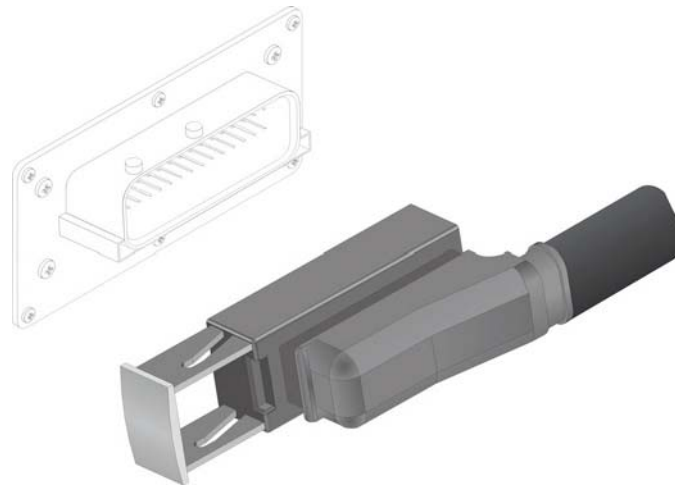




SMARTDRIVE™ EASY MAIN CONNECTOR



Commercial name	KIT-CONNECTEUR-MAIN-SD-EASY
-----------------	-----------------------------

Part number	A02809D
-------------	---------

Features

Manufacturer	AMP		
Components	Power	Connector:	1-967281-1
		Protective cover:	0-965643-1
		7 female contacts:	929937-3
	Signals	7 insulants:	828905-1
		6 stoppers:	828922-1
		40 female contacts:	962876-1
		40 insulants:	963530-1
		36 stoppers:	963531-1
Cable section	For power pins	1.5 to 2.5 mm ² [0.0023 to 0.004 in ²]	
	For signal pins	0.5 to 1.0 mm ² [0.0008 to 0.0015 in ²]	
Insulation diameter	For power pins	2.2 to 3.0 mm ² [0.0034 to 0.0046 in ²]	
	For signal pins	1.4 to 1.9 mm ² [0.0021 to 0.003 in ²]	
Operating temperature	-40°C to 85°C [-40°F to 185°F]		
Ingress protection	IP 68		

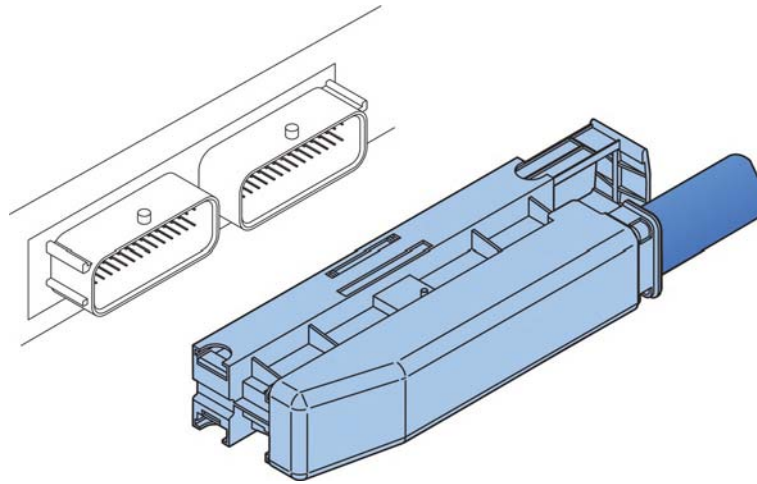
Mounting tools for the connector

AMP reference

Crimpers	539635-1
Chuck-jaw for power spindles	539737-2
Chuck-jaw for control spindles	539651-2
Extractor for power spindles	1-1579007-6
Extractor for control spindles	726534-1



SMARTDRIVE PREMIER, MASTER, OFFROAD MAIN CONNECTOR



Commercial name	MAIN SD CONNECTOR KIT
Part number	007142203P

Features

Manufacturer	FCI	
Componants	Connectors:	PPI0001258
	Locking cam:	211A567007
	Protective cover:	211A560008
	60 Pins:	211CC2S1120
	60 Stoppers: (when a pin is not used)	F180100
Cable section	0.35 to 0.75 mm ² [0.0005 to 0.0011 in ²]	
Insulation diameter	1.4 to 2.7 mm [0.05 to 0.11 in]	
Operating temperature	-40°C to +125°C [-40°F to 257°F]	
Ingress protection	IP 68	

Electronic control units

Displays

Electronic components

Connectors

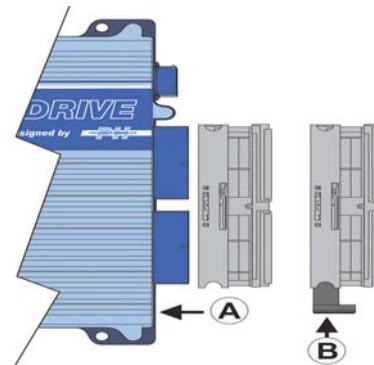
Cables



Fitting the main connector

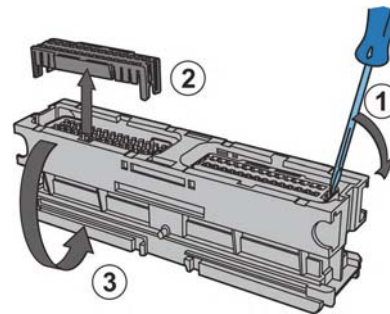
Locking device position

- A. Place the black unit on the ECU.
Note its position and separate it from the ECU.
- B. Insert the purple locking device into the unit from the bottom to the top and push until it clicks.
The cable will have to be positioned on the locking device side.

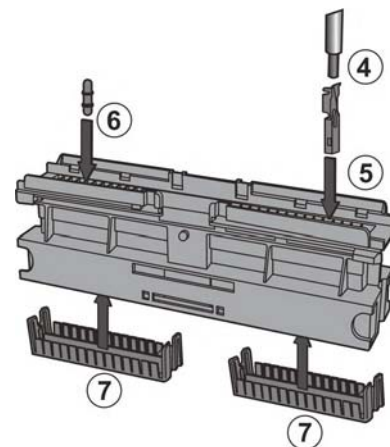


Fitting the connector

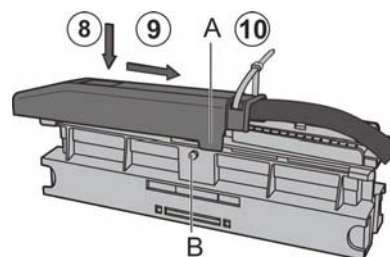
1. Unclip the 2 yellow supports.
2. Remove these supports.
3. Turn the unit over.



4. Strip the wire over 4 mm.
Crimp each conductor on its lug using pliers FCI211S005.
5. Insert each lug into the connector as shown in the electrical circuit diagram in the appendix.
In case of error, use extraction tool 210S048 to remove the lug.
6. Insert the green plugs into the free ports of the connector.
7. Clip on the 2 yellow supports.

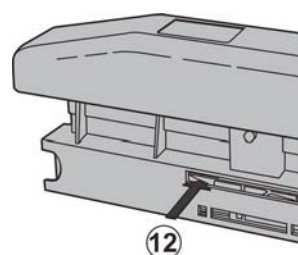


8. Position the cover and lower it.
The cover tab (A) must be on the right of the unit tab (B).
9. Lock it by pulling on it until there is a click.
10. Secure the cable using a cable grip.



Removing the locking device

12. To remove the purple locking device, press as shown.
13. Partially pull out the locking device, press as shown.
14. Repeat point 12 on the other side, and completely remove the locking device.





SMARTDRIVE™ COMMUNICATION CONNECTOR



Commercial name **COM SD LT CONNECTOR KIT**

Part number A49773B

Compatibility SmartDrive Easy Plus, SmartDrive Auto, SmartDrive Premier, SmartDrive Master, SmartDrive Offroad

Features

Manufacturer AMPHENOL

Components Bayonet connector 14 pins PT06A12-14SPG023F620

Cable diameter 3.5 - 8 mm [0.14 - 0.31 in]

Wire section 0,38 mm² to 0,93 mm² [to 0.0005 in² to 0.001 in²]

Operating temperature -55°C to 125°C [-67°F to 257°F]

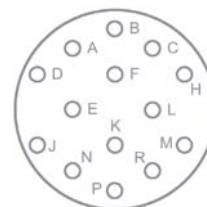
Material Aluminium

Connector mounting

1. Unscrew the connector sub-assemblies. Pass the cable through the securing elements.
2. Strip the wires to a length of 5 mm [0.19 in]. Solder the wires onto the pins as shown in the next table.
3. Remount the connector by screwing the securing elements to one another.

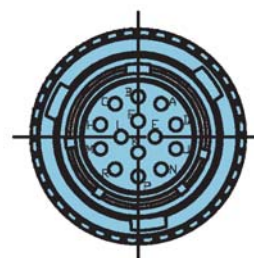
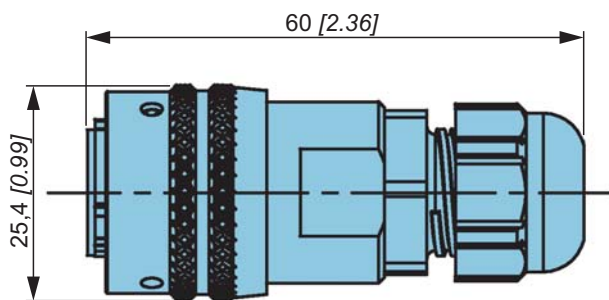
Connector wires designation

- E: CANL
- F: CANL
- K: CANH_120
- M: CANH
- N: CANH
- P: GND
- R: GND



A 120 ohm bus termination resistor can be activated in linking up K and E, or K and F.

Layout



Electronic control units

Displays

Electronic components

Connectors

Cables



SMARTDRIVE™ MALE COMMUNICATION CONNECTOR



Commercial name	KIT CONNECTEUR MALE COM SD
Part number	A50515H
Compatibility	SmartDrive™ Easy Plus, SmartDrive™ Auto

Features		
Manufacturer	Amphénol	
Components	Receptacle	PT02A12-14P023
	Closing cap	BECN1207
	Seal	JE12
Wire range	0,38 to 0,93 mm ²	
Insulation diameter	1,2 to 2,4 mm	
Operating temperature	-55°C to +125°C [-67°F to 257°F]	
Ingress Protection	IP68	
Material	Aluminium with plated nickel	

Connector mounting

Strip the wires to a length of 5 mm [0.19 in].
Solder the wires onto the pins as shown in the table below.

N° pin SD Easy Plus connector	Function	N° pin male communication connector
7	5V RS 232	A
12	CAN L	E, F
26	RX RS 232*	H
14	CAN H 120	K
27	TX RS 232*	L
13	CAN H	M, N
42	Ground	P, R



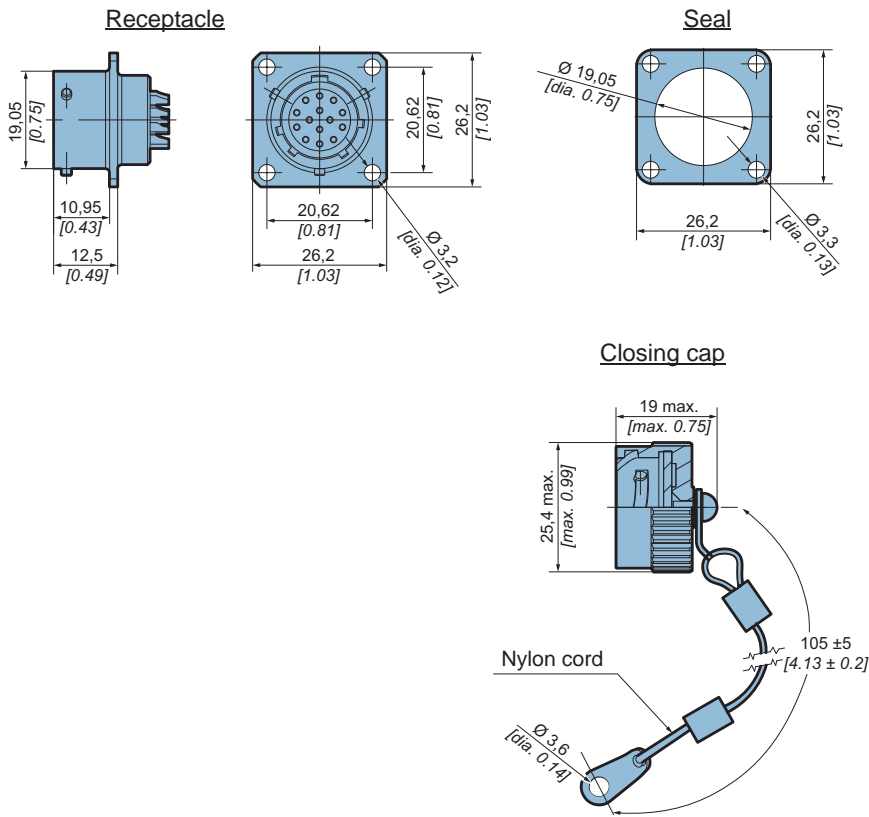
Risk of damage to the serial port of the ECU.

When connecting an external equipment working with the RS232 link, be sure to connect as following:

- RX RS 232 (Easy) → TX RS232 (Various equipment)
- TX RS 232 (Easy) → RX RS232 (Various equipment)



Layout



Electronic control units

Displays

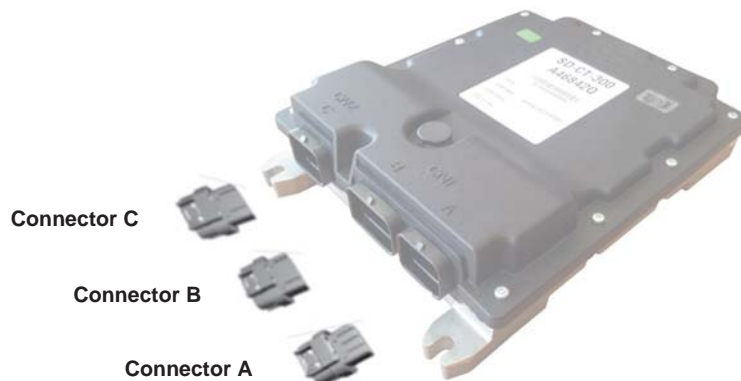
Electronic components

Connectors






Cables



SMARTDRIVE™ CT MAIN CONNECTOR

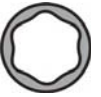


Characteristics	SD-CT-200	SD-T-300
Commercial name	KIT-CONNECT-SD-CT-200	KIT-CONNECT-SD-CT-300
Poclain Hydraulics part number	A48149L	A48140B
Function	SmartDrive™ CT controller's Counter-part connectors	
Compatibility	Electronic transmission management with SmartDrive™ CT controller	

Component	AMP reference		
Connector A	 1473416-1	x1	x1
Connector B	 4-1437290-1	x1	x1
Connector C	 3-1437290-7	0	x1
Sockets	 3-1447221-3	x65	x90
Stoppers	 4-1437284-3	x50	x75
Wire section	0,75 to 1,25 mm ² [0.00116 to 0.00194 in ²]		
Insulation diameter	for wire section 0,75 to 1,25 mm ² [0.00116 to 0.00194 in ²]: 1,6 to 2,4 mm [0.063 to 0.094 in]		
Operating temperature	-40°C to 85°C [-40°F to 185°F]		
Ingress Protection	IP67		

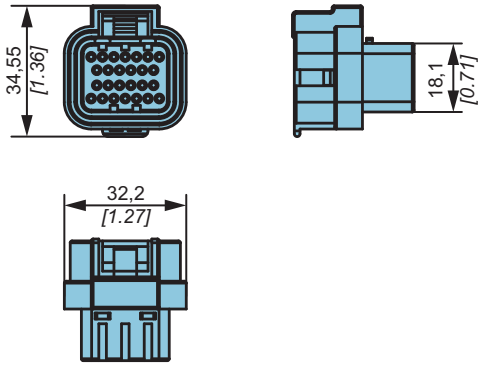
Mounting tools for the connector

Description	AMP reference
Crimpers 	1454509-1

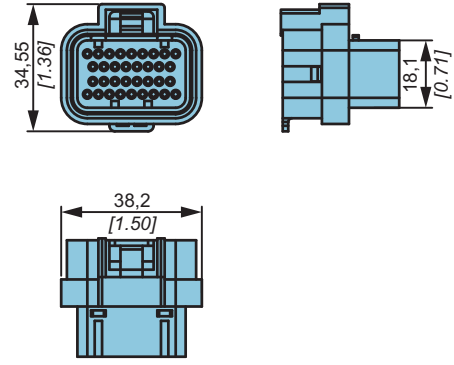


Overall dimensions

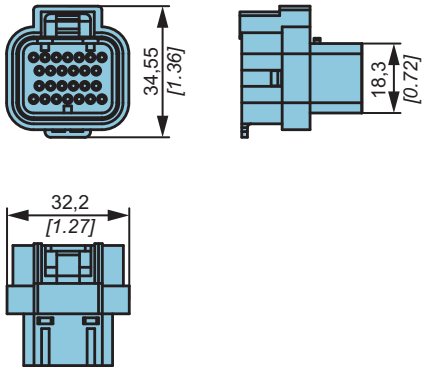
Connector A: 1473416-1



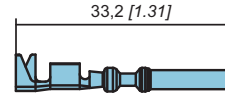
Connector B: 4-1437290-1



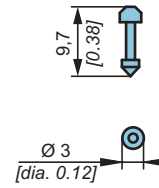
Connector C: 3-1437290-7



Socket: 3-1447221-3



Stopper: 4-1437284-3



Electronic control units

Displays

Electronic components

Connectors

Cables








SMARTDRIVE™ CT COMMUNICATION CONNECTOR



This connector has to be present on the machine to permit SmartDrive™ CT maintenance.

Commercial name	KIT-CONNECT-COM-M-SD-CT
Part number Poclain Hydraulics	A48693C
Function	Diagnosis and download the software embedded in the SmartDrive™ CT controller via CAN bus
Compatibility	Electronic transmission management with SmartDrive™ CT controller
Manufacturer	DEUTSCH

Features		Référence
Components	1x Receptacle	HD10-9-1939PE
		
	1 x Closing cap	HDC9-JDL082397
		
	1 x Gasket	HD10-9-GKT
		
	7 x pins	0460-202-1631 (AWG16-20)
		
	4 x Stoppers	114-017
		
Operating temperature	For the connector: -55°C to 125°C [-67°F to 257°F] For the gasket: -57°C to 107°C [-70.6°F to 224.6°F]	
Ingress Protection	IP67	
Wire section	0,5 to 1.0 mm ² [0.019 to 0.039 in ²] (16, 18, 20 AWG)	
Insulation diameter	1,35 to 3,05 mm [0.053 to 0.12 in]	

Mounting tools for the connector

Description		AMP reference
Crimpers		HDT-48-00
Extractor		0411-310-1605



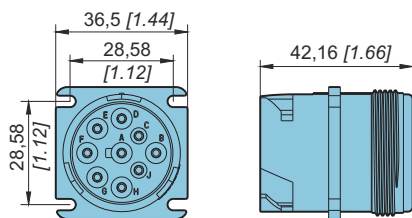
Connector mounting

Strip the wires to a length of 5 mm [0.19 in].
Crimp the wires onto the pins as shown in the table below.

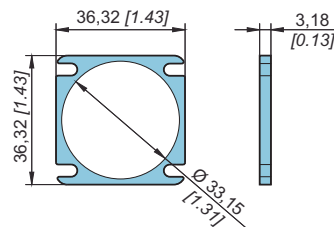
N° pin connector on SmartDrive™ CT controller	Function	N° pin male communication connector
	Ground	A
	VBAT_P	B
CAN 2 vehicle	Connector B pin 10	CAN2 H
	Connector B pin 18	CAN2 L
-	-	E
-	-	F
-	-	G
CAN 1 diagnosis	Connector B pin 1	CAN 1 H
	Connector B pin 2	CAN 1 L

Overall dimensions

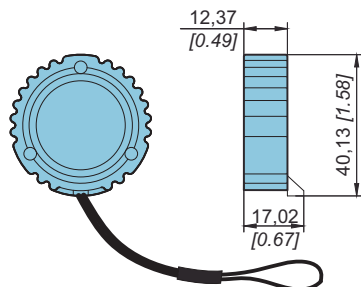
Receptacle: HD10-9-1939PE



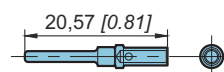
Gasket: HD10-9-GKT



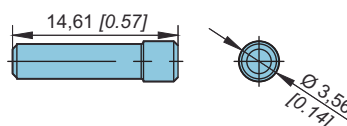
Cap: HDC9-JDL082397



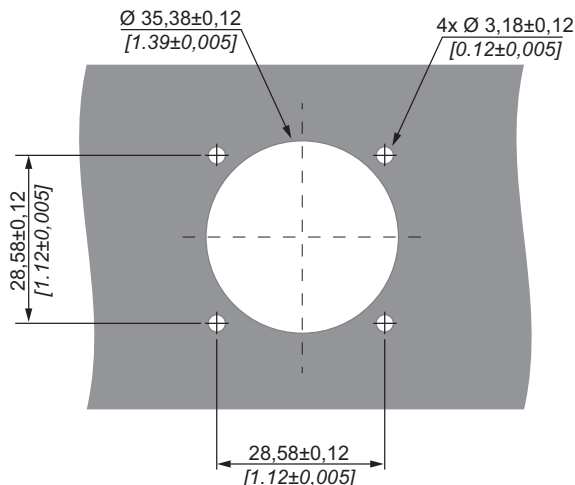
Pin: 0460-202-1631



Stopper: 114017



Panel cutout



Maximum panel thickness: 6,35 mm [0.25 in]

Electronic control units

Displays







Electronic components

Connectors

Cables

CONNECTOR KIT 120 Ω KIT

Commercial name	KIT-PLUG-120-DTM-2S
Part number	A52539H
Function	120 Ω termination resistor for CAN bus
Compatibility	Electronic transmission management with SmartDrive™ CT controller and Display 4.3C.

Features		Référence
Components		1 x receptacle DTM04-2P-P007
		2 x connectors DMT06-2S
		1 x wedgelock WM-2S
		1 x wedgelock WM-2SB
		1 x connector with integrated resistance DMT06-2S-EP10
		7 x sockets 0462-201-2031
Operating temperature	-55°C to 125°C [-67°F to 257°F]	
Wire section	0,2 to 0,5 mm ² [0.008 to 0.019 in ²]	
Insulation diameter	1,35 to 3,05 mm [0.053 to 0.12 in]	
Pin material	Gold plated	
Contact size	20	

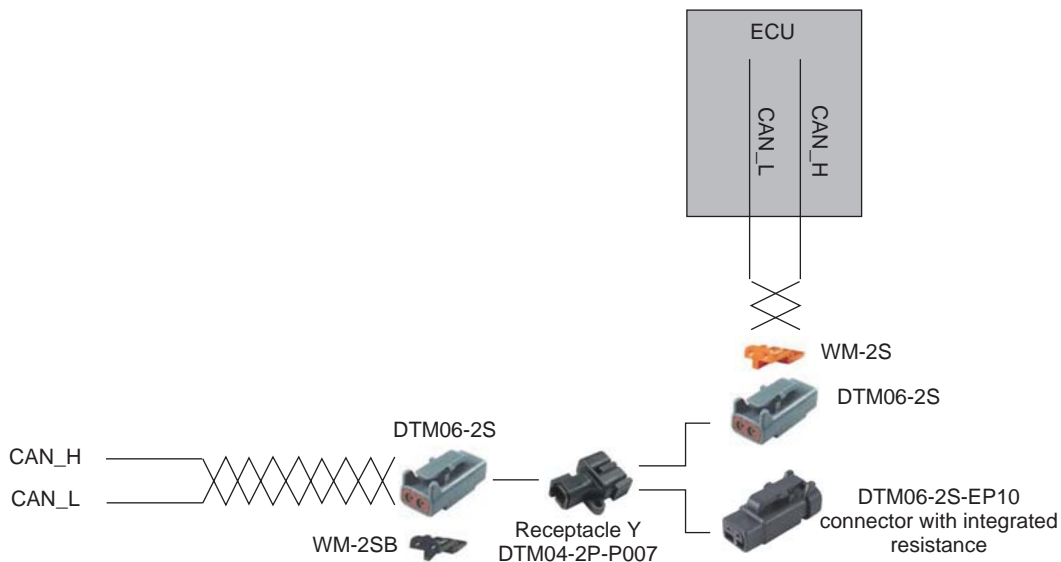
Mounting tools for the connector

Description	AMP reference
Crimpers	 HDT-48-00



Connector mounting

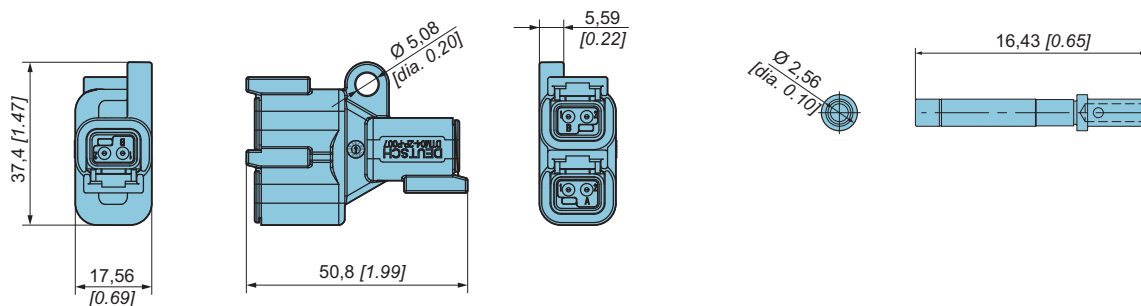
Strip the wires to a length of 5 mm [0.19 in].
Crimp the wires onto the sockets as shown in the diagram below.



Dimensions

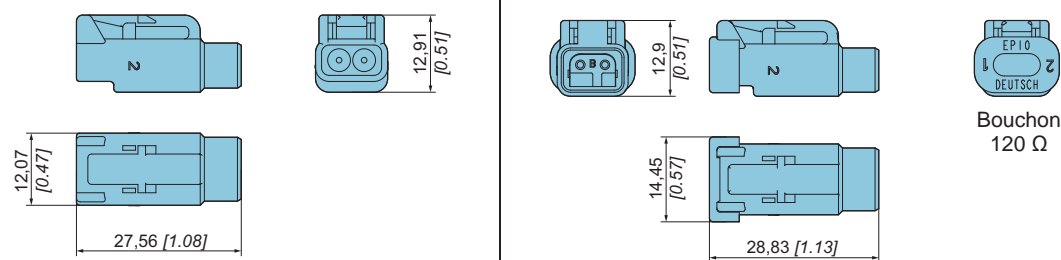
Receptacle Y: DTM04-2P-P007

Socket: 0462-201-2031



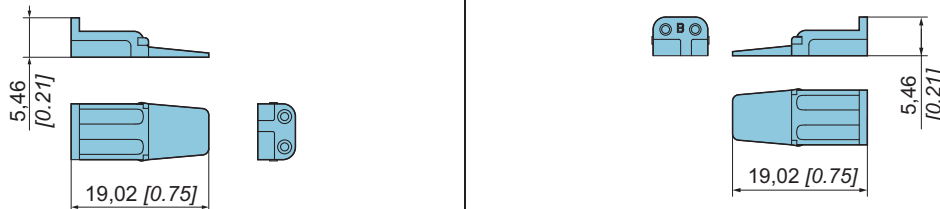
Connector: DTM06-2S

Connector with integrated resistance: DTM06-2S-EP10



Orange wedglock: WM-2S

Black wedglock: WM-2SB



Electronic control units

Displays

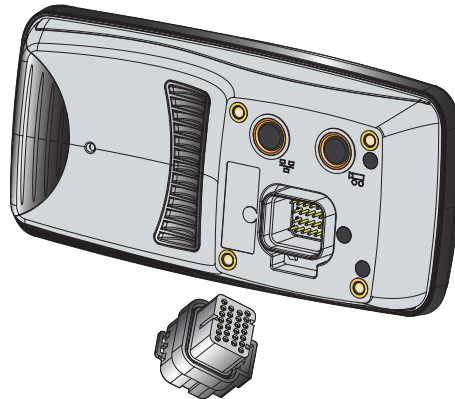
Electronic components

Connectors




Cables



DISPLAY 4.3C MAIN CONNECTOR



Characteristics	Display 4.3C
Commercial name	KIT-CONNECT-DISPLAY-4.3C
Poclain Hydraulics part number	A49050Q
Function	Display 4.3C's Counter-part connectors
Compatibility	Electronic transmission management with SmartDrive controllers.

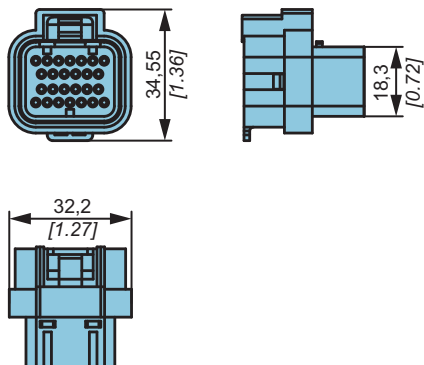
Component	AMP reference		
Connector		3-1437290-7	x1
Sockets		3-1447221-3	x8
Stoppers		4-1437284-3	x22
Wire section	0,75 to 1,25 mm ² [0.00116 to 0.00194 in ²]		
Insulation diameter	for wire section 0,75 to 1,25 mm ² [0.00116 to 0.00194 in ²]: 1,6 to 2,4 mm [0.063 to 0.094 in]		
Operating temperature	-40°C to 85°C [-40°F to 185°F]		
Ingress Protection	IP67		

Mounting tools for the connector

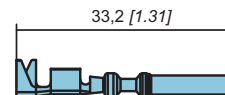
Description	AMP reference
Crimpers 	1454509-1

Overall dimensions

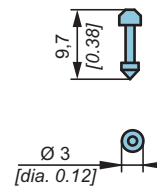
Connector: 3-1437290-7



Socket: 3-1447221-3



Stopper: 4-1437284-3





3-PIN WEATHER PACK CONNECTOR



Commercial name **KIT CONNECTEUR CAPT CDE SA**

Part number	007142212Z
Compatibility	Floor pedal. Suspended pedal. Swash plate sensor. Rotary potentiometer.

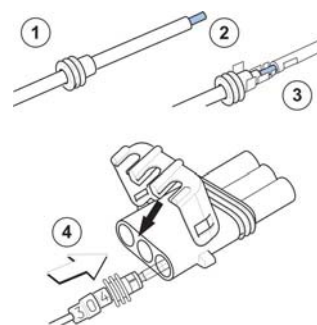
Features

Manufacturer	Delphi	
Components	3-way male connector	12015793
	3 female contacts	12089188
	3 seals	12015323
Wire section	0.5 to 0.8 mm ²	
Insulation diameter	2 to 2.9 mm	
Operating temperature	-40°C to +125°C [-40°F to +257°F]	
Ingress protection	IP 67	

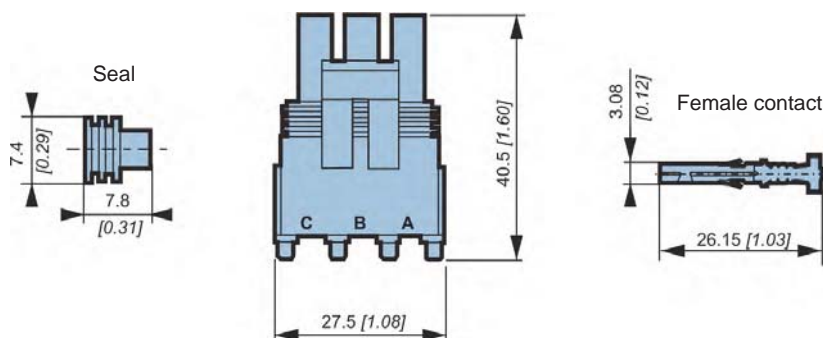
Connector mounting

Locking device position

1. Fit a seal on each wire.
2. Strip 5 mm [0.19 in] off the wires.
3. Crimp the terminals with the 1201 4254 Packard Electric pliers, pinching the seal with the lug.
4. Plug the terminal into its compartment. If a terminal is wrongly inserted, use extraction tool Ref 1201 4012 to remove it.
Fold down the connector latch.



Layout



Electronic control units

Displays

Electronic components

Connectors

Cables



3-PIN METRI PACK CONNECTOR

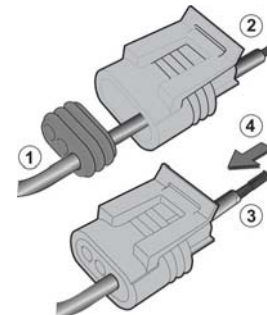


Commercial name	KIT CONNECTEUR CAPT VIRAGE
Part number	007142222K
Compatibility	Floor pedal. Rotary potentiometer.

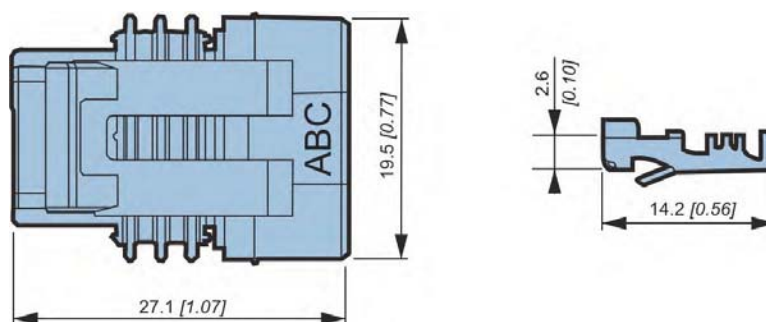
Features		
Manufacturer		Delphi
Components	3 terminal connector	1216 2182
	4 terminals	1212 4076
Wire section	0.35 to 0.60 mm ²	
Insulation diameter	1.30 to 2.20 mm	
Operating temperature	-40°C to +125°C [-40°F to +257°F]	
Ingress protection	IP 67	

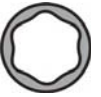
Connector mounting

1. Pass the wires through the connector.
2. Strip 5 mm from the wires.
3. Crimp the terminals with special tool 1203 9500.
4. Pull the wires towards the connector to fit the terminals into their housing.



Layout





6-PIN METRI PACK CONNECTOR

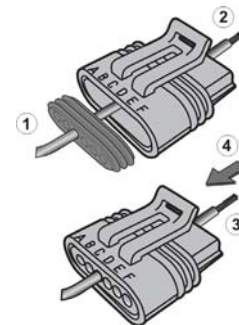


Commercial name	KIT-CONNECT-6-PIN-MP
Part number	A38140G
Compatibility	Joystick with Z-gate Rotary potentiometer.

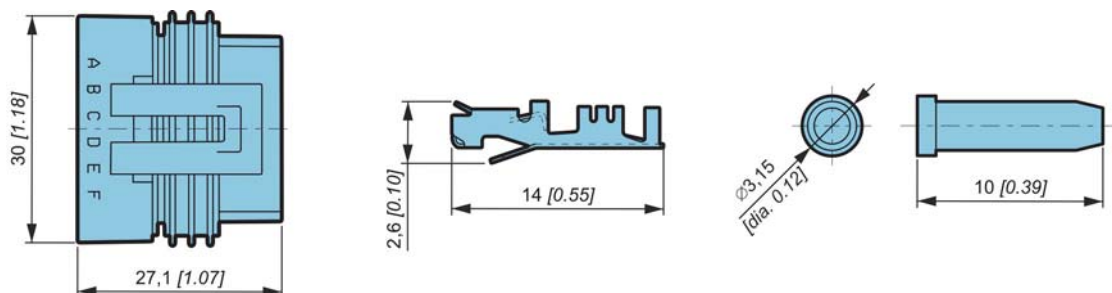
Features		
Manufacturer	Delphi	
Components	Connector (1x)	1206 6317
	Pin (7x)	1210 3881
	Stopper (3x)	1206 5266
Wire section	0,8 to 1,0 mm ²	
Insulation diameter	2,03 to 2.40 mm	
Operating temperature	-40°C to +125°C [-40°F to +257°F]	
Ingress protection	IP 67	

Connector mounting

1. Pass the wires through the connector.
2. Strip 5 mm from the wires.
3. Crimp the terminals with special tool 1203 9500.
4. Pull the wires towards the connector to fit the terminals into their housing.



Layout



Electronic control units

Displays

Electronic components

Connectors

Cables



EN 175301 - 803 STYLE A CONNECTOR

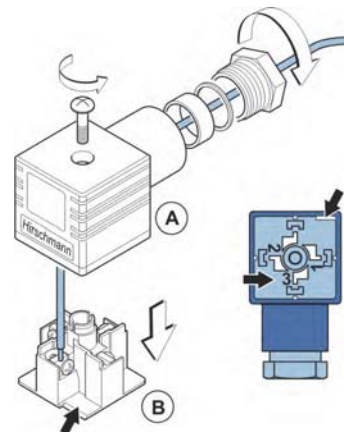
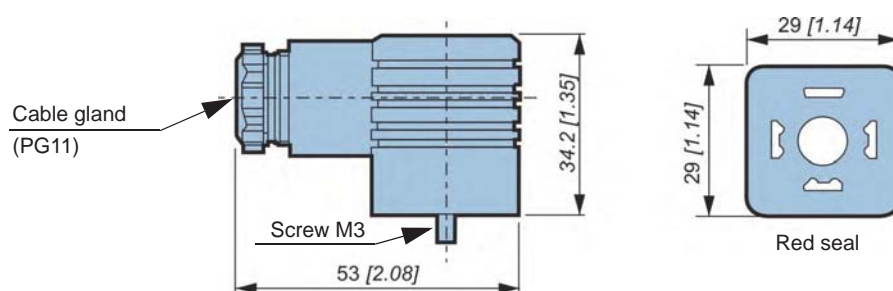


Commercial name	KIT CONNECT CDE SA
Part number	007142211X
Compatibility	Proportional control electro-valve. Electro-valve solenoid control.

Features	
Manufacturer	Hirschmann
Standard	EN 175301 - 803 style A (DIN43650)
Components	2 connectors GDM 2011 with 2 screws and 2 seals GDM-3-17
Max. current	16 A
Max. voltage	250 V (AV)
Wire section	max. 1.5 mm ²
Cable diameter	6 mm [0.24 in] to 9 mm [0.35 in]
Operating temperature	-40°C to +125°C [-40°F to +257°F]
Ingress Protection	IP65

Connector mounting

1. Unscrew the packing gland and the screw.
2. Open the connector with a flat-headed screwdriver inserted in part B of the slot.
Strip the wire over a length of 5 mm [0.19 in].
Pass the wire through the gland, then through the cover A.
Plug the wire into B. Wire No.3 has to be earthed.
3. Re-assemble B and A: The "3" mark has to be nearest the gland.
Refit the packing gland and the screw.

**Layout**



EN 175301 - 803 STYLE A CONNECTOR WITH DIODE

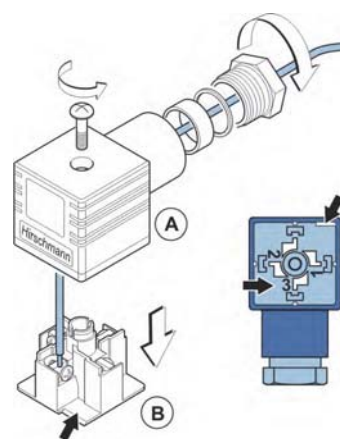


Commercial name	CONNECTOR-GDML-DIODE
Part number	A37605A
Compatibility	On/Off control electro-valve.

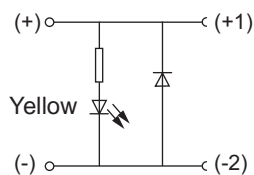
Features	
Manufacturer	Hirschmann
Standard	EN 175301 - 803 style A (DIN43650)
Components	1 connector GDML 2011 LED 24 HH YE with screw + 1 seal GDM 3-7
Max. current	8 A
Max. voltage	24 V DC (use 12 V and 24 V DC)
Wire section	max. 1.5 mm ²
Cable diameter	4.5 to 11 mm
Operating temperature	-40°C to +90°C [-40°F to +194°F]
Ingress Protection	IP65

Connector mounting

1. Unscrew the packing gland and the screw.
2. Open the connector with a flat-headed screwdriver inserted in part B of the slot.
Strip the wire over a length of 5 mm [0.19 in].
Pass the wire through the gland, then through the cover A.
Plug the wire into B. Wire No.3 has to be earthed.
3. Re-assemble B and A: The "3" mark has to be nearest the gland.
Refit the packing gland and the screw.



You should respect the polarity as shown in the diagram below.



Electronic control units

Displays

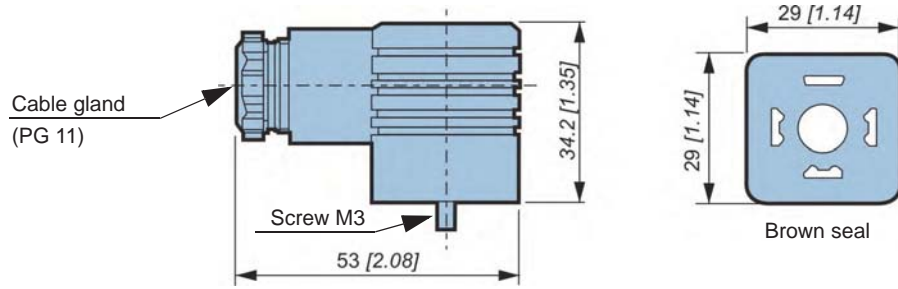
Electronic components

Connectors

Cables

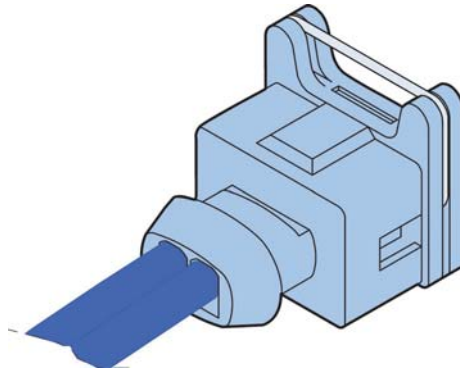


Layout





2-PIN AMP TIMER JUNIOR CONNECTOR



Commercial name VMA CONNECTOR VALVE KIT

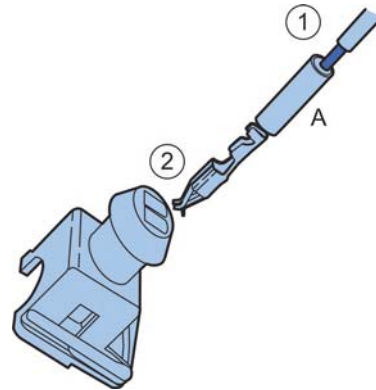
Part number	007142206S
Compatibility	In-line valve. Flanged valve.

Features

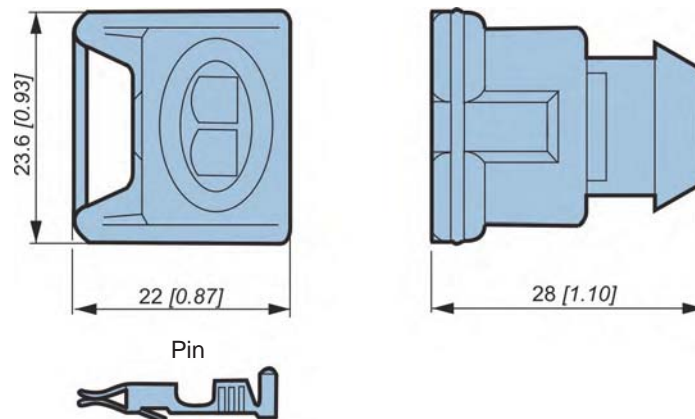
Manufacturer	AMP	
Components	3 contacts	927 846 - 2
	Body connector	827 551 - 3
Wire section	0.5 to 1 mm ²	
Insulation diameter	1.4 to 2.1 mm	

Connector mounting

- Strip 5 mm [0.19 in] of insulation off the cables. Crimp the lugs using an AMP CERTI-LOCK 169400 tool. Protect the connection with heat-shrink tubing (A), or Rislon fixed plastic tubing.
- Refer to your general wiring diagram, inserting each lug into its housing until it clicks into place.



Layout



Electronic control units

Displays

Electronic components

Connectors

Cables



2-PIN DEUTSCH CONNECTOR



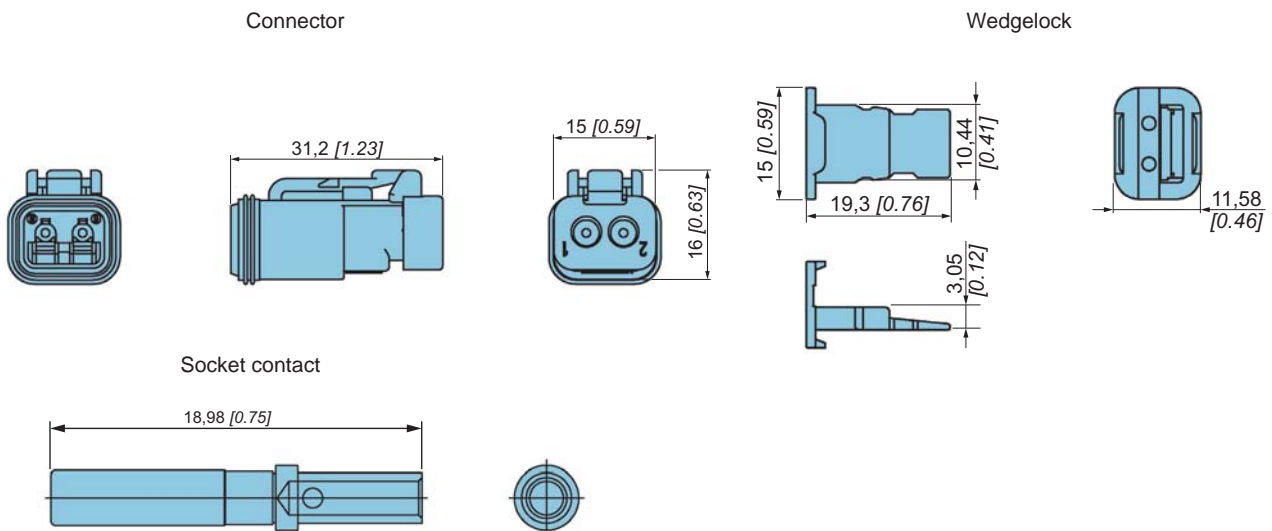
Commercial name	KIT-CONNECT-2-PIN-DEUTSCH
Part number	A42310P
Compatibility	Electro valve

Features		
Manufacturer		Deutsch
Components	1x Deutsch connector DT	DTM 06-2S
	1x Wedgelock	W2S-P012
	3x socket contact	0462-201-16141
Wire section	0.5 to 0.1 mm ²	
Cable diameter	2.23 to 3.68 mm	
Operating temperature	-55°C to +125°C [-40°F to +257°F]	
Ingress Protection	IP67	

Mounting tool

Crimp tool: HDT-48-00

Layout





3-PIN DEUTSCH CONNECTOR



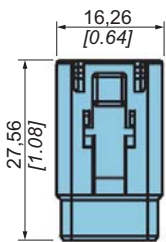
Commercial name	KIT-CONNECT-DTM-3S-NW8.5
Part number	B02468G
Compatibility	Position sensor

Features		
Manufacturer		Deutsch
Components	1 Deutsch connector DTM	DTM 06-3S
	1 Backshell 180° NW8.5	1028-005-0305
	1 Wedgelock	WM-3S
	4 socket contact size 20	0462-201-20141
Wire section	0.2 to 0.5 mm ²	
Cable diameter	1.35 to 3.05 mm	
Operating temperature	-55°C to +125°C [-40°F to +257°F]	
Ingress Protection	IP6K9K	

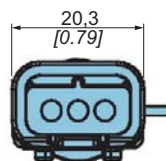
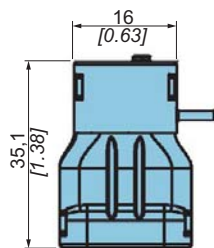
Mounting tool	
Crimp tool:	HDT-48-00

Layout

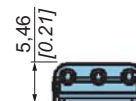
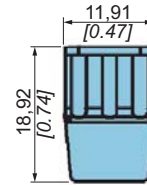
3 pins DTM connector



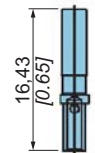
Backshell



Wedgelock



Socket contact



Electronic control units

Displays

Electronic components

Connectors

Cables



4-PIN DEUTSCH CONNECTOR



Commercial name	KIT-CONNECT-4-PIN-DEUTSCH
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Part number	A39961L
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Compatibility	Joystick with Z-gate
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Features

Manufacturer	DEUTSCH
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Components	Connector (1x)	DT06-4S-EP06
	Pin (5x)	0462-201-16141
	Stopper (1x)	114017
	Locking (1x)	W4S-P012

Wire section	0,5 to 1,0 mm ²
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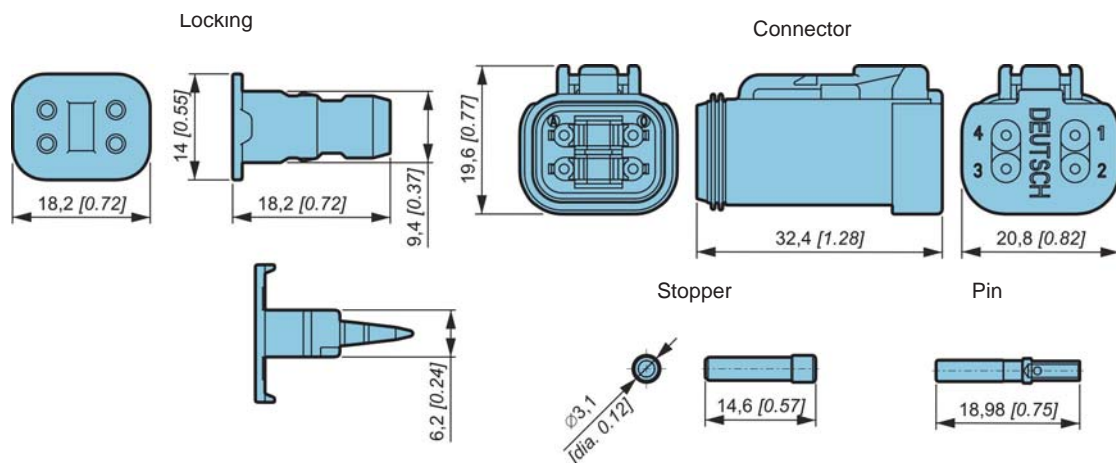
Insulation diameter	2,23 to 3.68 mm
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Operating temperature	-55°C to +125°C [-67°F to +257°F]
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Ingress protection	IP 67
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Mounting tools

Crimpers	HDT-48-00
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Layout



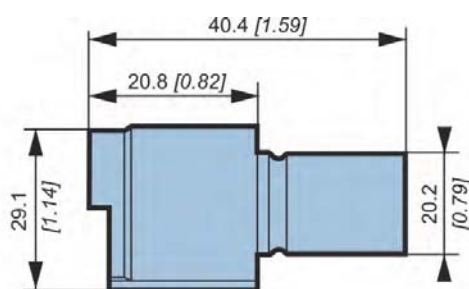
CONNECTOR ACTUATOR



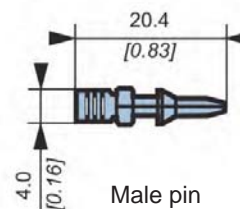
Commercial name	KIT CONNECT ACTIONNEUR
Part number	007142219G
Compatibility	Actuator

Features		
Manufacturer		ITT Cannon
Components	Female connector	120-8551-007
	Manchon	317-8657-000
	3 males pin	330-8672-000
	4 femals pin	031-8703-000
Wire range	0.75 to 1.5 mm ²	
Cable diameter	7.2 to 8.4 mm	
Wire insulation diameter	1.8 to 2.8 mm	

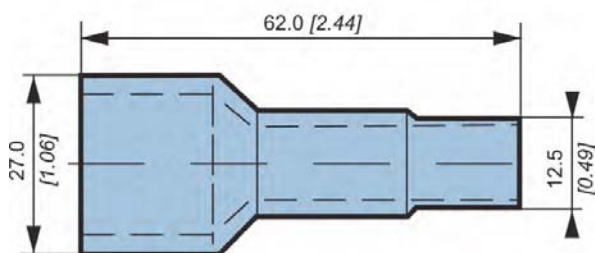
Layout



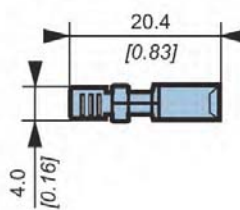
Female connector



Male pin



Manchon



Female pin

Electronic control units

Displays

Electronic components

Connectors

Cables



4-PIN DIN72585 IP6K9K CONNECTOR



Commercial name	KIT-CONNECT-4-PIN-DIN72585
Part number	B02394B
Compatibility	Pressure sensor IP6K9K Temperature sensor IP6K9K

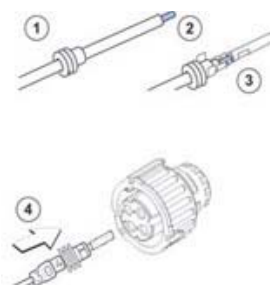
Features		
Manufacturer	Tyco	
Components	1 DIN connector socket4	1-967325-1
	1 Cap 90° NW8.5	965577-1
	4 Socket contacts	962981-1
	4 Single wire seals	828920-1
	2 Cavity plugs	828922-1
Wire section	0.5 to 1mm ²	
Insulation diameter	1.2 to 2.1 mm [0.05 to 0.11 in]	
Operating temperature	-40°C to +130°C [-40°F to 257°F]	
Ingress protection	IP6K9K	

Mounting tool

toCrimp tool :AMP 734289-1

Connector mounting

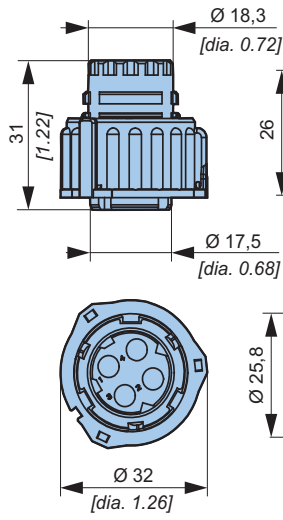
1. Fit a seal on each wire
2. Strip 5 mm [0.19 in] off the wires.
3. Crimp the socket contacts with the 734289-1 hand tool pliers in position 2 for wire range 0.5 to 1mm², pinching the seal with the lug.
4. Plug the terminal into its compartment. If a terminal is wrongly inserted, use extraction tool AMP Ref. 1-1579007-8 to remove it.



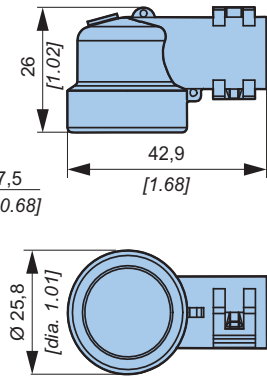


Layout

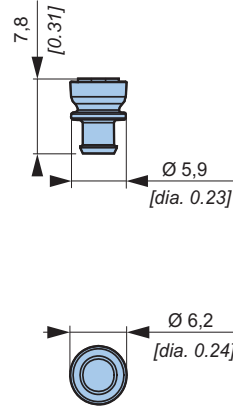
DIN connector socket 4 pins



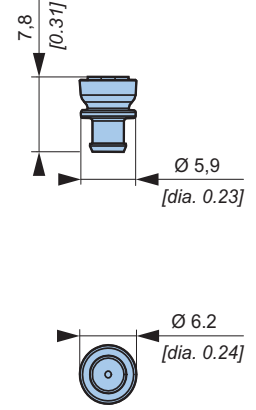
Cap 90° NW8.5



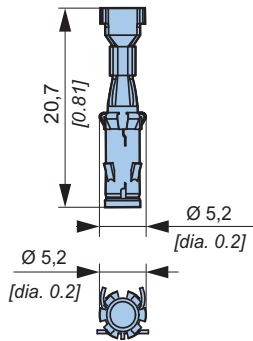
Cavity plug



Single wire seal



Socket contact 2,5 mm



Electronic control units

Displays

Electronic components

Connectors

Cables