



TECHnote

7P/12V EXPERT Connectors - SAE J560

It is our business to find optimum and safe solutions for various needs in the area of connectors and wires. For the North American truck and trailer connector market (SAE J560) and also for agricultural technology, we have an all-new solution with outstanding features for our customers. In comparison with existing product designs, we are able to enhance the application in terms of:



Reliability

- Contacts feature individual wire-seals to ensure water-tightness to IPX9K and IPX7
- Cover with seal for protection according to IP54
- Premium cover seal and unique central-load spring ensures water tightness (IPX4) when plug is not connected
- Plated contacts and active face seal prevent corrosive damage to contacts when plug is connected
- Optional flange seal is available to prevent water ingress between the socket and the vehicle or nose box
- Stainless steel mounting bolt bushings allow higher tightening torque
- Backshell with adaption for corrugated tube



Maintenance

- Modular design for easy repair or replacement
- Harness connector secured to socket housing with secondary locking feature
- 7-pin sockets and harness connector housings are labeled and color coded
 - Green = SAE J560 Primary
 - Yellow = SAE J560 Auxiliary
- Custom cover lettering available
- 90° or straight back-shell cover is easily removed and replaced for service and repair



Lower Cost

- No preattached expensive jacketed cable
- No over-mold tooling, process, and materials
- Increased flexibility of harness supplier selection
- Production process for harness maker is commonized with all other vehicle component harnesses
- Contact crimping and insertion can be performed by any harness manufacturer
- Lower weight contributes to lower operating costs

Highlights

- Exceeds all SAE requirements
- EXPERT sockets by ERICH JAEGER are watertight (IPX9K)
- Socket housing with reception of contact insert and securing bracket
- Contact insert with terminal position assurance (TPA)
- Socket housing with metal bushings
- Cable outlet as fold cover with latch (can only be closed if TPA is locked)
- Works best from -40°F to 185°F (-40°C to 85°C)
- 90° cable outlet for small installation spaces



SCAN to WATCH



7P/12V EXPERT Connectors - SAE J560

Model Versions



7P/12V EXPERT watertight socket - SAE J560 Primary
Set with nickel plated crimp contacts, contact insert, seal and cable outlet for corrugated tube NW17
Retail Packaging / PE bag

180° (straight) and 90° cable outlet
180° (straight) cable outlet
90° cable outlet

Part No.

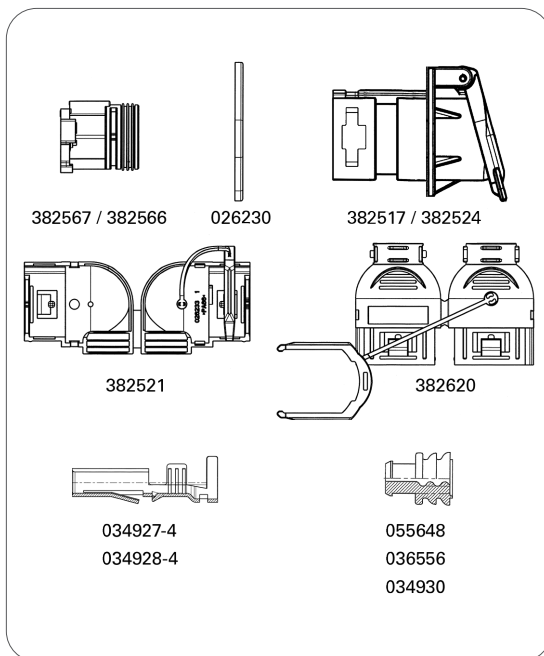
101390
101380
101379



7P/12V EXPERT watertight socket - SAE J560 Auxiliary
Set with nickel plated crimp contacts, contact insert, seal and cable outlet for corrugated tube NW17
Retail Packaging / PE bag

180° (straight) and 90° cable outlet
180° (straight) cable outlet
90° cable outlet

101391
101382
101381



7P/12V EXPERT socket housing - SAE J560 Primary

382517

7P/12V EXPERT socket housing - SAE J560 Auxiliary

382524

Contact insert - Primary

382567

Contact insert - Auxiliary

382566

Cable outlet 180°, for corrugated tube NW17

382620

Cable outlet 90°, for corrugated tube NW17

382521

Seal

026230

Crimp contact socket

12-10 AWG (3.0mm² - 5.0mm²)
8 AWG (8.0mm²)

034927-4
034928-4

Single wire seal

12 AWG (3.0mm²)
10 AWG (5.0mm²)
8 AWG (8.0mm²)

055648
036556
034930



7P/12V EXPERT Connectors - SAE J560

Model Versions



7P/12V EXPERT watertight socket - SAE J560 Primary
with corrugated tube (NW17) and clean cut cables
4x 12 AWG, 2x 10 AWG, 1x 8 AWG (4x 3 mm², 2x 5 mm², 1x 8 mm²)
Retail Packaging / PE bag

Tube length	Cable length
6.25 in. (300 mm)	16.5 in. (420 mm)
43.25 in. (1050 mm)	49.25 in. (1250 mm)

Part No.

501152
501157



7P/12V EXPERT watertight socket - SAE J560 Auxiliary
with corrugated tube (NW17) and clean cut cables
4x 3 mm², 2x 5 mm², 1x 8 mm² / 4x 12 AWG, 2x 10 AWG, 1x 8 AWG
Retail Packaging / PE bag

Tube length	Cable length
6.25 in. (300 mm)	16.5 in. (420 mm)
43.25 in. (1050 mm)	49.25 in. (1250 mm)

501154
501158

7P/12V EXPERT Connectors - SAE J560

Model Versions



Hand crimping tool for crimp contacts and single wire seals
8, 10, 12 AWG (8.0mm², 5.0mm², 3.0mm²)

Part No.

361065



7P/12V cable - SAE J560 Primary green cable
1/8 + 2/10 + 4/12 ga. (1x 8.0mm² + 2x 5.0mm² + 4x 3.0mm²)

Cable length

Packaging

12,5ft (3.8m)
12,5ft (3.8m)
13,0ft (3.95m)
13,0ft (3.95m)
14,3ft (4.35m)
14,3ft (4.35m)
18,0ft (5.5m)
18,0ft (5.5m)

Retail Packaging / PE bag
Bulk Packaging
Retail Packaging / PE bag
Bulk Packaging
Retail Packaging / PE bag
Bulk Packaging
Retail Packaging / PE bag
Bulk Packaging

611264
611243
611263
611259
611262
611244
611261
611231



7P/12V coil - SAE J560 Primary, green cable, coil diameter: 100mm
1/8 + 2/10 + 4/12 ga. (1x 8.0mm² + 2x 5.0mm² + 4x 3.0mm²)

Working length

Max. extension length

Packaging

12ft (3.5m)
12ft (3.5m)
15ft (4.5m)
15ft (4.5m)

14ft 9in (4.5m)
14ft 9in (4.5m)
18ft (5.0m)
18ft (5.0m)

Retail Packaging / PE bag
Bulk Packaging
Retail Packaging / PE bag
Bulk Packaging

611268
611222
611267
611224



7P/12V coil - SAE J560 Auxiliary yellow cable, coil diameter: 100mm
1/8 + 2/10 + 4/12 ga. (1x 8.0mm² + 2x 5.0mm² + 4x 3.0mm²)

Working length

Max. extension length

Packaging

12ft (3.5m)
12ft (3.5m)
15ft (4.5m)
15ft (4.5m)

14ft 9in (4.5m)
14ft 9in (4.5m)
18ft (5.0m)
18ft (5.0m)

Retail Packaging / PE bag
Bulk Packaging
Retail Packaging / PE bag
Bulk Packaging

611266
611223
611265
611225



7P/12V EXPERT Connectors - SAE J560

Contact Allocation

Contact allocation for Primary connectors according to SAE J560

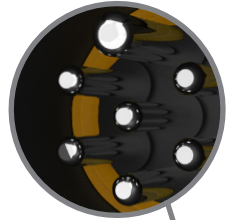
Contact No.	Function	Cross-sectional area	Core insulation colour
1	Ground	8 AWG / 8 mm ²	white
2	Clearance side lamps	12 AWG / 3 mm ²	black
3	Left turn and hazard	12 AWG / 3 mm ²	yellow
4	Stop and anti-lock	10 AWG / 5 mm ²	red
5	Right turn and hazard	12 AWG / 3 mm ²	green
6	Tail and license plate	12 AWG / 3 mm ²	brown
7	Aux and ABS power	10 AWG / 5 mm ²	blue

Contact allocation for Auxiliary connectors according to SAE J560

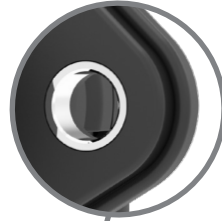
Contact No.	Function	Cross-sectional area	Core insulation colour
1	Ground	8 AWG / 8 mm ²	white
2	Cab switch aux power	12 AWG / 3 mm ²	black
3	ABS malfunction	12 AWG / 3 mm ²	yellow
4	Constant power or ignition aux power	10 AWG / 5 mm ²	red
5	Unassigned	12 AWG / 3 mm ²	green
6	Unassigned	12 AWG / 3 mm ²	brown
7	Unassigned	10 AWG / 5 mm ²	blue

7P/12V EXPERT Connectors - SAE J560

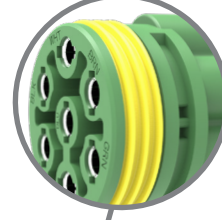
Socket housing with seal on bottom of SAE J560 connection



Socket housing with metal bushings



Separate contact housing with integrated circumference seal ensure highest water protection



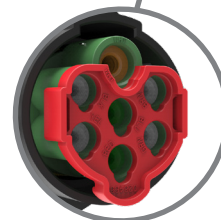
Cable outlet as fold cover with latching hook and fixed securing bracket



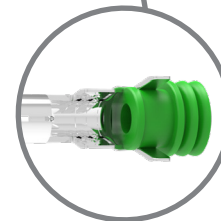
Cable outlet for corrugated tube



Contact insert with terminal position assurance (TPA)



Crimp contacts with single wire seals ensure highest water protection



Available as 180° and 90° cable outlet (90° version for small installation spaces)



Socket housing with seal in cover



Socket housing with reception of contact insert and securing bracket

