

F-15 C/D/E/K/SG/SA/EX/QA Fuel System Support Equipment

The PSD90-F15X Fuel Quantity System Interface Unit combined with the PSD90-1C or PSD90-3 test set is compatible with all current* production F-15 aircraft.

** The PSD90-F15X is functionally equivalent to the following except does not support model A/B aircraft*

PSD90-3 AC/DC | Order Code 22160648

The new universal AC/DC Capacitance Test Set is equivalent to and a direct replacement of the PSD90-1C and contains all the necessary functionality to measure and simulate capacitance and perform insulation resistance and continuity tests on the aircraft wiring. Includes functionality to automatically detect and manually test for contaminated fuel probes.

Please refer to the PSD90-3 product data sheet for more information.



The PSD90-3 AC/DC replaces the PSD90-1C

PSD90-1C | Order Code 877 | Legacy Part Number 01-1000-60 | NSN 4920-01-510-5628

PSD90-1C | Order Code 878 | Legacy Part Number 01-1000-61 | NSN 4920-01-528-2230

The PSD90-1C is a Universal AC/DC Capacitance Test Set. Contains all the necessary functionality to measure and simulate probe and tank capacitance, troubleshoot aircraft wiring by performing insulation resistance and continuity tests, and isolate corroded “fritted” connections via a low voltage / low current mode.



PSD90-F15X | Order Code 22143833

The PSD90-F15X interfaces the PSD90-1C or the PSD90-3 with the F-15 Fuel Quantity Indicating System allowing for a complete functional checkout of the F-15's system. Used to measure the capacitance of tank units by routing all needed signals to the PSD90-1C or PSD90-3 test set. It can also simulate empty and full tank values to test the operation of the indicators and allows for testing of the level sensors to verify wet, dry, open, or shorted conditions.

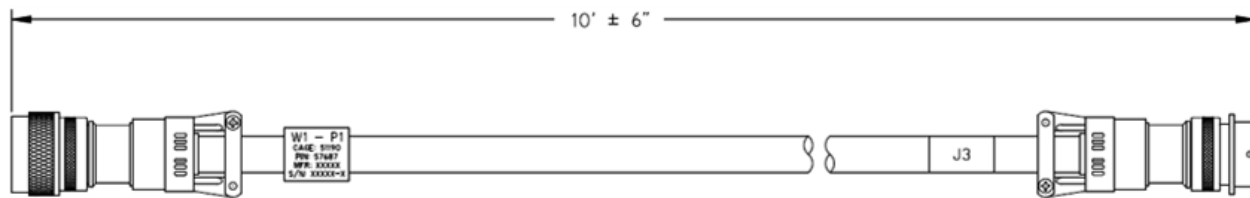


Legacy Equipment Compatibility

PSDAF-F15 | Order Code 57638 | Legacy Part Number 55-0816-30 | NSN 4920-01-505-3646
PSD90-F15 | Order Code 57686 | Legacy Part Number 55-0816-40 | NSN 4920-01-590-0321 and 4920-01-619-3365

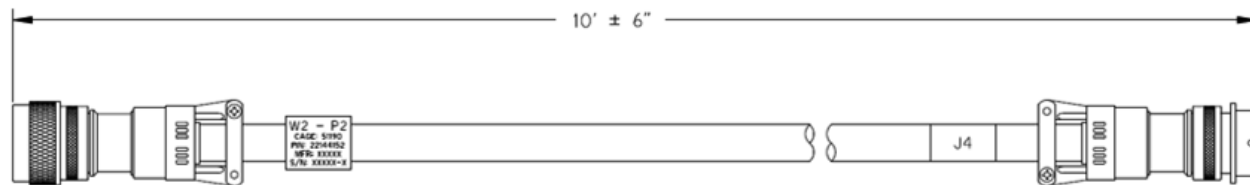
(Note: Equivalent to PSDAF-F15, includes additional environmental and EMI protection)

The PSDAF-F15 includes the following cables and accessories:



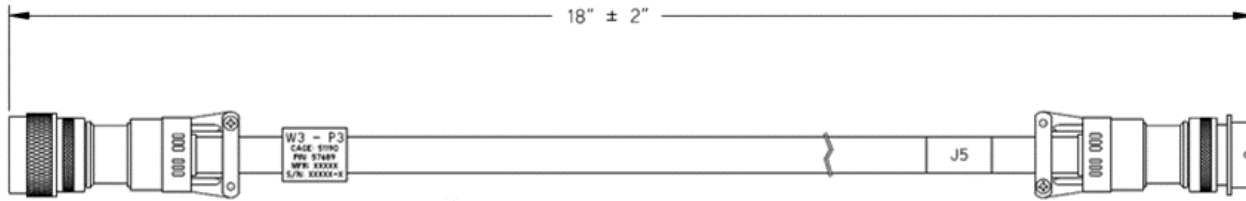
W1 Cable | Order Code 57687 | Legacy Part Number 55-0816-41

W1 Extension Cable – Measurement. W1 is a 10' extension cable used in conjunction with other adapter cables for all measurement functions. W1-P1 connects to the PSD90-F15X J1 MEAS connector. W1-13 connects to W3-P3, W4-P3, W5-P3, W6-P3, W7-P3, W8-P3, & W19-P3 for ease of access to applicable tank.



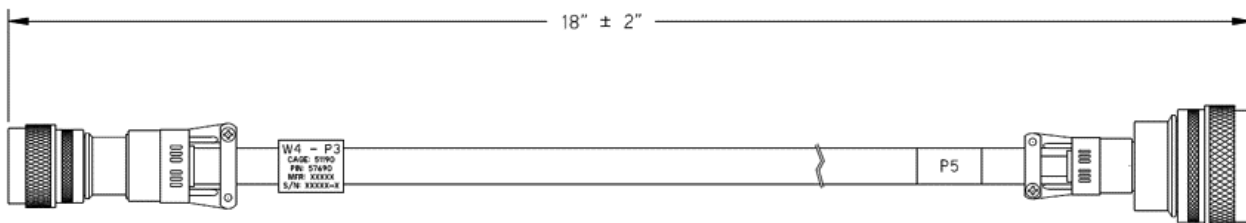
W2 Cable | Order Code 22144152

W2 Extension Cable – Simulation. W2 is a 10' extension cable used in conjunction with other adapter cables for all simulation functions. W2-P2 connects to the PSD90-F15X J2 SIM connector. W2-J4 connects to W10-P4, W11-P4, & W20-P4 for ease of access to aircraft tank harness and FSC.



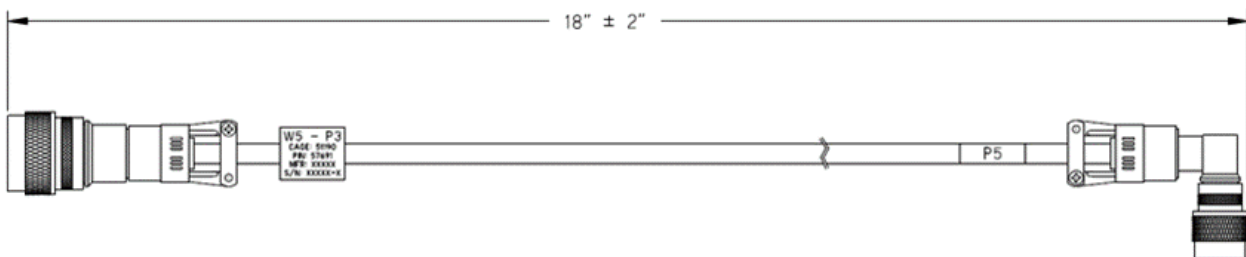
W3 Cable | Order Code 57689 | Legacy Part Number 55-0816-43

W3 Measure Tanks@ FSC C/D/E/K/SA/SG. W3 is used with the W1 Measure Extension Cable to measure tanks from the FSC. W3-P3 connects to W1-J3 and W3-J5 connects to the aircraft harness at the FSC.



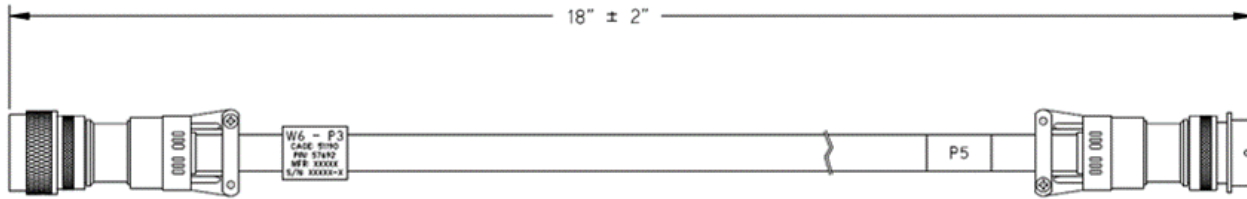
W4 Cable | Order Code 57690 | Legacy Part Number 55-0816-44

W4 Measure Conformal Tanks. W4 is used with the W1 Measure Extension Cable to measure conformal tanks from the tank disconnect. W4-P3 connects to W1-J3 and W4-P5 connects at the conformal tank disconnect.



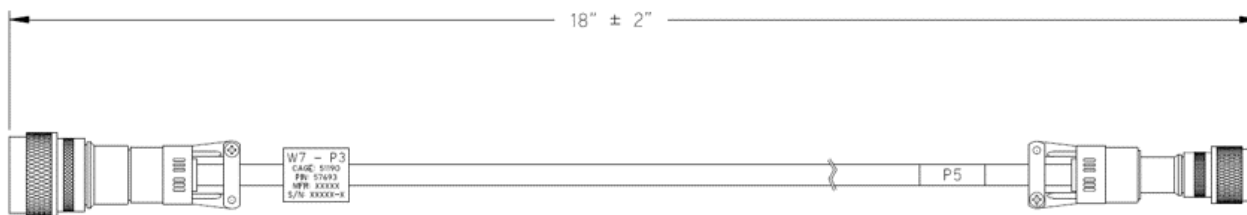
W5 Cable | Order Code 57691 | Legacy Part Number 55-0816-45

W5 Measure AFT Wing Tank. W5 is used with the W1 Measure Extension Cable to measure AFT Wing tanks from the tank disconnect. W5-P3 connects to W1-J3 and W5-P5 connects at the AFT Wing tank disconnect.



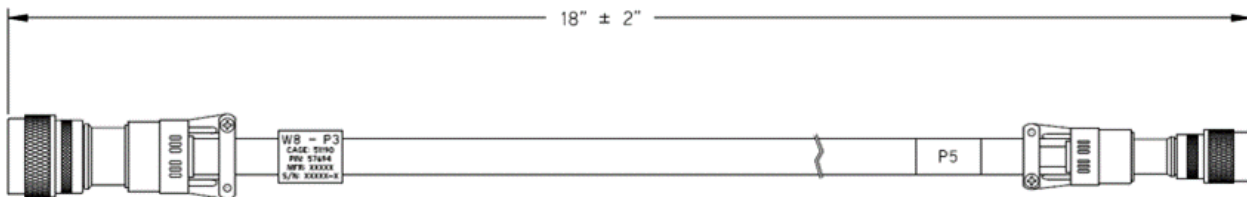
W6 Cable | Order Code 57692 | Legacy Part Number 55-0816-46

W6 Measure Wing Tanks. W6 is used with the W1 Measure Extension Cable to measure Wing tanks from the tank disconnect. W6-P3 connects to W1-J3 and W6-P5 connects at the Wing tank disconnect.



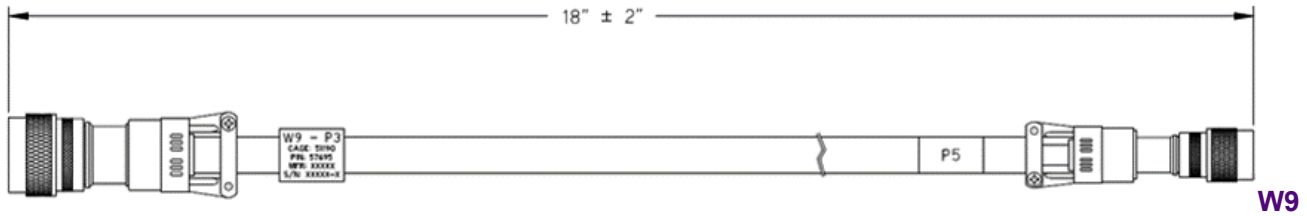
W7 Cable | Order Code 57693 | Legacy Part Number 55-0816-47

W7 Measure Body Tanks Adapter Cable. Measure Body Tanks 2, 3A & 38.



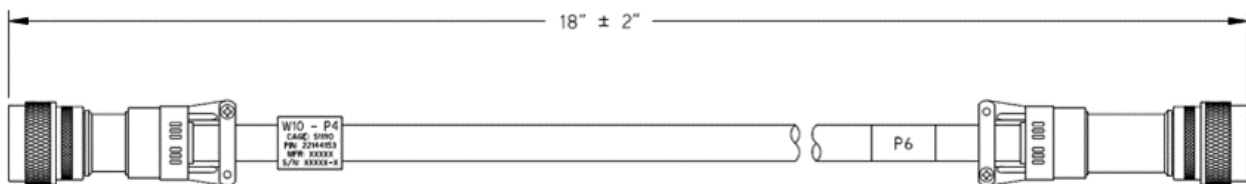
W8 Cable | Order Code 57694 | Legacy Part Number 55-0816-48

W8 Measure Tank 1 (C/D Models). W8 is used with the W1 Measure Extension Cable to measure Tank 1 from the tank disconnect. W8-P3 connects to W1-J3 and W8-P5 connects at the Tank 1 disconnect on C and D model aircraft.



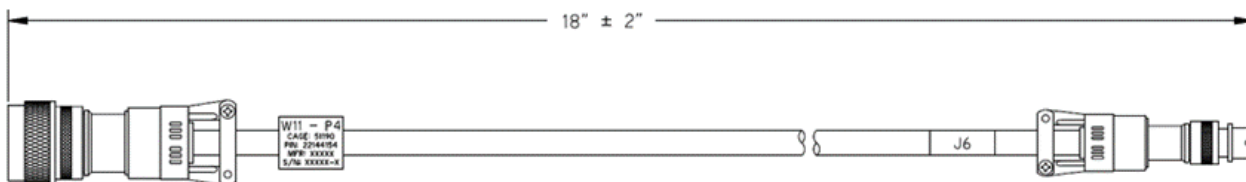
Cable | Order Code 57695 | Legacy Part Number 55-0816-49

W9 Measure Tank 1 (E/K/SA/SG/EX/QA Models). W9 is used with the W1 Measure Extension Cable to measure Tank 1 from the tank disconnect. W9-P3 connects to W1-J3 and W9-P5 connects at the Tank 1 disconnect on E and X model aircraft.



W10 Cable | Order Code 22144153

W10 Simulate Tanks at FSC (C/D/E/K/SA/SG Models). W10 is used with the W2 Simulate Extension Cable to simulate full and empty values from the FSC. W10-P4 connects to W2-J4 and W10-P6 connects to aircraft wiring harness at the FSC.

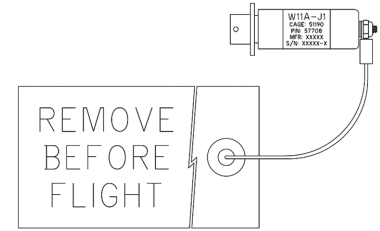


W11 Adapter | Order Code 22144154

W11 Simulate Thermistors. W11 is used with the W2 Simulate Extension Cable to simulate level sensors (Thermistors) in Tank 2 or 3A from the tank disconnect. W11-P4 connects to W2-J4 and W11-J6 connects at the tank disconnect.

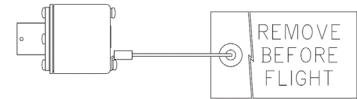
W11A Adapter | Order Code 57708 | Legacy Part Number 55-0816-4S

W11A Simulate Wet Tank Adapter. W11A is used to simulate a wet thermistor from the Tank 2 or 3A tank disconnect wiring harness. W11A-J1 connects to tanks 2 & 3A tank disconnect wiring harness of all aircraft models. (only required if tanks are empty)



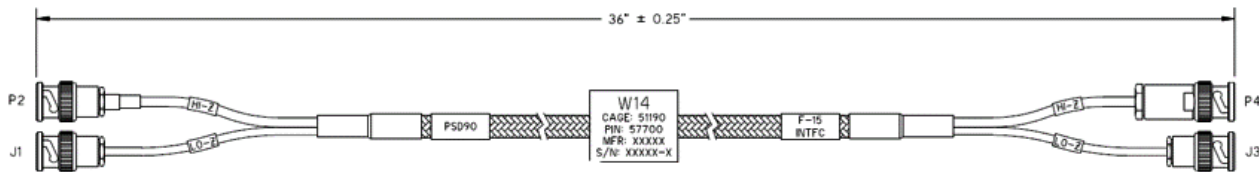
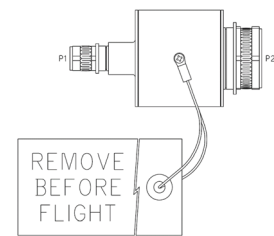
W12 Adapter | Order Code 57698 | Legacy Part Number 55-0816-4C

W12 Simulate External Tank Adapter. W12-J1 connects to the external tank aircraft wiring harness of all aircraft models for full external tank simulation.



W13 Adapter | Order Code 57699 | Legacy Part Number 55-0816-4D

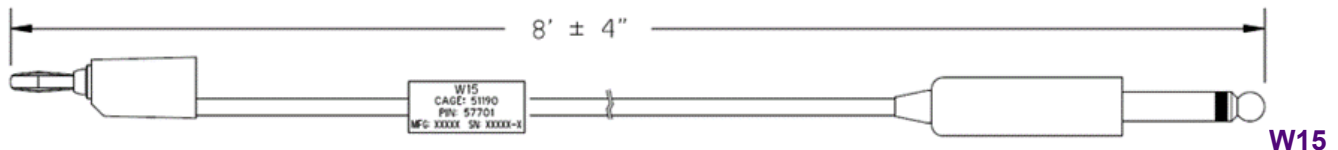
[W13] Simulate Pylon Adapter. W13-P1 connects to the external tank pylon connector for full external tank simulation.



W14 Cable | Order Code 57700 | Legacy Part Number 55-0816-4E

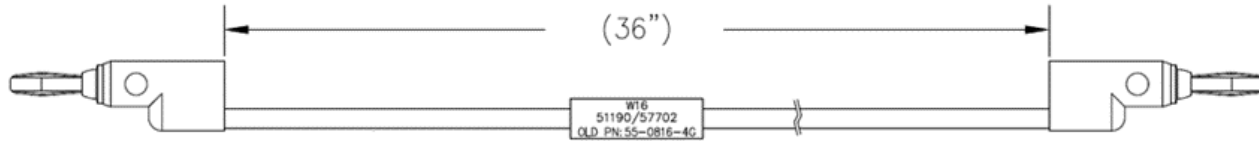
W14 PSD90-1C HI-Z / LO-Z Interface Cable. W14 Interfaces the PSD90-F15X to an AC/DC capacitance test set. For interface to the PSD90-1C reference the following:

- W14-J3 LO-Z connects to the PSD90-F15X P3 LO-Z connector and W14-P4 HI-Z connects to the PSD90-F15X J4 HI-Z connector.
- W14-J1 LO-Z connects the PSD90-1C P3 LO-Z connector and W14-P2 HI-Z connects to the PSD90-1C J4 HI-Z connector.



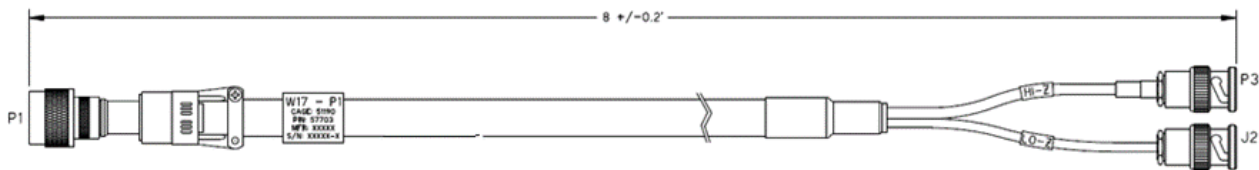
W15 Cable | Order Code 57701 | Legacy Part Number 55-0816-4F

W15 Aircraft Ground Cable. W15 connects between the PSD90-1C or PSD90-F15X Chassis ground and the aircraft airframe ground.



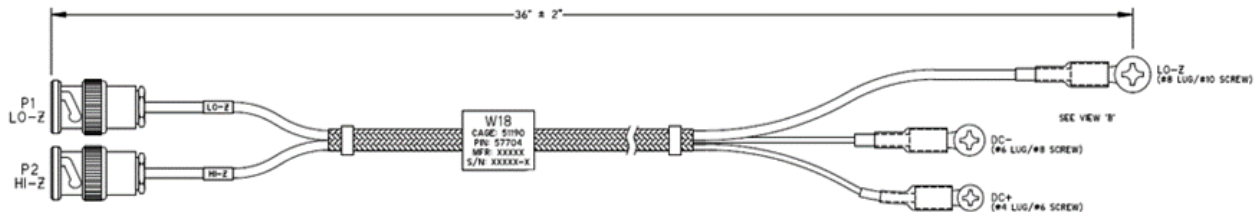
W16 Cable | Order Code 57702 | Legacy Part Number 55-0816-4G

W16 Chassis Ground Jumper. W16 connects between the PSD90-F15X Chassis ground and the PSD90-1C Chassis ground.



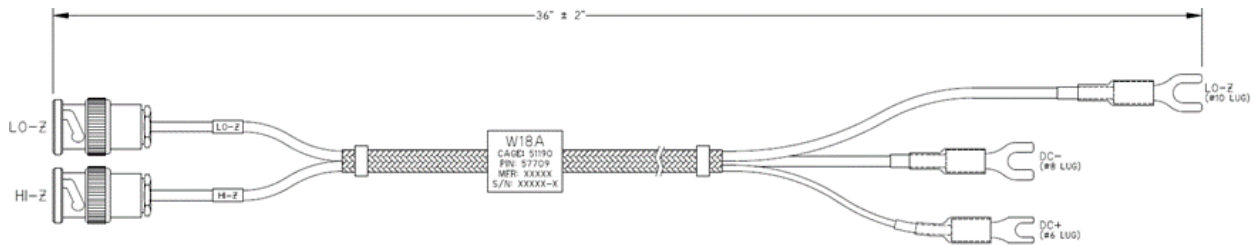
W17 Cable | Order Code 57703 | Legacy Part Number 55-0816-4H

W17 Measure External Tank. W17 measures the external tanks at the tank disconnect. W17-P1 connects at the External tank disconnect. W17-P3 HI-Z connects to the PSD90-1C J4 HI-Z connector and W17-J2 LO-Z connects to the PSD90-1C P3 LO-Z connector. The PSD90-F15X is not used for this measurement.



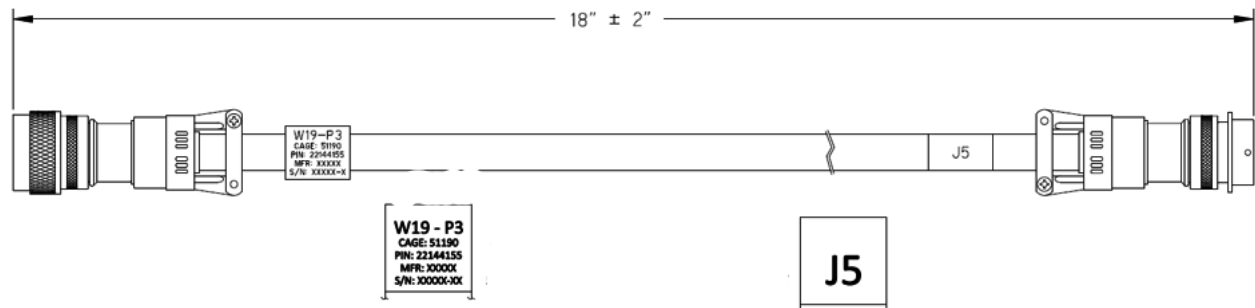
W18 Cable | Order Code 57704 | Legacy Part Number 55-0816-4J

W18 Measure Probe Cable. W18 is used to measure all but conformal tank probes when removed from the aircraft. The LO-Z, DC+ and DC-terminations on W18 are fastened directly onto the probes. W18-P1 connects to the PSD90-1C P3 LO-Z connector and W18-P2 connects to the PSD90-1C J4 HI-Z connector.



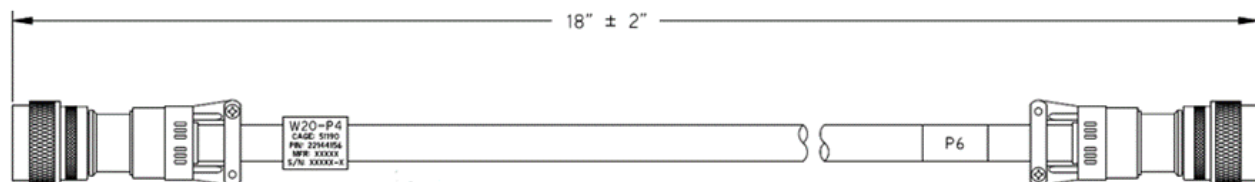
W18A Cable | Order Code 57709 | Legacy Part Number 55-0816-4T

W18A Measure Probe Cable. W18A is used to measure conformal tank probes when removed from the aircraft. The LO-Z, DC+ and DC- spade terminations on W18A are fastened directly onto the probes. W18A-P1 connects to the PSD90-1C P3 LO-Z connector and W18A-P2 connects to the PSD90-1C J4 HI-Z connector.



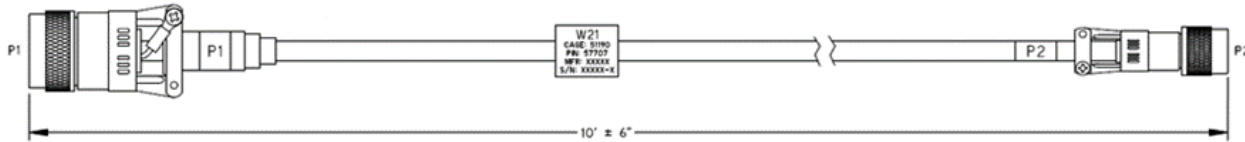
W19 Cable | Order Code 22144155

W19 Measure Tanks @ FSC. W19 is used with the W1 Measure Extension Cable to measure tanks from the FSC. W19-P3 connects to W1-J3 and W19-J5 connects to the aircraft wiring connector 14P-P031B at the FSC.



W20 Cable | Order Code 22144156

W20 Simulate Tanks @ FSC (X Model). W20 is used with the W2 Simulate Extension Cable to simulate full and empty values from the FSC. W20-P4 connects to W2-J4 and W20-P6 connects to J2 of the aircraft FSC.



W21 Cable | Order Code 57707 | Legacy Part Number 55-0816-4M

W21 Power Cable. W21-P1 connects to aircraft power (114VAC 400Hz), W21-P2 connects to the PSD90-1C J2 connector to provide power to the PSD90-1C when required for charging or for powering the PSD90-1C when its batteries are low.

PSD90-F15X Cable Usage Chart

Designator	C	D	E	K	SG/SA	EX/QA/X (X = All current and future production aircraft)
W1	■	■	■	■	■	■
W2	■	■	■	■	■	■
W3	■	■	■	■	■	
W4	■	■	■	■	■	■
W5	■	■	■	■	■	■
W6	■	■	■	■	■	■
W7	■	■	■	■	■	■
W8	■	■				
W9			■	■	■	■
W10	■	■	■	■	■	
W11	■	■	■	■	■	■
W11A	■	■	■	■	■	■
W12	■	■	■	■	■	■
W13	■	■	■	■	■	■
W14	■	■	■	■	■	■
W15	■	■	■	■	■	■
W16	■	■	■	■	■	■
W17	■	■	■	■	■	■
W18	■	■	■	■	■	■
W18A			■	■	■	■
W19						■
W20						■
W21	■	■	■	■	■	■