5-3S-A/K1/0.75/5m	55-00479	
									VSS1.5-3S-A/K1/0.75/10m	55-00480	

Plug contacts

			3	max. 24 V DC	8	5	PUR	3 x 0,75	VSS1.5-3P-A/K1/0.75/2m	55-00474
									VSS1.5-3P-A/K1/0.75/5m	55-00475
									VSS1.5-3P-A/K1/0.75/10m	55-00476

**VSS 1.5**  
4-pos.

Socket contacts


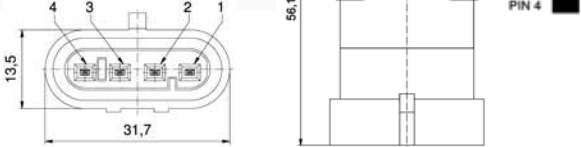
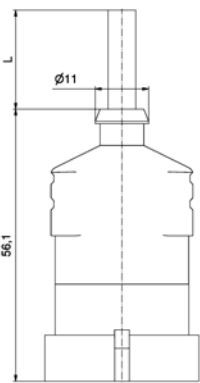
			4	max. 24 V DC	7	5	PUR	4 x 0,75	VSS1.5-4S-A/K1/0.75/2m	55-00595
									VSS1.5-4S-A/K1/0.75/5m	55-00596
									VSS1.5-4S-A/K1/0.75/10m	55-00597

**VALVE CONNECTORS**  
Superseal-Series

**VSS 1.5**  
4-pos.


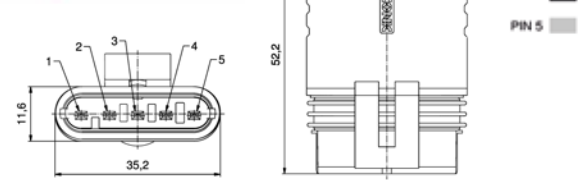
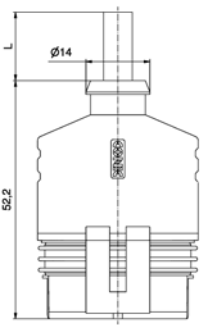
Plug contacts

Contact assignment


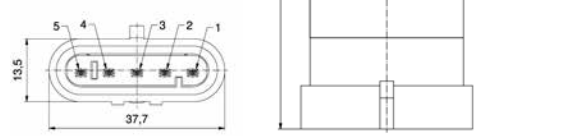
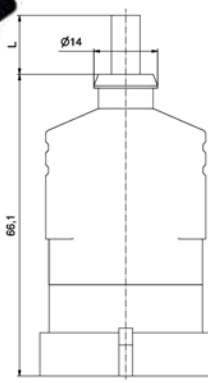
		No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Cable quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
 		4	max. 24 V DC	7	2	PUR	4 x 0,75	VSS1.5-4P-A/K1/0.75/2m	55-00598
					5			VSS1.5-4P-A/K1/0.75/5m	55-00599
					10			VSS1.5-4P-A/K1/0.75/10m	55-00600

**VSS 1.5**  
5-pos.

Socket contacts

 		5	max. 24 V DC	7	2	PUR	5 x 0,75	VSS1.5-5S-A/K1/0.75/2m	55-00641
					5			VSS1.5-5S-A/K1/0.75/5m	55-00642
					10			VSS1.5-5S-A/K1/0.75/10m	55-00643

Plug contacts

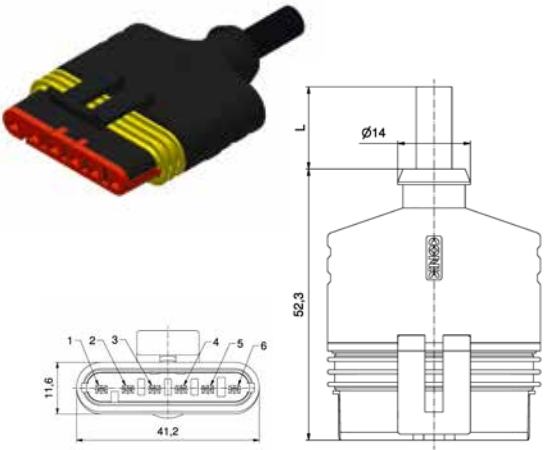
 		5	max. 24 V DC	7	2	PUR	5 x 0,75	VSS1.5-5P-A/K1/0.75/2m	55-00644
					5			VSS1.5-5P-A/K1/0.75/5m	55-00645
					10			VSS1.5-5P-A/K1/0.75/10m	55-00646

**VALVE CONNECTORS**  
Superseal-Series

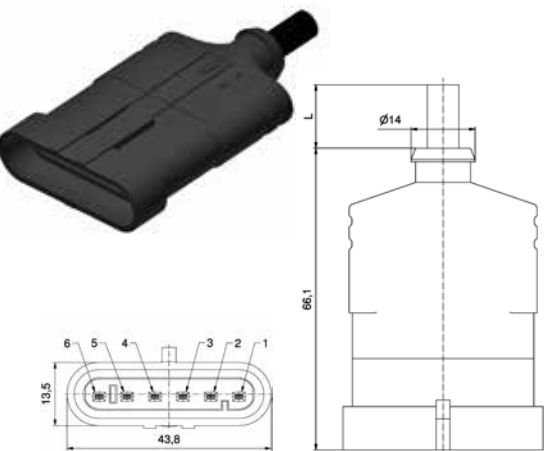
**VSS 1.5**  
6-pos.

Socket contacts

Contact assignment

		No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Cable quality	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
 <p>PIN 1 <span style="color: green;">■</span> PIN 2 <span style="color: brown;">■</span> PIN 3 <span style="color: white;">■</span> PIN 4 <span style="color: pink;">■</span> PIN 5 <span style="color: grey;">■</span> PIN 6 <span style="color: yellow;">■</span></p>	6	max. 24 V DC	6	2	PUR	6 x 0,75	VSS1.5-6S-A/K1/0.75/2m	55-00647	
	5			VSS1.5-6S-A/K1/0.75/5m			55-00648		
	10			VSS1.5-6S-A/K1/0.75/10m			55-00649		

Plug contacts

 <p>PIN 1 <span style="color: green;">■</span> PIN 2 <span style="color: brown;">■</span> PIN 3 <span style="color: white;">■</span> PIN 4 <span style="color: pink;">■</span> PIN 5 <span style="color: grey;">■</span> PIN 6 <span style="color: yellow;">■</span></p>	6	max. 24 V DC	6	2	PUR	6 x 0,75	VSS1.5-6P-A/K1/0.75/2m	55-00650
	5			VSS1.5-6P-A/K1/0.75/5m			55-00651	
	10			VSS1.5-6P-A/K1/0.75/10m			55-00652	

SECTION 4

# M12x1 CONNECTORS OVERMOULDED





## WITH PLASTIC COUPLING SCREW/NUT



# M12x1 CONNECTORS OVERMOULDED WITH PLASTIC COUPLING SCREW/NUT

## Nomenclature

SAL - 12 - R K W K 4 - 2 / K1 / 075

**SAL**  
Sensor Actor Line

**Installation size**  
Coupling element

**Type**  
R = Circular connectors

**Gender**  
K = Female connector  
S = Male connector

**Configuration**  
= Axial  
W = Angled

**Screw locking**  
K = plastic coupling screw/nut

**No. of poles**  
4 = 4-pos.  
5 = 5-pos.

**Cable length**  
xx = Length [m]

**Cable quality**  
K1 = TPU, black, high, flexible, halogenfree, UL

**Wire cross section**  
075 = 0.75 mm<sup>2</sup>

# M12x1 CONNECTORS OVERMOULDED WITH PLASTIC COUPLING SCREW/NUT

## Product specification

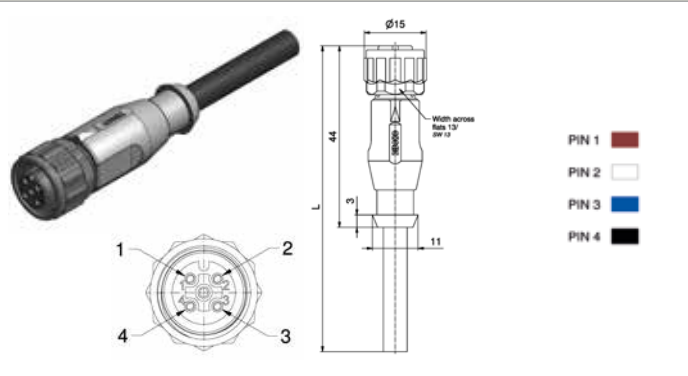
<b>Basic material</b>	
Contact	CuZn
Contact plating	Ni, Au 0.2 gal.
Contact carrier	PA, UL 94 V-0
Overmould	TPU, UL 94 HB, grey
Sealing	FPM
Coupling screw/nut	PA GF, UL 94 HB, black
<b>Technical Data</b>	
Rated voltage	250 V / 60 V
Current rating	4 A
Degree of protection	IP68
Temperature range	-30 °C ... +80 °C
Terminal cross section	0.75 mm <sup>2</sup>
Insulation resistance	> = 100 MΩ
Pollution degree	3/2
Mating cycles	> = 100

**M12X1 CONNECTORS OVERMOULDED**  
Plastic coupling nut

**Female connector**  
axial

TPU, UL, black, Li9Y11Y

Contact assignment



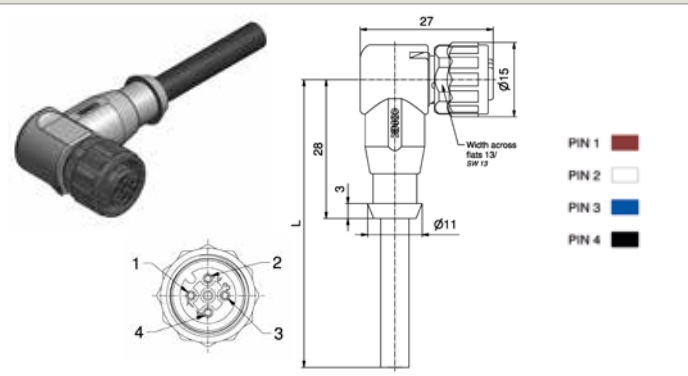
No. of poles	Rated voltage [V]	Current rating [A]	Cable length = L [m]	Wire cross section [mm <sup>2</sup> ]	Additional wire cross sections and double ended variants on request
--------------	-------------------	--------------------	----------------------	---------------------------------------	---

TPU, UL, black, Li9Y11Y					Description	Part No.
-------------------------	--	--	--	--	-------------	----------

	4	250 V	4	2	SAL-12-RKK4-2/K1/075	43-20337
				5	SAL-12-RKK4-5/K1/075	43-20339
				10	SAL-12-RKK4-10/K1/075	43-20340
TPU, UL, black, Li9Y11Y						
	5	60 V	4	2	SAL-12-RKK5.1-2/K1/075	43-20345
				5	SAL-12-RKK5.1-5/K1/075	43-20347
				10	SAL-12-RKK5.1-10/K1/075	43-20348

**Female connector**  
angled

TPU, UL, black, Li9Y11Y



TPU, UL, black, Li9Y11Y					Description	Part No.
-------------------------	--	--	--	--	-------------	----------

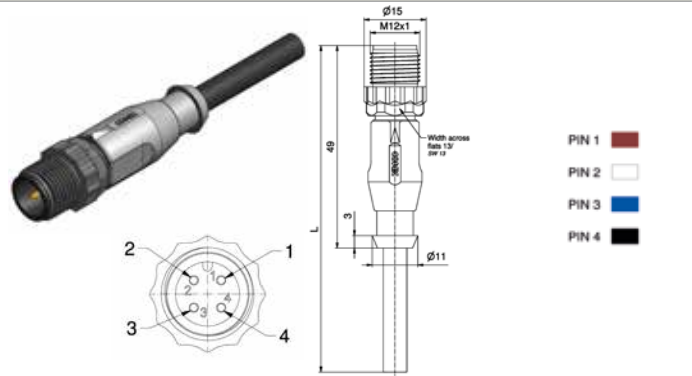
	4	250 V	4	2	SAL-12-RKWK4-2/K1/075	43-20353
				5	SAL-12-RKWK4-5/K1/075	43-20355
				10	SAL-12-RKWK4-10/K1/075	43-20356
TPU, UL, black, Li9Y11Y						
	5	60 V	4	2	SAL-12-RKWK5.1-2/K1/075	43-20361
				5	SAL-12-RKWK5.1-5/K1/075	43-20363
				10	SAL-12-RKWK5.1-10/K1/075	43-20364

**M12X1 CONNECTORS OVERMOULDED**  
Plastic coupling screw

**Male connector**  
axial

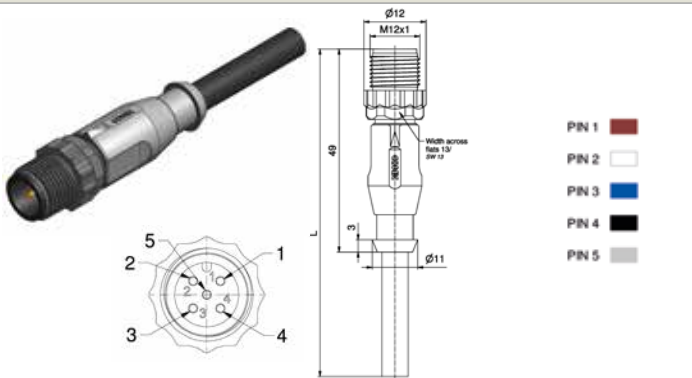
TPU, UL, black, Li9Y11Y

Contact assignment



No. of poles	Rated voltage [A]	Current rating [A]	Cable length = L [m]	Wire cross section [mm <sup>2</sup> ]	Description	Part No.
4	250 V	4	5	0.75	SAL-12-RSK4-2/K1/075	43-20341
					SAL-12-RSK4-5/K1/075	43-20343
					SAL-12-RSK4-10/K1/075	43-20344

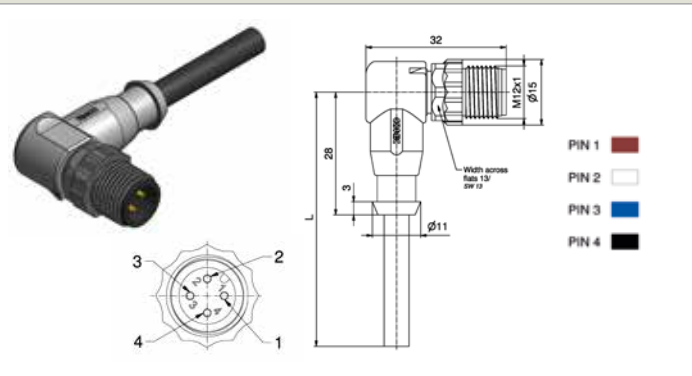
TPU, UL, black, Li9Y11Y



5	60 V	4	5	0.75	SAL-12-RSK5.1-2/K1/075	43-20349
					SAL-12-RSK5.1-5/K1/075	43-20351
					SAL-12-RSK5.1-10/K1/075	43-20352

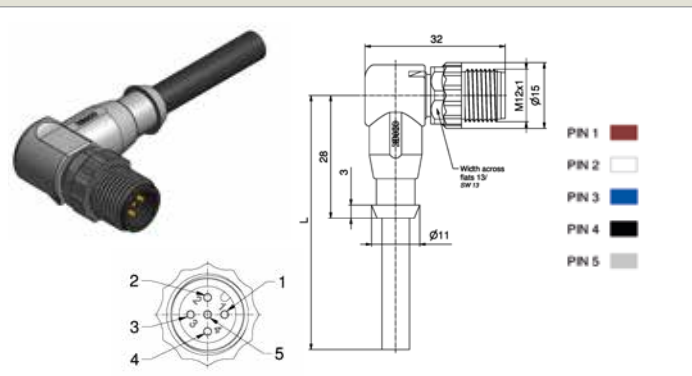
**Male connector**  
angled

TPU, UL, black, Li9Y11Y



4	250 V	4	5	0.75	SAL-12-RSWK4-2/K1/075/A1090	43-20357
					SAL-12-RSWK4-5/K1/075/A1090	43-20359
					SAL-12-RSWK4-10/K1/075/A1090	43-20360

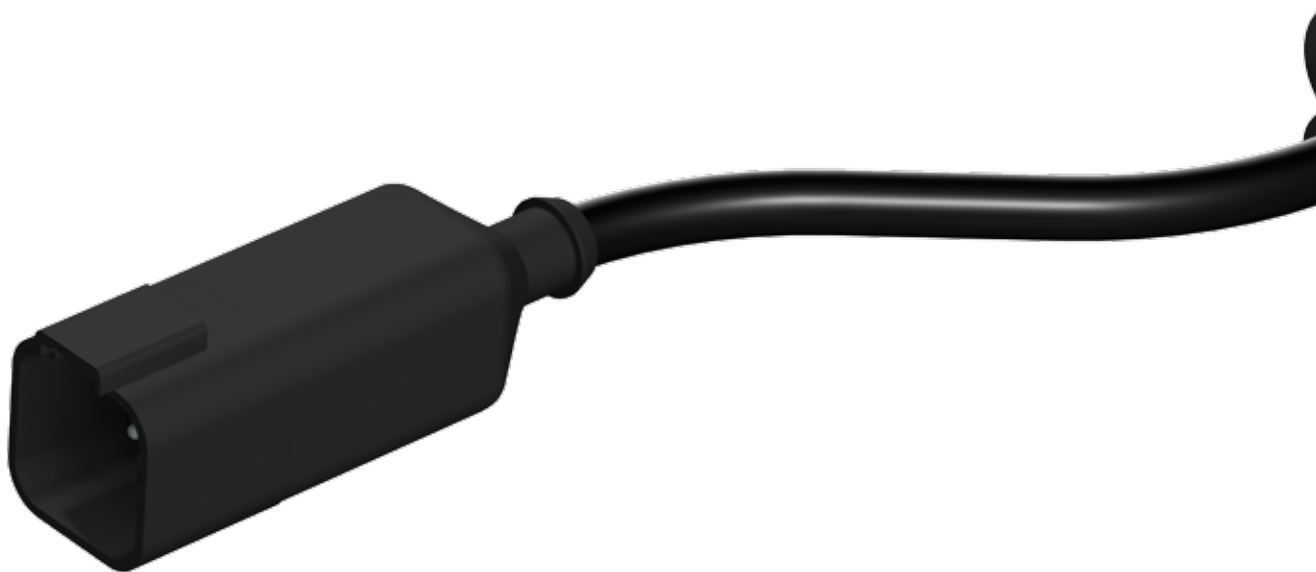
TPU, UL, black, Li9Y11Y

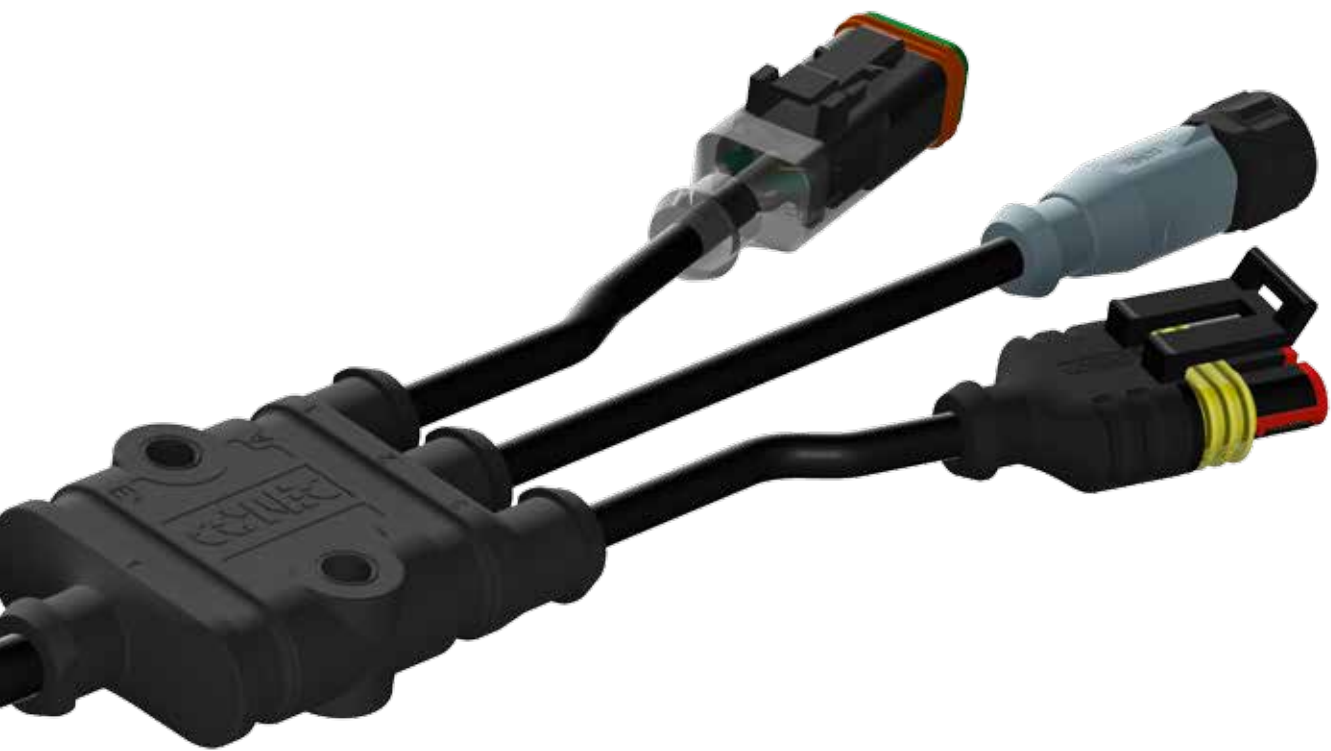


5	60 V	4	5	0.75	SAL-12-RSWK5.1-2/K1/075/A1090	43-20365
					SAL-12-RSWK5.1-5/K1/075/A1090	43-20367
					SAL-12-RSWK5.1-10/K1/075/A1090	43-20368

SECTION 5

# JUNCTION SYSTEM TYPE S, M, L \_\_\_\_\_







## JUNCTION SYSTEM TYPE S, M, L

### Fields of application

In agricultural technology, too, the degree of automation is steadily increasing and hence the need to equip machines with sensors and other individual electrical components.

The new CONEC junction system provides a flexible way to integrate moulded branches/outlets in electrical connection lines such as e.g. cable harnesses. This ensures that the continuous lead sheathing retains its full functional integrity even at the splice site (at the junction system). The junction system is min. IP67-protected, electrically tested in the factory and thus offers a robust, tamper-proof way to electrify machines in a safe way. The PUR moulding provides good resistance for applications in the agricultural industry.

CONEC provides three different sizes of junction systems (S, M and L).



Example: Selection light system










Characteristics	Type S	Type M	Type L
Dimensions (L x W x H mm)	66 x 30 x 15	66 x 40 x 15	76 x 55 x 22
Cable entry	1, 2	1, 2, 3	1
Cable exit	1, 2	1, 2, 3	3, 4

Since the junction system is designed for cable entries and exits, there are almost unlimited possibilities to combine different connector systems. The limits are set by the maximum cable diameter of max. 8 mm for the variants S and M. Variant L is limited for the reception of maximum cable diameters of 17 mm and the cable diameters of the exits of the quadruple type to max. 8 mm and the triple type to max. 13 mm.

Each junction system has two attachment holes with M5 thread for easy and safe installation in the machines. In addition, a fixture to attach the distributor with a cable tie to the entry and exit is integrated in the housing. Thus, the system can be attached at the place of operation easily and securely according to the respective requirements and withstands the harshest conditions.

Due to the flexible design of internal wiring in the junction system, it is also possible to connect an integrated circuit, e.g. an integrated self-restoring fuse in a path in addition to the simple 1:n connection. Possibilities are almost unlimited. Please do not hesitate to contact us about your individual requirements, we can implement them.

## Junction system Type S, M, L Overview

Suitabel series	Input	Output	Suitabel series
 <p>VSS - Series Type: S, M, L</p>	<p>1, 2</p> <p>Type S</p> 	<p>1, 2</p>	 <p>M8 - Series Type: S, M, L</p>
 <p>DT - Series Type: S, M, L</p>	<p>1, 2, 3</p> <p>Type M</p> 	<p>1, 2, 3</p>	 <p>M12 - Series Type: S, M, L</p>
 <p>ISOBUS - Series Type: L</p>	<p>1 (ISOBUS)</p> <p>Type L</p> 	<p>3, 4</p>	 <p>D-SUB - Series Type: S, M, L</p>

Characteristics	Type S	Type M	Type L
Dimensions (L x W x H mm)	66 x 30 x 15	66 x 40 x 15	76 x 55 x 22
Cable entry	1, 2	1, 2, 3	1
Cable exit	1, 2	1, 2, 3	3, 4
Overmould	TPU UL94 V-0	TPU UL94 V-0	TPU UL94 V-0
Cable quality	PUR (0.75 mm <sup>2</sup> )*	PUR (0.75 mm <sup>2</sup> )*	PUR (Hybrid)*
Max. cable diameter entry	8 mm	8 mm	17 mm
Max. cable diameter exit	8 mm	8 mm	13 mm (3 exits) 8 mm (4 exits)
Degree of protection	IP67	IP67	IP67

\* Other cable qualities on request

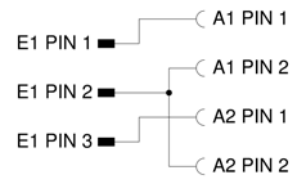
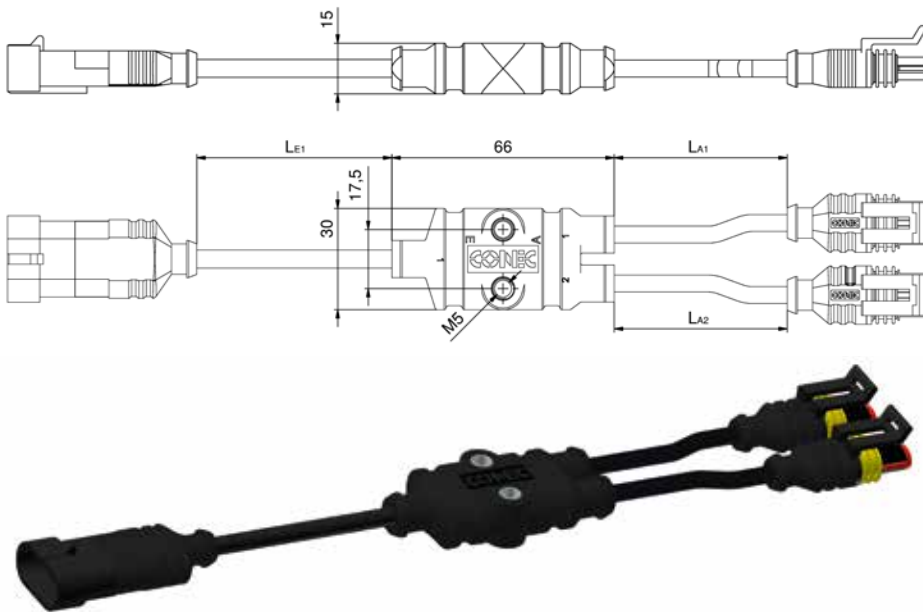
# JUNCTION SYSTEM

## Example

### Type S

1 Entry / 2 Exits

Contact Assignment

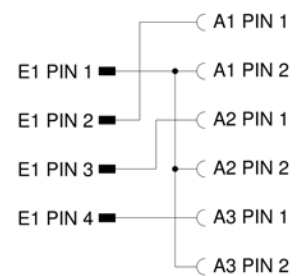
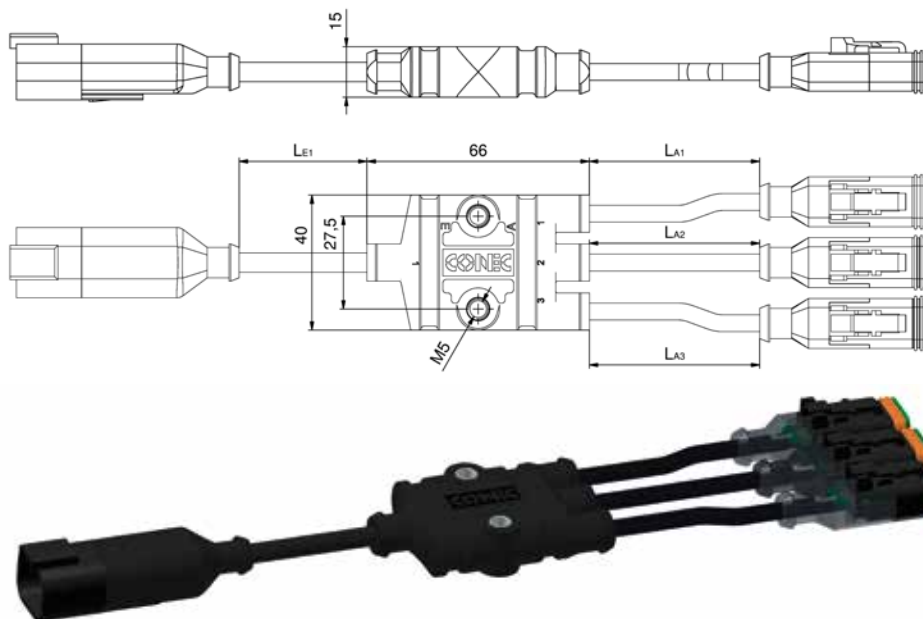


Entry <sub>E1-2</sub>	Type	Length $L_{E1-2}$ [m]	Distribution type	Exit <sub>A1-2</sub>	Type	Length $L_{A1-2}$ [m]	Article
E1	VSS1.5-3P-A	0,6	S	A1	VSS1.5-2S-A	0,6	55-20001
E2	-	-		A2	VSS1.5-2S-A	0,6	

### Type M

1 Entry / 3 Exits

Contact Assignment

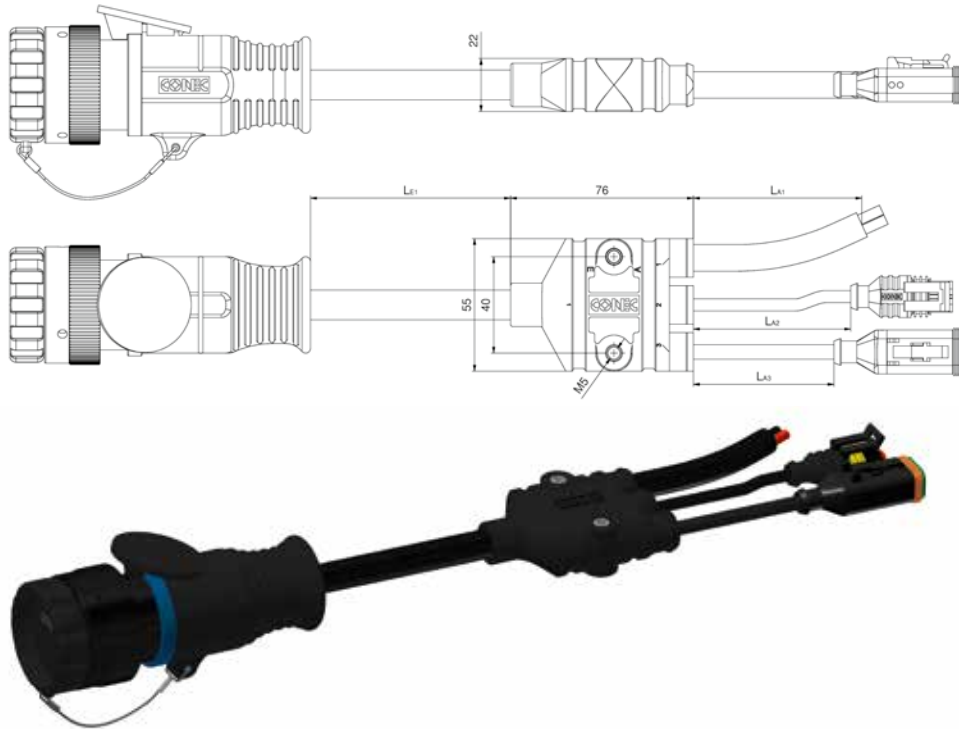


Entry <sub>E1-3</sub>	Type	Length $L_{E1-3}$ [m]	Distribution type	Exit <sub>A1-3</sub>	Type	Length $L_{A1-3}$ [m]	Article
E1	DT04-4P-A	0,6	M	A1	DT06-2S-B	0,6	55-20002
E2	-	-		A2	DT06-2S-B	0,6	
E3	-	-		A3	DT06-2S-B	0,6	

Type L

1 Entry / 3 Exits

Contact Assignment



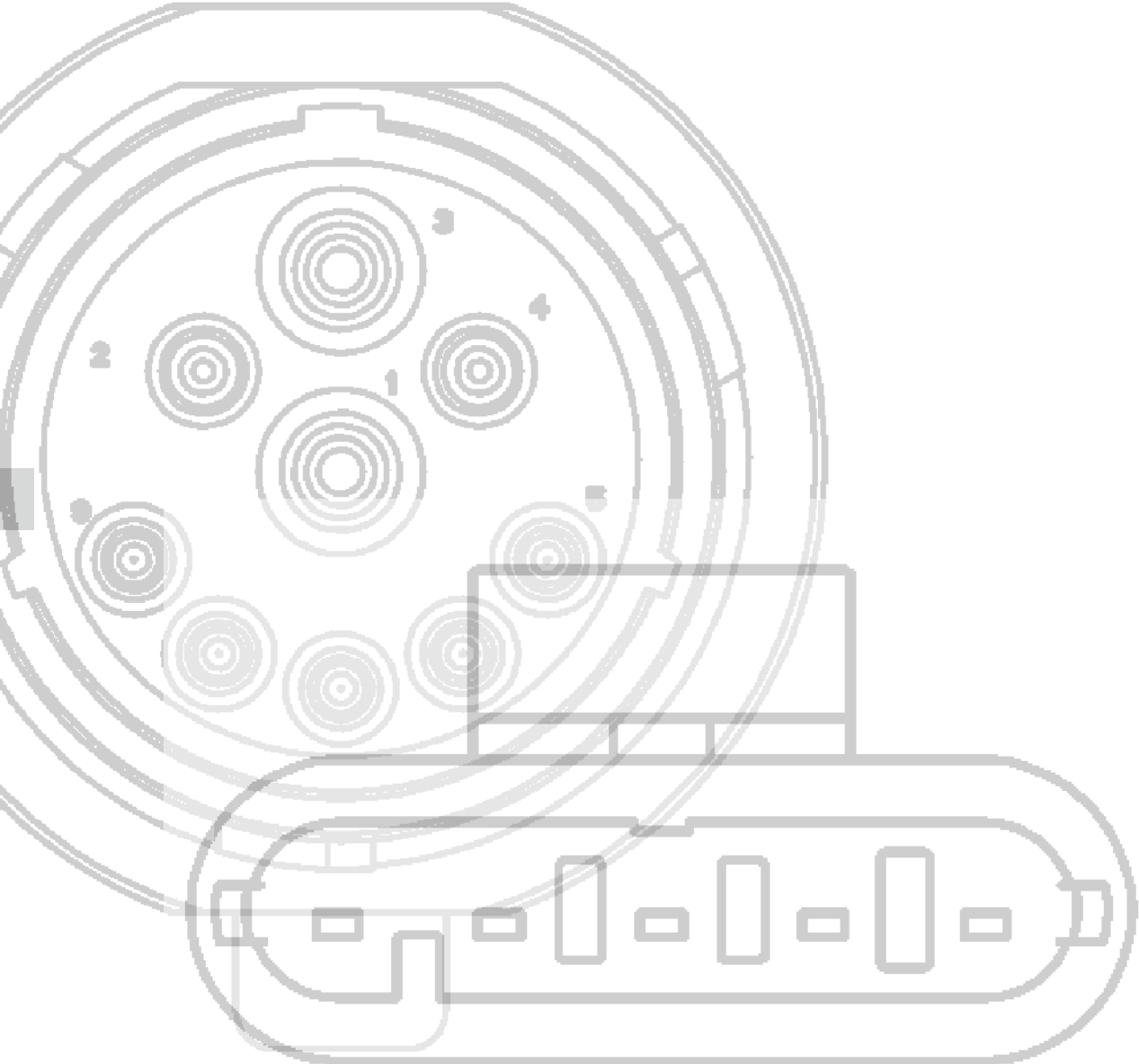
E1 PIN 1 (6mm <sup>2</sup> )	—	■ A1 PIN 1
E1 PIN 2 (2,5mm <sup>2</sup> )	}	■ A1 PIN 2
E1 PIN 3 (6mm <sup>2</sup> )		○ A2 PIN 1
E1 PIN 4 (2,5mm <sup>2</sup> )	}	○ A2 PIN 2
E1 PIN 5 (2,5mm <sup>2</sup> )		
E1 PIN 6 (0,5mm <sup>2</sup> )	—	○ A3 PIN 1
E1 PIN 7 (0,5mm <sup>2</sup> )	—	○ A3 PIN 2
E1 PIN 8 (0,5mm <sup>2</sup> )	—	○ A3 PIN 3
E1 PIN 9 (0,5mm <sup>2</sup> )	—	○ A3 PIN 4

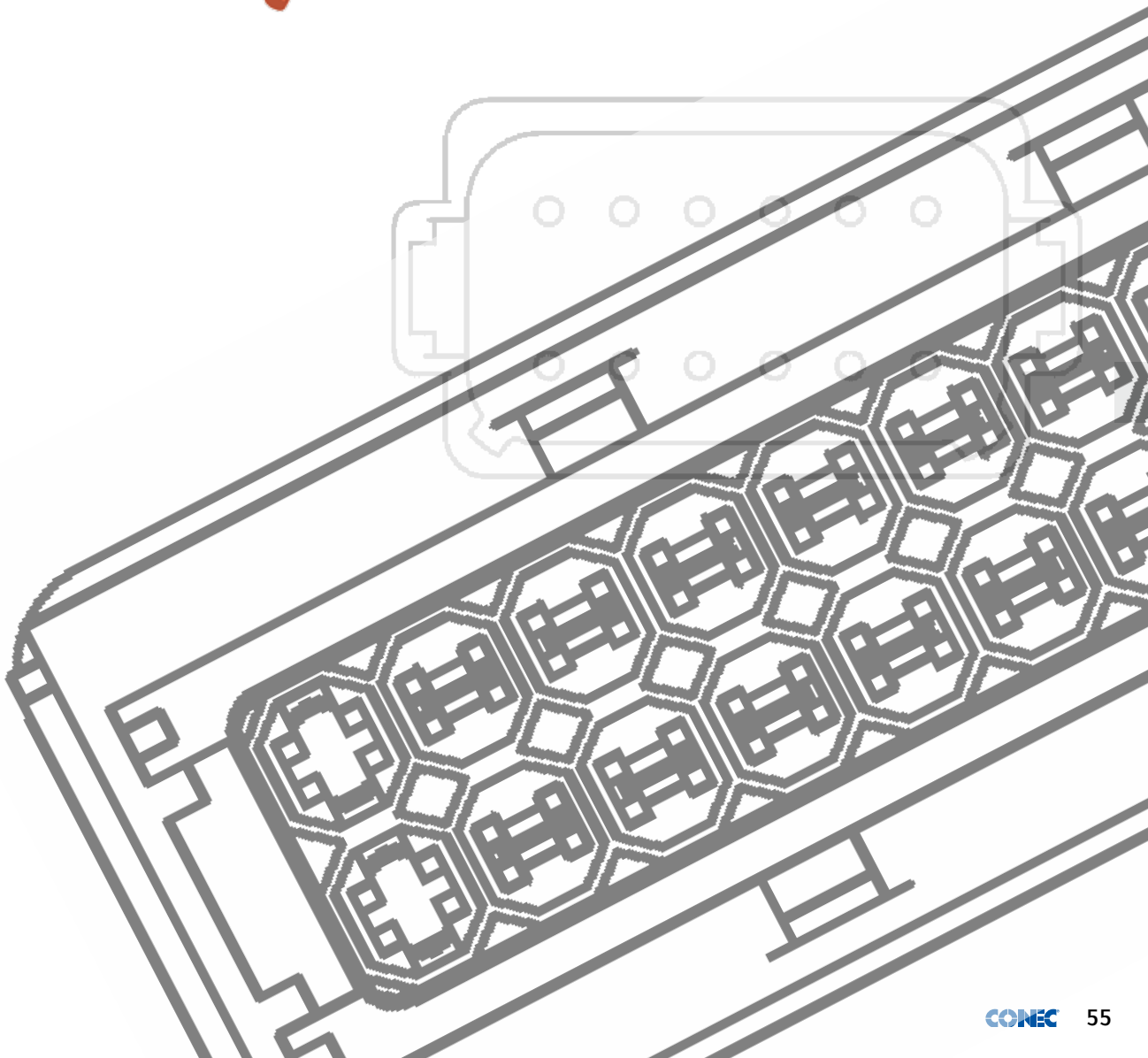
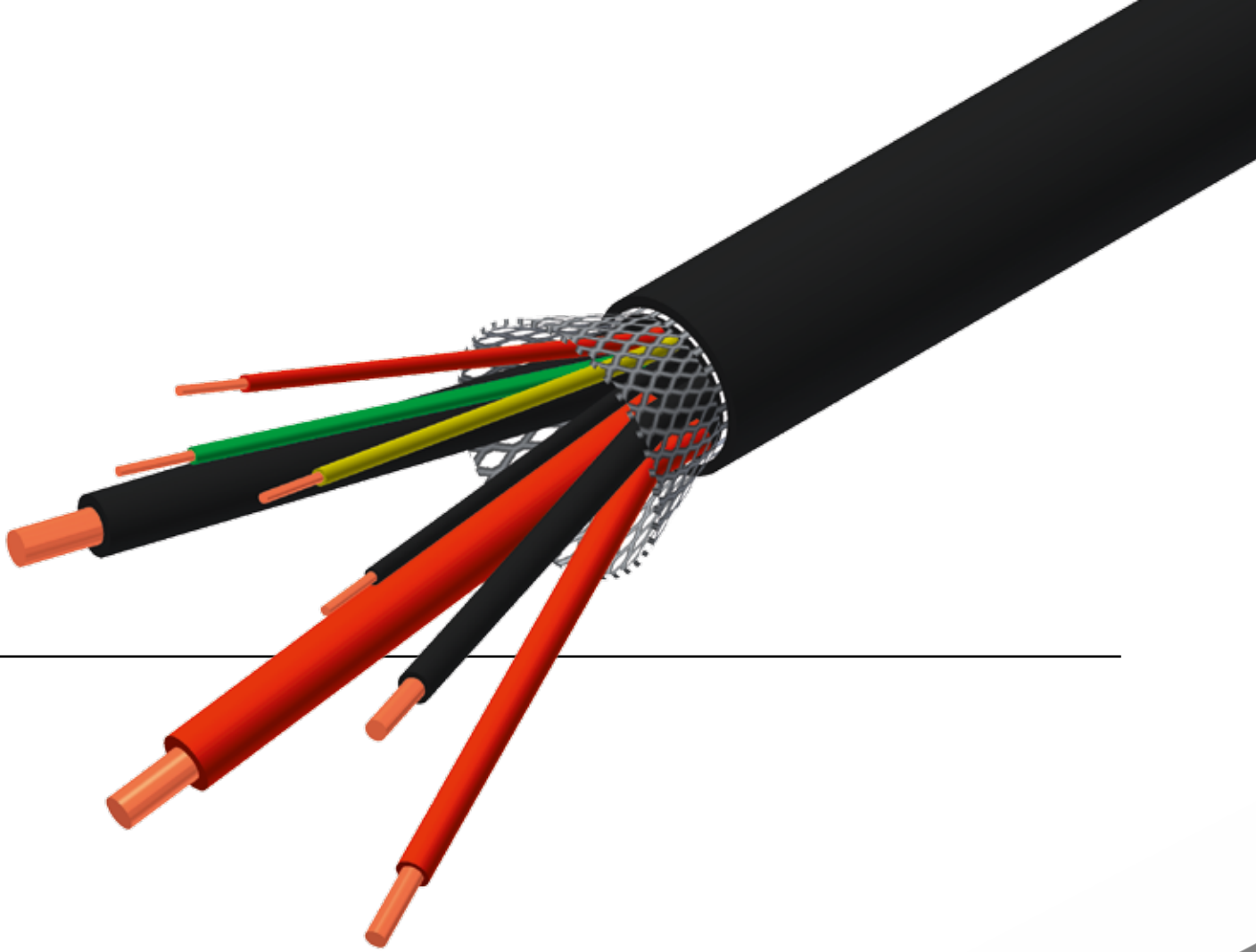
Entry <sub>E1</sub>	Type	Length $L_{E1,3}$ [m]	Distribution type	Exit <sub>A1-4</sub>	Type	Length $L_{A1,4}$ [m]	Article
E1	HDP26	2,5	L	A1	Leitung	1,2	55-20003
				A2	VSS1.5-2S-A	1,0	
				A3	DT06-4S-A	1,0	
				A4	—	—	

SECTION 6

**TECHNICAL INFORMATION**

---





Protection circuits  
2- and 3-pos. DT connectors

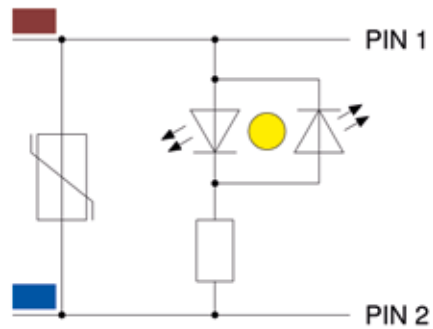
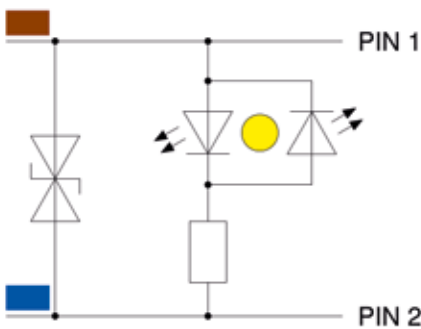
Protection circuits are currently available in 3 different versions.

- 1) Protection circuit with suppressor diode + 2 LEDs (yellow)
- 2) Protection circuit with varistor + 2 LEDs (yellow)
- 3) Protection circuit with freewheeling diode + 1 LED (yellow)

Protection circuits with suppressor diode or varistor:

With suppressor diode:

With varistor:



The protection circuits with suppressor diode and varistor are designed bi-directionally. Thus, they can be operated both with DC and AC voltage regardless of the polarity.

These two circuit versions are used to protect downstream electronic circuits against temporary overvoltages. Such overvoltages may be caused by switching operations in the system and the resulting voltage pulses may be of negative as well as of positive nature. The pulses are limited by the respective protection element to defined voltages above the operating voltage of the protection element.

The protective circuits with varistor and suppressor diode differ in the technical specifications shown below:

	Suppressor diode	Varistor
Response	+	-
Breakthrough area	+	-
Energy absorption	-	+

In general, suppressor diodes respond slightly faster than varistors and in a closer breakthrough area, which is closer to the operating voltage of the protection element breakthrough area. However, varistors are able to absorb higher amounts of energy than suppressor diodes.

As a result of the faster response, suppressor diodes are perfectly suitable in areas of input / output interfaces and sensitive circuits.

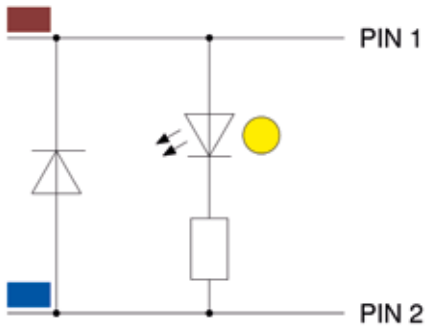
Varistors are preferably used on supply lines and inductive loads.



Protection circuits  
2- and 3-pos. DT connectors

Protective circuit with freewheeling diode:

With freewheeling diode:



In contrast to the aforementioned circuits, the protective circuit with freewheeling diode is unipolar and may be operated with DC voltage only with defined polarity. It serves to protect against negative voltage peaks which may occur when switching off inductive loads. Positive overvoltages, however, are not limited by this circuit.

Summary

Due to the bi-directional design of suppressor diode and varistor, these protection circuits allow for protection against negative as well as against positive overvoltage. However, with these designs, the reverse voltage is higher than the forward voltage of a freewheeling diode.

The forward voltage of a freewheeling diode is below the operating voltage of the system. The overvoltage pulse may be limited with a freewheeling diode to values below 1 VDC, which is not possible with the bi-directional behavior of suppressor diode and varistor.

Typical applications:

Circuit design	
Suppressor diode / Varistor	Freewheeling diode
<ul style="list-style-type: none"> <li>• Drive technology</li> <li>• Engine management</li> <li>• Safety equipment such as airbags and stability control</li> <li>• Entertainment and comfort accessories</li> <li>• Controllers</li> </ul>	<ul style="list-style-type: none"> <li>• Directly on</li> <li>• Relays</li> <li>• Solenoid valves</li> </ul>

**TECHNICAL INFORMATION**  
Cable qualities

**Cable unshielded**  
DT/Superseal Series

TPU, halogenfree, for drag chain applications

**K1** = Li9Y11Y, 300 V, halogenfree, for drag chain applications



Wire cross section [mm <sup>2</sup> ]	Number of wires	Color cable jacket	Certification	Wire colors	Datasheet No.
0.75	2	black	cULus 20549	BN - BU	781- <b>K1</b> 7200
	3		cULus 20549	BN - BU - GN/YE	781- <b>K1</b> 7300
			cULus 20549	BN - BU - BK	781- <b>K1</b> 730G
	4		cULus 20549	BN - BU - BK - GN/YE	781- <b>K1</b> 7400
			cULus 20549	BN - WH - BU - BK	781- <b>K1</b> 740G
	5		cULus 20549	BR - WS - BL - SW - GR	781- <b>K1</b> 7500
			cULus 20549	BR - WS - BL - SW - GR	781- <b>K1</b> 750G
	6		cULus 20549	WS - BR - GN - GE - GR - RS	781- <b>K1</b> 7600
	8		cULus 20549	WS - BR - GN - GE - GR - RS - BL - RT	781- <b>K1</b> 7800
	12		cULus 20549	BN - BU - WH - GN - PK - YE - BK - GY - RD - VT - GY/PK - RD/BU	781- <b>K1</b> 7120

**Hybrid cable shielded**  
ISOBUS

TPU

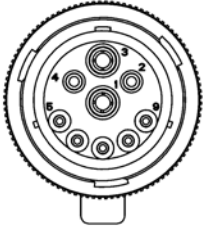


4x0.50 + 2x2.50 + 2x10.00	4x2x2	black	yes	BK - YE - GN - RD - BK - RD - BK - RD	ISO 600P: 781-BS0097
	4x2x2		yes	BK - YE - GN - RD - BK - RD - BK - RD	ISO 1000P: 781-BS0098

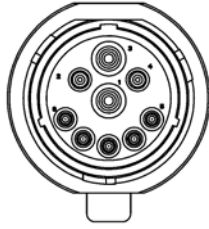
## TECHNICAL INFORMATION

### Overview pin assignment

#### ISOBUS - Connectors overmoulded, female/male

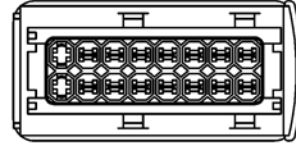


Female  
9-pos.



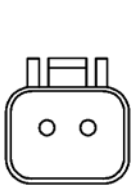
Male  
9-pos.

#### JPT - Connector

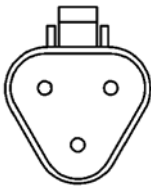


Female  
16-pos.

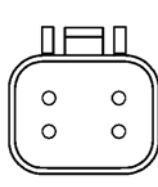
#### DT-Series 06 (Housing for socket contacts)



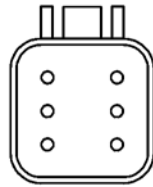
2-pos.



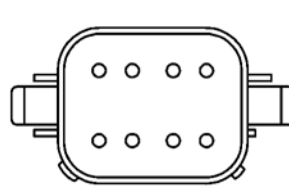
3-pos.



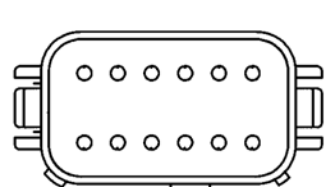
4-pos.



6-pos.



8-pos.  
A-coded



12-pos.  
A-coded

#### DT-Series 04 (Housing for plug contacts)



2-pos.



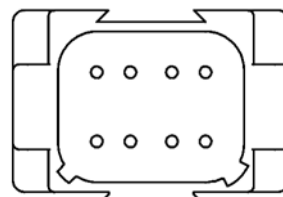
3-pos.



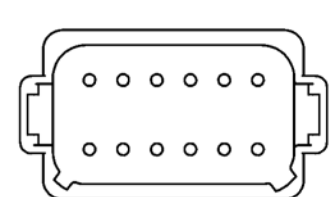
4-pos.



6-pos.



8-pos.  
A-coded

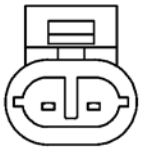


12-pos.  
A-coded

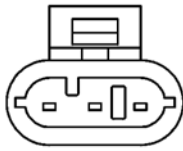
## TECNICAL INFORMATION

### Overview pin assignment

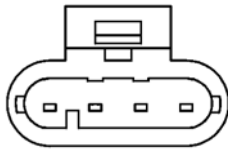
#### Superseal-series VSS1.5 (Housing for socket contacts)



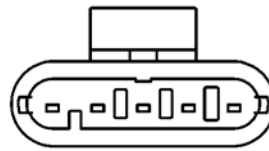
2-pos.



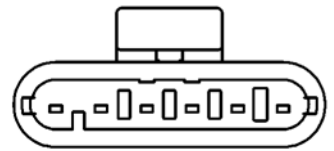
3-pos.



4-pos.

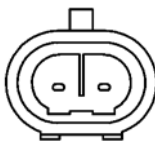


5-pos.

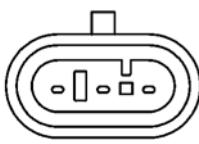


6-pos.

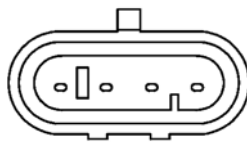
#### Superseal-series VSS1.5 (Housing for plug contacts)



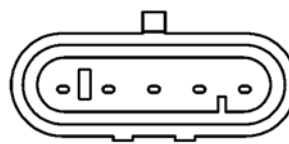
2-pos.



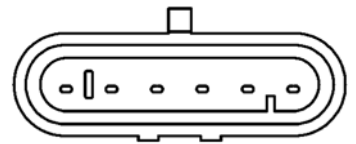
3-pos.



4-pos.

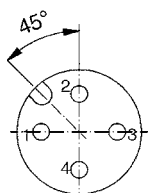


5-pos.

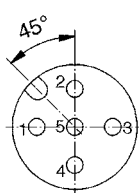


6-pos.

#### 12x1 connectors overmoulded, female, plastic coupling nut

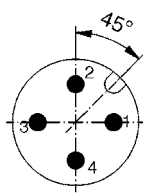


Female connector  
4-pos.

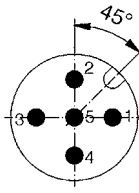


Female connector  
4-pos.

#### 12x1 connectors overmoulded, male, plastic coupling screw



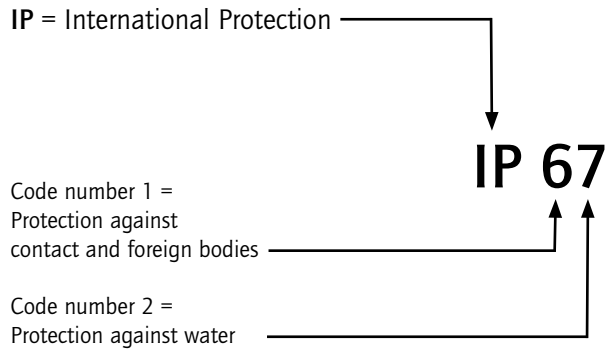
Male connector  
5-pos.



Male connector  
5-pos.

Protection classes

Norm IEC 60529



For safety reasons, connectors have to be protected against external influences like dust, foreign objects, direct contact, moisture and water. For industrial connectors, this protection is provided by their housings with their latching devices and sealed cable entries. The protection classes are also called IP Codes. The abbreviation IP stands for "ingress protection". Standard IEC 60529 specifies and divides the degree of protection into several classes.

The protection classes refer to protection against contact and ingress of solid foreign objects and dust (indicated by the first code digit of the IP Code) as well as against damaging ingress of water (indicated by the second code digit of the IP Code)

PROTECTION CLASS OVERVIEW

First code digit	Protection against ingress of foreign objects Protection against contact	Second code digit	Protection against water	Examples
0	Not protected	0	Not protected	
1	Protection against ingress of solid foreign objects with diameters > than 50 mm Protected against access with the back of the hand	1	Protection against vertically dripping water	
2	Protection against ingress of solid foreign objects with diameters > than 12.5 mm Protected against access with a finger	2	Protection against dripping water with 15° inclination	
3	Protection against ingress of solid foreign objects with diameters > than 2.5 mm Protected against access with a tool	3	Protection against spray water inclined up to 60°	
4	Protection against ingress of solid foreign objects with diameters > than 1 mm Protected against access with a wire	4	Protection against splashing water	
5	Protected against dust in harmful quantities Complete protection against contact	5	Protection against jet water	
6	Dust-proof Complete protection against contact	6	Protection against powerful jets of water	
		7	Protection against temporary immersion (max. water depth 1 m)	
		8	Protection against constant immersion beyond 1 m An additionally indicated number stands for the maximum immersion depth in meters.	
		9K	Protection against very strong jets of water, e.g. from high-pressure steam jet cleaners for vehicles.	

### Electrotechnical information

#### Voltage grading of connectors (insulation coordination)

Clearances and creepage distances are the base of voltage grading of connectors.

The following standard apply for this:

##### IEC 60664-1

Insulation coordination for equipment within low-voltage systems

Insulation coordination comprises the selection of the electrical insulation performances of an equipment (e.g. connector), taking into account the expected use and its environment.

Explanation of some terms:

##### – Rated voltage

The value of voltage assigned by the manufacturer to the connector and to which operation and performance characteristics are referred.

##### – Rated impulse voltage

The value of an impulse withstand voltage assigned by the manufacturer to the connector characterising the specified withstand capability of its insulation against transient overvoltages.

##### – Clearance

The shortest distance in air between two conductive parts.

##### – Creepage distance

The shortest distance along the surface of the insulating material between two conductive parts.

##### – Pollution degree

The expected pollution around the equipment (e.g. connector) was established in the standard in four degrees:

###### Pollution degree 1

No pollution or only dry, non-conductive pollution occurs. The pollution has no influence.

Examples: The inside of electrical measuring instruments, electronic measuring devices.

###### Pollution degree 2

Only non-conductive pollution occurs. Except that occasionally a temporary conductivity caused by condensation is to be expected.

Examples: Household appliances, installation material, lamps, power supplies of office equipment.

###### Pollution degree 3

Conductive pollution occurs or dry non-conductive pollution occurs which becomes conductive due to condensation which is to be expected.

Examples: Electrical equipment of machine tools and processing machines, low voltage switches at machine tools.

###### Pollution degree 4

The pollution generates persistent conductivity caused by conductive dust or by rain or snow.

Examples: Equipment on wagon roofs and beneath wagons at electrical locomotives, rail cars, trolley busses. Equipment at electrical locomotives underground.

###### Additional remarks:

If connectors being defined for pollution degree 1 and overvoltage categorie 1 are applied for other conditions (higher pollution degree and higher overvoltage category), voltage levels reduce correspondingly. But the connectors can be used without any problems at reduced maximum voltages.

**It has to be noted that for a connector with a degree of protection of at least IP54 the parts inside the enclosure may be dimensioned for a lower pollution degree. This also applies to mated connectors whose enclosure is ensured through the connector housing and which may only be disengaged for test and maintenance purposes.**

### Electrotechnical information

#### Voltage grading of connectors (insulation coordination)

##### – Overvoltage categories

The standard has divided the possible overvoltages into four categories. The three categories which relate to connectors are shortly described below:

##### **Overvoltage category I**

Equipment (e.g. connectors) intended for the use in applications or parts of installations in which no overvoltage can occur.

Examples are low voltage equipments.

##### **Overvoltage category II**

Equipment (e.g. connectors) intended for the use in installations or parts of it, in which lightning overvoltages do not need to be considered, however switching overvoltages generated by the equipment. Examples are household appliances.

##### **Overvoltage category III**

Equipment (e.g. connectors) intended for the use in installations or parts of it in which lightning overvoltages do not need to be considered, however switching overvoltages generated by the equipment, and for cases where the reliability and the availability of the equipment (e.g. connectors) or its dependent circuits are subject to special requirements. Examples are protecting means, switches and sockets.

##### –Material groups

For the dimensioning of the creepage distance, the tracking formation of the insulating material used by the manufacturer has to be considered. The materials are separated into three groups according to their CTI values (Comparative Tracking Index):

Material group I  $600 \leq \text{CTI}$

Material group II  $400 \leq \text{CTI} < 600$

Material group III  $175 \leq \text{CTI} < 400$

**Electrotechnical information**

**American Wire Gauges**

The American Wire Gauge AWG is also found in various areas of the automation industry use .  
The following table is used for the conversion of AWG Supports at in mm<sup>2</sup> .

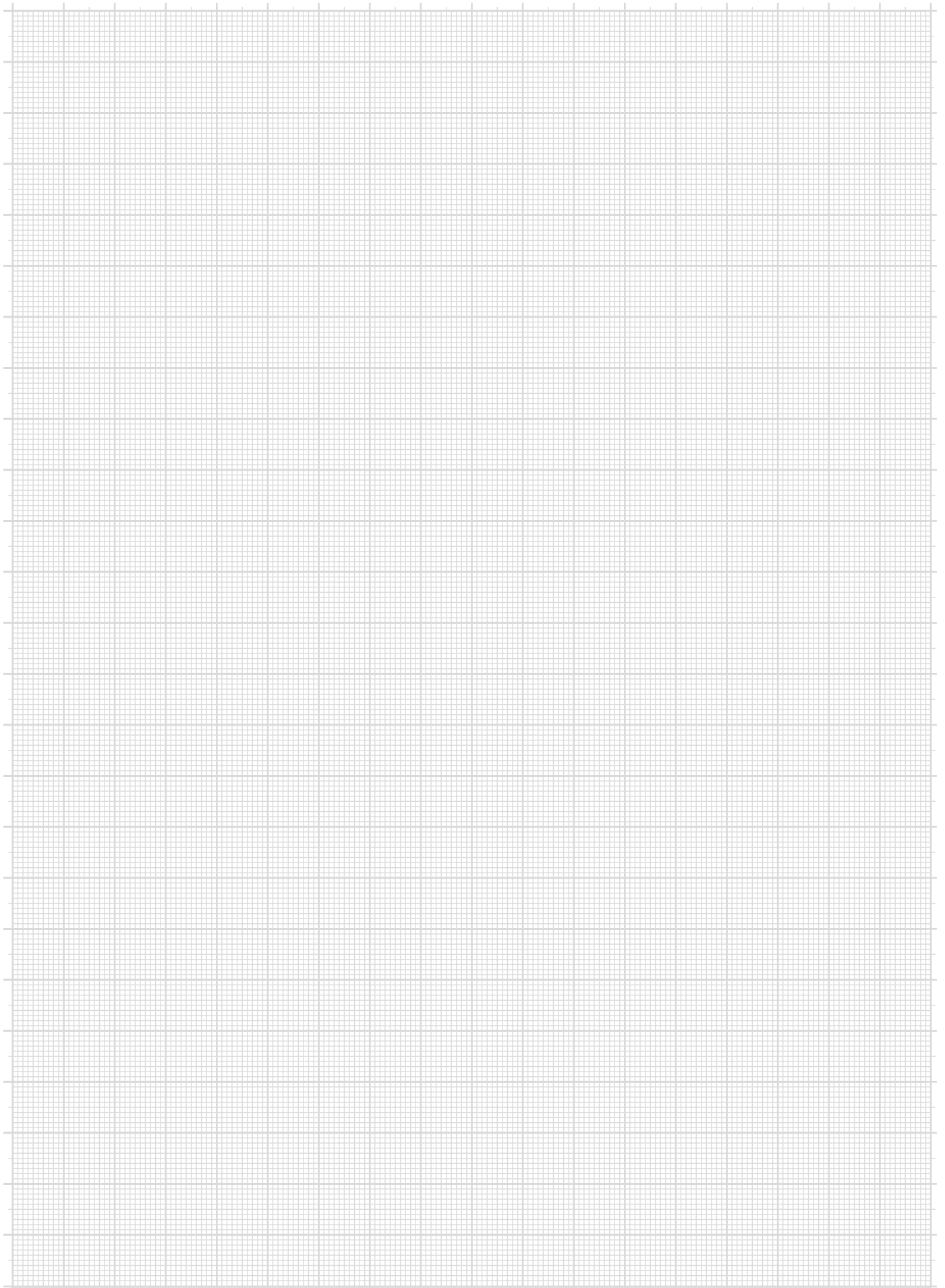
AWG	Wire composition [mm]	Wire-Ø [mm]	Wire cross section [mm <sup>2</sup> ]
30	1 x 0.25	0.25	0.05
	7 x 0.10	0.36	0.06
28	1 x 0.32	0.32	0.08
	7 x 0.13	0.38	0.09
26	1 x 0.40	0.4	0.13
	7 x 0.16	0.48	0.14
	19 x 0.10	0.51	0.15
24	1 x 0.51	0.51	0.21
	7 x 0.20	0.61	0.22
	19 x 0.13	0.64	0.25
22	1 x 0.51	0.64	0.33
	7 x 0.20	0.76	0.34
	19 x 0.13	0.81	0.38
20	1 x 0.81	0.81	0.52
	7 x 0.32	0.97	0.56
	19 x 0.20	1.02	0.6
18	1 x 1.02	1.02	0.82
	19 x 0.25	1.27	0.93
16	19 x 0.29	1.44	1.25
14	19 x 0.36	1.8	1.93
12	19 x 0.46	2.29	3.16
10	19 x 0.40	3.1	4.65

Note: Due to different Core structure at the same AWG creates a different.

**Construction and dimension for standard copper cable according IEC 60228**

Wire cross section [mm <sup>2</sup> ]	Wire composition [mm]	Wire-Ø [mm]
0.09	12 x 0.10	0.5
0.14	18 x 0.10	0.5
0.25	14 x 0.16	0.7
	32 x 0.10	0.7
0.34	19 x 0.16	0.8
	42 x 0.10	0.9
0.5	7 x 0.30	1
	16 x 0.21	1.1
	28 x 0.16	1.1
0.75	7 x 0.37	1.2
	24 x 0.21	1.2
	42 x 0.16	1.3
1.0	7 x 0.43	1.4
	32 x 0.21	1.4
	56 x 0.16	1.5
1.5	7 x 0.52	1.6
	30 x 0.26	1.7
	84 x 0.16	1.8
2.5	7 x 0.67	2.2
	50 x 0.26	2.3
	140 x 0.16	2.3
4.0	7 x 0.85	2.7
	56 x 0.31	2.8
	224 x 0.16	2.9





## SECTION 7

# ADDITIONAL PRODUCT CATEGORIES





## ADDITIONAL CONEC PRODUCT CATEGORIES

### CONEC SuperCon Power Hybrid connectors



#### Details

- Size: B12, B17, B23
- Coding: 1, 2, 3
- Number of poles power: 2, 3, 4, 5, 6,
- Number of poles data: 4 (transmission according IEC11801 Cat5e)
- Configuration: Connector axial overmoulded, Connector axial field attachable, sockets axial
- Bayonet locking
- Degree of protection: IP67

#### Benefits

- Space-saving by transmitting data and power with one connector
- Quick and secure connection by bayonet locking
- Application-related cable qualities
- Compact and robust design

### Circular connectors overmoulded



#### Details

- Size: M8x1, M12x1, 7/8", Rund24
- Coding: A, B, C, D, L, P, S, T, X
- Number of poles: 3, 4, 5, 6, 8, 12, 2+PE, 3+PE, 4+FE, 4+PE, 6+PE
- Configuration: axial or angled, shielded or unshielded
- Optional with LED
- Termination: screw-, snap-, srew-/snap-termination
- Degree of protection: IP67

#### Benefits

- Robust design with minimum space requirements
- Mating can be controlled with torque wrench
- Vibration proof screw lock
- Application-related cable qualities

## ADDITIONAL CONEC PRODUCT CATEGORIES

### Circular connectors field attachable



#### Details

- Size: M8x1, M12x1, 7/8", Rund24
- Coding: A, B, D, P, X
- Number of poles: 3, 4, 5, 8, 2+PE, 3+PE, 4+PE, 6+PE
- Configuration: axial or angled, shielded or unshielded
- Termination: solder-, clamp-, screw-, crimp termination
- Degree of protection: IP67

#### Benefits

- Mating can be controlled with torque wrench (M8, M12)
- Easy field attachable without special tools
- M12x1 cable cross section 1.5 mm<sup>2</sup>
- Vibration proof screw lock

#### Sockets



#### Details

- Size: M8x1, M12x1, 7/8"
- Coding: A, B, D, L, P, S, T, X
- Number of poles: 3, 4, 5, 6, 8, 12, 2+PE, 3+PE, 4+PE, 4+PE
- Male socket, female socket
- Configuration: axial or angled
- Degree of protection: IP67
- Field attachable crimp version
- Assembly: Protection cap

#### Benefits

- Front and back panel mounting
- Colored contact insulators to avoid wrong plugging
- High number of poles with minimum space requirements
- Direct circuit board mounting
- Protection of unused interfaces



## ADDITIONAL CONEC PRODUCT CATEGORIES

### Sockets SMT/THR



#### Details

- Size: M8x1 SMT/THR, M12x1 SMT
- Coding: A, B, D, X
- Number of poles: 3, 4, 5, 8
- Male socket, female socket
- Configuration: axial or angled, shielded or unshielded
- Degree of protection: IP67

#### Benefits

- Front and back panel mounting
- Automated assembly (SMT)
- High number of poles with minimum space requirements
- Low forces on the board
- Low contact resistance on the shielding
- Large tolerance compensation between board and housing

### Panel plugs



#### Details

- Size: M8x1, M12x1
- Coding: A
- Number of poles: 3, 4, 5, 8
- With LED preparation
- Configuration: axial
- Housing configuration: Plastic, metal, metal/plastic transparent
- Termination: solder-, print termination
- Degree of protection: IP67

#### Benefits

- Easy installation in housing by pushing in
- Low installation height
- Various connection possibilities

## ADDITIONAL CONEC PRODUCT CATEGORIES

### Power connectors



#### Details

- Size: M12x1, 7/8", Rund24
- Coding: L, S, T
- Number of poles: 3, 4, 2+PE, 3+PE, 4+PE, 4+FE, 6+PE
- Configuration: axial or angled
- Degree of protection: IP67

#### Benefits

- Transmission of high currents on minimum space requirements
- Different codings
- Mating can be controlled with torque wrench
- Defined tightening torque
- Polarity reversal prevented with coded insulators

### High Temperature/Food & Beverage connectors



#### Details

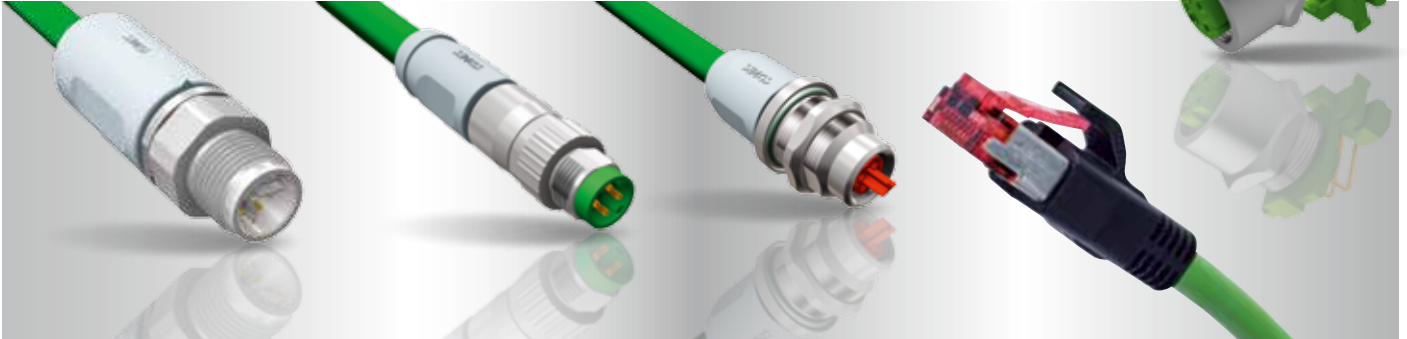
- Size: M8x1, M12x1
- Coding: A
- Number of poles: 3, 4, 5
- Female connector, male connector
- Optional with LED
- Temperature-resistant up to 125 °C (HT)
- Degree of protection: IP65 (HT), IP67, IP69K (F&B)

#### Benefits

- Resistance to commercial aggressive cleaning agents
- Robust design with minimum space requirements
- Mating can be controlled with torque wrench
- Vibration proof screw lock
- Use in constantly high ambient temperatures

## ADDITIONAL CONEC PRODUCT CATEGORIES

### Connectors for BUS-Systems



#### Details

- Size: M8x1, M12x1, 7/8", RJ45
- Coding: A, B, D, P, X
- Number of poles: 4, 5, 8
- Profibus DP
- DeviceNet
- Industrial Ethernet 100 MHz
- EtherCAT P
- 10 Gigabit Ethernet
- Configuration: axial or angled

#### Benefits

- Robust design with minimum space requirements
- Vibration proof screw lock
- Application-related coloring of cables and contact insulators

### Junction systems



#### Details

- Size: M8x1, M12x1, 7/8"
- Number of poles: 3, 4, 5, 8, 4+PE
- 1:1 wiring
- Signal distribution
- Degree of protection: IP67
- Assembly: retaining clip, protection caps

#### Benefits

- Robust design with minimum space requirements
- Signals and power are transmitted by standardized plug systems
- Back-to-back assembly with retaining clip
- Protection of unused interfaces



## ADDITIONAL CONEC PRODUCT CATEGORIES

### IP67 Power Bayonet



#### Details

- No. of poles: 2, 2+PE
- Receptacle male and female
- Cable connector male and female
- Degree of protection: IP67

#### Benefits

- Use in harsh environments
- Easy and secure locking by bayonet lock
- Cable to cable connection available
- High current carrying capability

### IP67 Mini USB, USB 2.0, USB 3.0 connectors



#### Details

- Type: USB 3.0 Type A
- Type: USB 2.0 Type A, Mini USB Type A
- Housing: plastic, plastic metallized, zinc die-cast
- Locking: bayonet, M28
- Termination: soldering, PCB
- Adapters
- Degree of protection: IP20 (patch cord), IP67

#### Benefits

- Use in harsh environments
- Easy and secure locking by bayonet lock
- Front- and back panel mounting
- UV resistant material
- USB Memory Stick 2 GB integrated into protection cap
- Light-weight versions ideal for portable devices

## ADDITIONAL CONEC PRODUCT CATEGORIES

### IP67 RJ45 Industrial Ethernet connectors



#### Details

- Housing: plastic, plastic metallized, zinc die-cast
- Locking: bayonet, M28
- Termination: soldering, IDC, screw
- UTP Cat 5e, STP Cat 5e, S/STP Cat 6A
- Degree of protection: IP20 (patch cord) IP67

#### Benefits

- Use in harsh environments
- Easy and secure locking by bayonet lock
- Front- and back panel mounting
- UV resistant material for outdoor use
- Light-weight versions
- Colored interface encoding available

### IP67 Fiber Optic LC Duplex



#### Details

- Housing: plastic, plastic metallized, zinc die-cast
- Locking: bayonet
- Single Mode, Multi Mode, APC Single Mode
- Front- and back panel mounting
- Degree of protection: IP67

#### Benefits

- Use in harsh environments
- Easy and secure locking by bayonet lock
- Extended temperature range
- Interference-free safe data transmission
- Cost efficiency by integrated IP67 protection

## ADDITIONAL CONEC PRODUCT CATEGORIES

### D-SUB connectors standard/high density/combo



#### Details

- Shell: steel tin plated, brass tin plated, stainless steel
- Termination: solder pin straight/angled, press-fit straight, solder cup, wire wrap, crimp
- Quality class: up to quality class 1

#### Benefits

- One interface for power, RF and control signals
- Space saving
- Cost saving – all in one connectors
- Low magnetic versions
- Customer-specific solutions possible
- Quick and easy locking and unlocking (SnapLock)

### D-SUB filter standard/high density/combo



#### Details

- Shell: steel tin plated, brass tin plated
- Termination: solder pin, solder cup
- Filter type: C-Filter, LC-Filter, Pi-Filter
- High DWV

#### Benefits

- Filtering directly at interface
- Can be used without PCB Redesign
- Filter-adapter for retrofitting existing systems
- Up to 3-step low-pass filters
- Selective filtering
- Mixed capacitance
- Low magnetic versions
- Space saving on PCB

## ADDITIONAL CONEC PRODUCT CATEGORIES

### D-SUB hoods



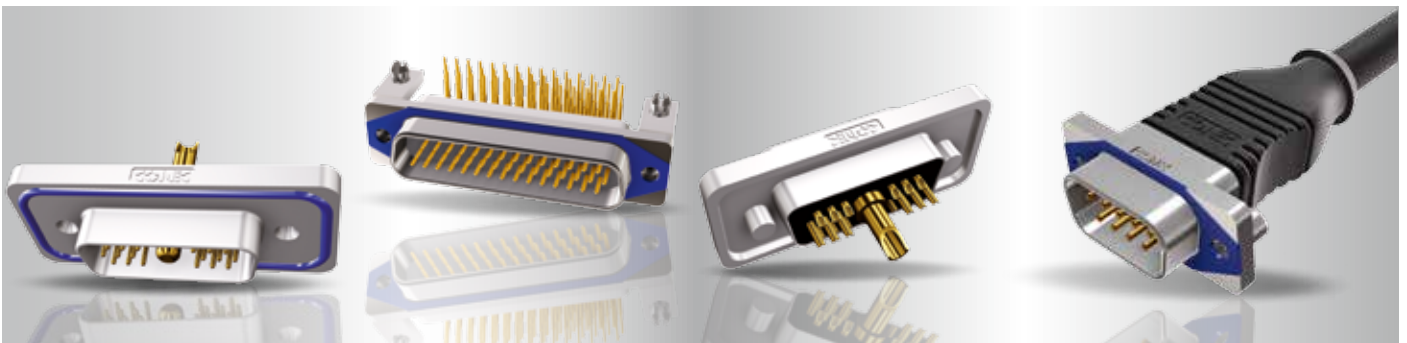
#### Details

- Shell size: 1-5
- Shell: plastic, plastic metallized, metal
- Cable entry: straight, lateral, multiple
- CONEC SnapLock version

#### Benefits

- Large space for combination D-SUB
- Screw latching or slide locking
- Quick and easy locking (CONEC SnapLock)
- Touch protection of termination side
- For round and flat ribbon cables

### IP67 D-SUB connectors standard/ high density/combination



#### Details

- Shell: brass tin plated, stainless steel
- One-piece shell (Solid Body): zinc die-cast
- One-piece shell (CONEC SlimCon): zinc die-cast, small installation space requirements
- Termination: solder pin straight/angled, solder cup
- Degree of protection: IP67

#### Benefits

- Use in harsh environments
- Front- and back panel mounting
- Increased corrosion protection
- Precision machined contacts

## ADDITIONAL CONEC PRODUCT CATEGORIES

### IP67 D-SUB filter standard/high density



#### Details

- Shell: brass tin plated
- Termination: solder pin, solder cup
- Filter type: C-Filter up to 1300 pF (D-SUB) up to 1000 pF (HD-SUB)
- Degree of protection: IP67

#### Benefits

- Filtering directly at interface
- Can be used without PCB redesign
- Use in harsh environments
- Selective filtering
- Mixed capacitance
- Low magnetic versions
- Space saving on PCB

### IP67 D-SUB hoods



#### Details

- Shell size: 1-5
- Shell: plastic, plastic metallized
- Degree of protection: IP67

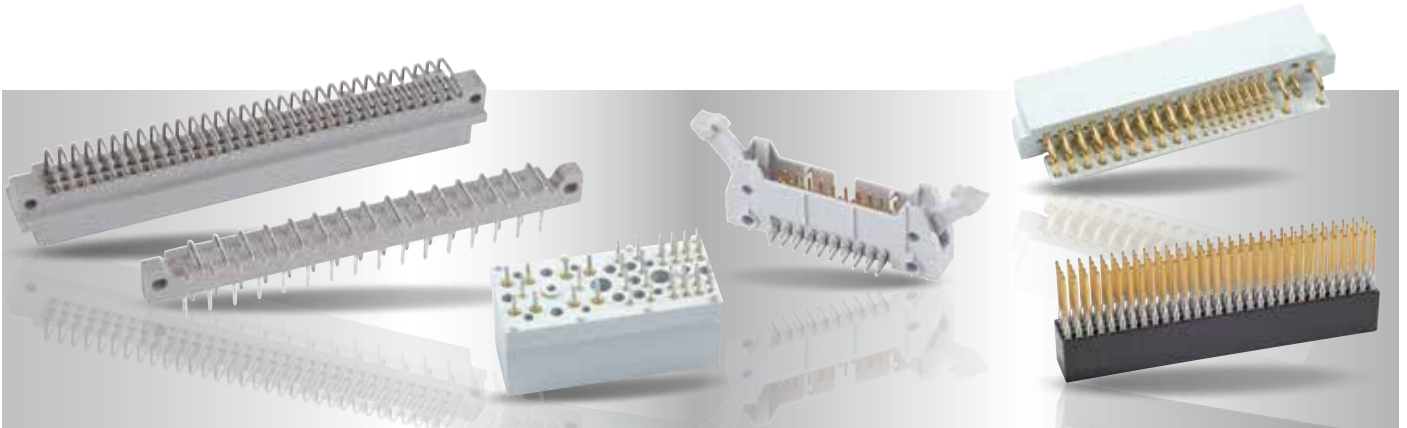
#### Benefits

- Compact design
- Integrated cable gland
- Large space for combination D-SUB
- With shield connection
- UV resistant material for use outdoors
- Assembly without special tools



## ADDITIONAL CONEC PRODUCT CATEGORIES

### PCB connectors



### Overview

- DIN EN 60603-2
- DIN 41617
- AdvancedTCA
- Flat cable connector
- CompactPCI
- PC104/PC104Plus

### Customized products



### Many things are possible

Are you looking for application-specific solutions?

Please contact us – our expert team will support you from the product concept up to optimised serial production.

- Special interconnect solutions to customer specifications
- Prototypes and small series production batches
- Connectors with increased IP ratings for harsh environments
- Enclosure technology for industrial use

## PART NUMBER INDEX

### Numeric

Part number	Page	Part number	Page	Part number	Page	Part number	Page
43-20337	46	55-00466	38	55-00564	21	55-00760	18
43-20339	46	55-00467	38	55-00565	21	55-00761	18
43-20340	46	55-00468	38	55-00566	21	55-00762	18
43-20341	47	55-00470	38	55-00567	21	55-00763	18
43-20343	47	55-00471	38	55-00568	21	55-00764	18
43-20344	47	55-00472	38	55-00569	21	55-00765	18
43-20345	46	55-00474	39	55-00576	23	55-00772	24
43-20347	46	55-00475	39	55-00577	23	55-00773	24
43-20348	46	55-00476	39	55-00578	23	55-00774	24
43-20349	47	55-00478	39	55-00579	23	55-00775	24
43-20351	47	55-00479	39	55-00580	23	55-00776	24
43-20352	47	55-00480	39	55-00581	23	55-00777	24
43-20353	46	55-00482	20	55-00582	38	55-10001	10
43-20355	46	55-00483	20	55-00583	38	55-10002	10
43-20356	46	55-00487	27	55-00584	38	55-10003	10
43-20357	47	55-00488	27	55-00585	38	55-10004	10
43-20359	47	55-00489	27	55-00586	38	55-10005	10
43-20360	47	55-00490	28	55-00587	38	55-10006	10
43-20361	46	55-00491	28	55-00595	39	55-10007	10
43-20363	46	55-00492	28	55-00596	39	55-10008	10
43-20364	46	55-00495	27	55-00597	39	55-10009	10
43-20365	47	55-00496	27	55-00598	40	55-10010	10
43-20367	47	55-00497	27	55-00599	40	55-10011	10
43-20368	47	55-00498	28	55-00600	40	55-10012	10
55-00376	18	55-00499	28	55-00641	40	55-10018	10
55-00377	18	55-00500	28	55-00642	40	55-10021	10
55-00378	18	55-00501	29	55-00643	40	55-10022	10
55-00379	18	55-00502	29	55-00644	40	55-10023	11
55-00380	18	55-00503	29	55-00645	40	55-10024	11
55-00381	18	55-00504	29	55-00646	40	55-10025	11
55-00388	19	55-00505	29	55-00647	41	55-10026	11
55-00389	19	55-00506	29	55-00648	41	55-10027	11
55-00390	19	55-00507	30	55-00649	41	55-10028	11
55-00391	19	55-00508	30	55-00650	41	55-10029	11
55-00392	19	55-00509	30	55-00651	41	55-10030	11
55-00393	19	55-00510	30	55-00652	41	55-10031	11
55-00411	24	55-00511	30	55-00687	18	55-10032	11
55-00412	24	55-00512	30	55-00688	18	55-10033	11
55-00413	24	55-00526	31	55-00689	18	55-10034	11
55-00414	24	55-00527	31	55-00690	18	55-10035	12
55-00415	24	55-00528	31	55-00691	18	55-10036	12
55-00416	24	55-00529	32	55-00692	18	55-10037	12
55-00417	25	55-00530	32	55-00700	18	55-10038	12
55-00418	25	55-00531	32	55-00701	18	55-10039	12
55-00419	25	55-00532	31	55-00702	18	55-10040	12
55-00420	25	55-00533	31	55-00703	18	55-10041	12
55-00421	25	55-00534	31	55-00704	18	55-10042	12
55-00422	25	55-00535	32	55-00705	18	55-10043	12
55-00429	26	55-00536	32	55-00720	24	55-10044	12
55-00430	26	55-00537	32	55-00721	24	55-10045	12
55-00431	26	55-00553	33	55-00722	24	55-10046	12
55-00432	26	55-00554	33	55-00723	24	55-10047	10
55-00433	26	55-00555	33	55-00724	24	55-10048	10
55-00434	26	55-00556	33	55-00725	24	55-10049	10
55-00448	22	55-00557	33	55-00751	24	55-10051	12
55-00449	22	55-00558	33	55-00752	24	55-10052	12
55-00450	22	55-00560	20	55-00753	24	55-10053	12
55-00451	22	55-00561	20	55-00754	24	55-20001	52
55-00452	22	55-00562	20	55-00755	24	55-20002	52
55-00453	22	55-00563	20	55-00756	24	55-20003	53

**CONEC**

Elektronische Bauelemente GmbH  
Ostenfeldmark 16  
59557 Lippstadt  
Deutschland

Tel. +49 2941 765-0  
Fax +49 2941 76565  
E-Mail [info@conec.de](mailto:info@conec.de)  
[www.conec.de](http://www.conec.de)



**CONEC Corporation**  
125 Sun Pac Blvd.  
Brampton Ontario  
Canada L6S 5Z6  
Tel. +1 905 790 2200  
Fax +1 905 790 2201  
E-Mail [info@conec.com](mailto:info@conec.com)



**CONEC**  
343 Technology Drive  
Garner, NC, USA 27529  
Tel. +1 919 460 8800  
Fax +1 919 460 0141  
E-Mail [info@conec.com](mailto:info@conec.com)



**CONEC (UK) Limited**  
Suite 23  
Thatcham House  
Turner's Drive  
Thatcham  
Berkshire RG19 4QD  
Tel. +44 1635 36929  
E-Mail [info@conec.co.uk](mailto:info@conec.co.uk)



**CONEC Polska Sp. zo.o**  
ul.Szmaragdowa 10  
52-215 Wroclaw  
Tel. +48 71 374 40 45  
Fax +48 71 374 40 49  
E-Mail [info@conec.pl](mailto:info@conec.pl)



**CONEC s.r.o.**  
Loucka 137  
76325 Ujezd  
Czech Republic  
Tel. +420 577 350 132  
Fax +420 577 350 134  
E-Mail [info@conec.cz](mailto:info@conec.cz)



**CONEC France SARL**  
202 Rue des Chevreuils  
30320 Poulx  
Tel. +33 9 75267217  
Fax +33 4 66570916  
E-Mail [info@conec.fr](mailto:info@conec.fr)



**CONEC (Shanghai)**  
Int. Trading Co., Ltd.  
Rm. 718 Yongding Bldg.  
No. 3388 Gong He Xin Rd.  
200436 Shanghai  
Tel. +86 21 66300930  
Fax +86 21 66300911  
E-Mail [info@conec.cn](mailto:info@conec.cn)