

EA02-025

TEXAS INSTRUMENTS, INC.'S

9/10/03 ATTACHMENT TO ODI

REQUEST #3

BOX 5

PARTS A - P

PART I



Supplier Warrants - By Part Number

AlliedSignal Inc.
Braking Systems-Americas
401 N. Bendix Drive
P.O. Box 4001
South Bend, IN 46634-4001

04/15/96
219 237 2100

7763-1

April 15, 1996

Texas Instruments
34 Forest Street
Attleboro, Massachusetts 02703

ATTENTION: Michael J. Lapointe
Tel #: 508-236-3885 Fax #: 508-236-1964

SUBJECT: Sample Submission Approval
Recertification on PSWR # SBD93169
Part No. 2234330 - Revision A - Dated 09/14/94
Description: Assy - Pressure Switch

Your recent sample submission on the subject part number has been approved. I have enclosed a copy of the approved Part Submission Warrant Request for your files. Please note at the bottom of the form that your next recertification is due 04/30/97. Please take the necessary steps to assure that you will be able to provide recertification samples and documentation in accordance with your recertification date.

Your cooperation has been greatly appreciated and should you have any questions concerning this matter please do not hesitate to call me at 219-237-2142, or you may call the responsible SQI engineer whose name and extension appear on the Part Submission Warrant Request. If you wish to contact me via fax, you may do so on 219-237-2086

Sincerely,


Denny Moore
SQI Team Leader

cc: FMs,

TI-NHTSA 7712



Supplier Warrants - By Part Number

04/15/96

AlliedSignal Inc.
Braking Systems Americas
401 N. Bendix Drive
P.O. Box 4001
South Bend, IN 46634-4001

219 237 2100

77L 3-1

Part Submission Warrant Request

Date Initiated: 11/09/95

Warrant No: 88053100

Initiated By: SOI

Submission Level 4: Warrant & Documents Only Delivered to ASBS Location

Deliver To Attention: Danny Moore: 401 N. Bendix Drive: South Bend, Indiana 46620

Number of Samples: 0

Date Required: 12/22/95

Date Received: 01/19/96

PART # : <u>2234330</u> REV: <u>A</u> DATED: <u>09/14/94</u> DESCRIPTION: <u>Assy - Pressure Switch</u> SUPPLIER: <u>Texas Instruments</u> CODE: <u>88070</u> SURVEY SCORE: <u>82 (05/31/91)</u> REASON FOR SUBMISSION: <u>Recertification</u>	NBR NO: <u>GP-0259 & 60:</u> <u>EN-114/FN-116 P.S.</u> PRODUCT: <u>Master Cylinder (RD)</u> CUSTOMER: <u>Ford Motor Company</u> ASBS USING PLANTS: <u>Gallatin</u>
--	---

SOI Contact: Jon Kozel 219-237-2135

Buyer:

Expect. Meet Date:	Req'd		Approved		Rejected	
	Yes/No	Date	By	Date	By	
I. SUPPLIER INFORMATION REQUIRED						
A. Part Submission Warrant (AIAG - PPAP)	No					
B. Process Flow Chart	Yes	4/11	DCB			
C. Process FMEA (RPN <100: 1 RPN >100: 0)	Yes	4/11	DCB			
Last Rev. Date: <u>12/05/95</u>						
D. Control Plan	Yes	4/11	DCB			
Last Rev. Date: <u>12/05/95</u>						
E. Dimensional Layout with Numbered Print	Yes	4/11	DCB			
F. Process Potential Study (Design Charac.)	Yes	4/11	DCB			
G. Material and Other Eng Spec Certification	Yes	4/11	DCB			
Spec: <u>Compound #:</u>						
H. Supplier Functional Testing	Yes	4/11	DCB			
J. Other (See Remarks in Section V.)	No					
II. ASBS FUNCTIONAL TESTING	No					
Last Test Date:						
III. CFT APPROVING AUTHORITIES						
A. Product Engineering	No					
B. Plant Quality Engineering	No					
C. Plant Manufacturing Engineering	No					
IV. ASBS CUSTOMER APPROVAL	No					
(Other than ISW i.e. SPFA, Black Box, etc.)						
V. REMARKS/SPECIAL INSTRUCTIONS (Design FMEA, Special Gages, Special Samples, Packages, Etc.)						

Final Approval on This Form by ASBS Supply Base Management Authorizes Release of Purchased Parts.

APPROVED: D.C. BROWN

DATE: 04/01/96

On time delivery? No

Approved 1st time? Yes

PPM: 0

TI-NHTSA 7713



AlliedSignal Inc.
Braking Systems-North America
401 N. Bendix Drive
P.O. Box 4001
South Bend, IN 46634-4001

219 237 2100

December 5, 1994

Texas Instruments
34 Forest Street
Attleboro, Massachusetts 02703

ATTENTION: Elaine Ross
Tel #: 508-699-3090 Fax #: 508-699-3153

SUBJECT: Sample Submission Approval
Initial Sample on SSW # SBD42026
Part No. 2234330 - Revision A - Dated 09/14/94
Description: Assy - Pressure Switch

Your recent sample submission on the subject part number has been approved. I have enclosed a copy of the approved Part Submission Warrant Request for your files. Please note at the bottom of the form that your next recertification is due 12/31/95. Please take the necessary steps to assure that you will be able to provide recertification samples and documentation in accordance with your recertification date.

Your cooperation has been greatly appreciated and should you have any questions concerning this matter please do not hesitate to call me at 219-237-5679, or you may call the responsible SQI engineer whose name and extension appear on the Part Submission Warrant Request. If you wish to contact me via fax, you may do so on 219-237-2086

Sincerely,

Paulette Stabugh
Sample Administrator

cc: File

TI-NHTSA 7714



AlliedSignal Inc.
Braking Systems-North America
401 N. Bendix Drive
P.O. Box 4001
South Bend, IN 46634-4001

219 237 2100

Part Submission Warrant Request

Date Initiated: 09/30/94 Warrant No: SBD42026 Initiated By: SOI
 Submission Level: 3: Warrant & Documents & Parts Delivered to ASBS Location
 Deliver To Attention: Tom Langa: 401 N. Bendix Drive: South Bend, Indiana 46620
 Number of Samples: 4 pieces
 Date Required: 11/25/94 Date Received: 11/17/94

PART #: 2234330 REV: A DATED: 09/14/94 DESCRIPTION: Assy - Pressure Switch SUPPLIER: Texas Instruments CODE: 88070 SURVEY SCORE: 82 (06/31/91) REASON FOR SUBMISSION: Initial Sample	NMR NO: GP-0259 & 80: EN-114 MC PRODUCT: Master Cylinder (80) CUSTOMER: Ford Motor Company ASBS USING PLANTS: Galatin (154)
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SOI Contact: Shawn Murdoch 219-237-2459

Buyer:

Expect. Meet Date:	Req'd. Yes/No	Approved Date	By	Selected Date	By
L. SUPPLIER INFORMATION REQUIRED					
A. Part Submission Warrant (AIAG - PPAP)	Yes	11/18	SPM		
B. Process Flow Chart	Yes	11/18	SPM		
C. Process FMEA (RPN 80-100: RPN >100:) Last Rev. Date: 01/10/94	Yes	11/18	SPM		
D. Control Plan Last Rev. Date: 01/10/94	Yes	11/18	SPM		
E. Dimensional Layout with Numbered Print	Yes	11/28	SPM		
F. Process Potential Study (Design Charac.)	Yes	11/18	SPM		
G. Material and Other Eng Spec Certification Spec: Compound #:	Yes	11/18	SPM		
H. Supplier Functional Testing	Yes	11/18	SPM		
J. Other (See Remarks in Section V.)	Yes	11/18	SPM		
M. ASBS FUNCTIONAL TESTING Last Test Date:	Yes				
NL. CFT APPROVING AUTHORITIES					
A. Product Engineering	No				
B. Plant Quality Engineering	No				
C. Plant Manufacturing Engineering	No				
IV. ASBS CUSTOMER APPROVAL (Other than ISW Ls. SREA, Black Box, etc.)	No				
V. REMARKS/SPECIAL INSTRUCTIONS (Design FMEA, Special Gages, Special Samples, Packages, Etc.)					
J. Need Production Readiness Assessment and must include 2000 pieces. Inspection plan per AS2001 sec. 2.					

Final Approval on This Form by ASBS Supply Base Management Authorities Release of Purchased Parts.
APPROVED: Shawn E. Murdoch **DATE:** 12/05/94
 For Recertification, Current Approval Expires 12/31/95

On time delivery? Yes Approved 1st time? Yes PPM: 0



AlliedSignal Inc. **Supplier Website - By Part Number**
 Braking Systems-North America
 401 N. Deerpark Dr.
 P.O. Box 4001
 South Bend, IN 46634-4001

RETURN POSTAGE GUARANTEED

SOUTH BEND IN 46634
 APR 16 1996
 04/16/96 PM

Attention: ~~Michael J. Lapointe~~
 Texas Instruments
 34 Forest Street
 Attleboro, Massachusetts 02763

12-27



TI-NHTSA 7716



**TEXAS
INSTRUMENTS**

November 15, 1994

Allied Signal Inc.
Braking Systems-North America
401 N. Bendix Drive
P.O. Box 4001
South Bend, In. 46634-4001

Attn: Mr. Shawn Murdoch
Supplier Quality Improvement

Subj: Part Submission Warrant (PSW) Part No. 2234330
Pressure Switch (TI p.n. 77PSL3-1)
ASBS Using Plant: Gallatin (154)

Ref: My 11/14/94 Telephone Call

Dear Shawn,

Enclosed, please find the Parts Submission Warrant (PSW) for the pressure switch no. 2234330.
Four switches are included in the submission, instead of eight as previously coordinated.

Please let me know if you have any questions. I can be reached at (508) 236-1719.

Regards,



Tim Watt
QRA Engineer
Precision Controls Department

encl: Parts Submission Warrant (PSW)

cc: Tim Spooner, MS 12-13; Gary Snyder, MS 12-33
Norm Freda, TI-FSE, Novi, Michigan
Andy McGuirk, MS 12-27

October 5, 1994

Texas Instruments
34 Forest Street
Attleboro, Massachusetts 02703

ATTENTION: Jim Watt
Tel #: 508-699-3090 Fax #: 508-699-3153

SUBJECT: Sample Submission Requirements, Dates, and Quantities
Initial Sample on SSW # SBD42026
Part No. 2234330 - Revision A - Dated 09/14/94
Description: Assy - Pressure Switch

F2AL-9F904-AA

This letter is your notification that a sample submission is required on the subject part number. As an ASBS supplier you have been given AS2000 Supplier Quality Requirements Manual, which identifies the supplier's responsibilities. The specific sample requirements for the subject part are identified on the attached Part Submission Warrant Request. These requirements should be submitted in accordance with Attachment A.

Submission requirements are as follows.

Submission Level 3: Warrant & Documents & Parts Delivered to ASBS Location.

Number of sample parts required: 4

Submission date: On or before 11/23/94.

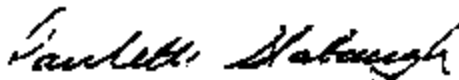
If delivered to ASBS, clearly identify all sample submissions and related documentation. If piece parts are required please label the container with the enclosed orange sample labels and deliver to:

ATTENTION: Tom Lange
AlliedSignal Braking Systems
401 North Bendix Drive
South Bend, Indiana 46620

2 N/A ?

Should you have any questions, please call me at 219-237-5679, or you may call the responsible SQI engineer whose name and extension appear on the Part Submission Warrant Request. If you wish to contact me via fax, you may do so on 219-237-2086.

Sincerely,



Pamela Slabough
Sample Administrator

cc: File

TI-NHTSA 7710



AlliedSignal Inc.
Braking Systems North America
401 N. Bendix Drive
P.O. Box 4001
South Bend, IN 46634-4001

219 237 2100

Part Submission Warrant Request

Date Initiated: 09/30/94 Warrant No: SBD42028 Initiated By: SQI
 Submission Level: 3: Warrant & Documents & Parts Delivered to ASBS Location
 Deliver To Attention: Tom Lange: 401 N. Bendix Drive: South Bend, Indiana 46820
 Number of Samples: 4 *PER SHOWS*
 Date Required: 11/25/94 *11-1-94* Date Received:

PART #: 2234330 REV: A DATED: 08/14/94 DESCRIPTION: Assy - Pressure Switch SUPPLIER: Texas Instruments CODE: 89070 SURVEY SCORE: 82 (05/31/91) REASON FOR SUBMISSION: Initial Sample	NIR NO: GP-0258 & 60: EN-114 M/C PRODUCT: Master Cylinder (RQ) CUSTOMER: Ford Motor Company ASBS USING PLANTS: Galatin (164)
--	--

SQI Contact: Shawn Murdoch 219-237-9499

Buyer:

Expect. Meet Date:	Rec'd Yes/No	Approved Date By	Rejected Date By
I. SUPPLIER INFORMATION REQUIRED			
A. Part Submission Warrant (AIAG - PPAP)	Yes		
B. Process Flow Chart	Yes		
C. Process FMEA (RPN 80-100: RPN >100:) Last Rev. Date: <u>1/10/99</u>	Yes		
D. Control Plan Last Rev. Date: <u>1/10/99</u>	Yes		
E. Dimensional Layout with Numbered Print	Yes		
F. Process Potential Study (Design Charac.)	Yes		
G. Material and Other Eng Spec Certification Spec: Compound 8:	Yes		
H. Supplier Functional Testing	Yes		
J. Other (See Remarks in Section V.)	Yes		
II. ASBS FUNCTIONAL TESTING			
Last Test Date: <u>6/24 Switch 100% Functional Tested</u>	Yes		
III. CPT APPROVING AUTHORITIES			
A. Product Engineering	No		
B. Plant Quality Engineering	No		
C. Plant Manufacturing Engineering	No		
IV. ASBS CUSTOMER APPROVAL			
(Other than ISW i.e. SREA, Black Box, etc.)	No		
V. REMARKS/SPECIAL INSTRUCTIONS (Design FMEA, Special Gages, Special Samples, Packages, Etc.)			
J. <u>Need Production Readiness Assessment and must include 2000 pieces. Inspection plan per AS2000 sec. 2.</u>			

Final Approval on This Form by ASBS Supply Base Management Authorizes Release of Purchased Parts.
APPROVED: _____ **DATE:** _____
 For Recertification, Current Approval Expires

On time delivery? Approved 1st time?

PPM:

POSTNET SOUTH BEND IN 46601 10/06/94



AlliedSignal Inc.
Braking Systems-North America
101 N. Bendix Drive
P.O. Box 1001
South Bend, IN 46601-1001
RECEIVED 10/06/94

Texas Instruments
34 Forest Street
Attleboro, Massachusetts 02703

Attention: Elaine Rose

TI-NHTSA 7721





AlliedSignal Inc.
Braking Systems-North America
401 N. Bendix Drive
P.O. Box 4001
South Bend, IN 46634-4001

219 237 2100

October 5, 1994

Texas Instruments
34 Forest Street
Attleboro, Massachusetts 02703

ATTENTION: Jim Watt
Tel #: 508-699-3090 Fax #: 508-699-3153

SUBJECT: Sample Submission Requirements, Dates, and Quantities
Initial Sample on SSW # SHD42026
Part No. 2234330 - Revision A - Dated 09/14/94
Description: Assy - Pressure Switch

This letter is your notification that a sample submission is required on the subject part number. As an ASBS supplier you have been given AS2000 Supplier Quality Requirements Manual, which identifies the supplier's responsibilities. The specific sample requirements for the subject part are identified on the attached Part Submission Warrant Request. These requirements should be submitted in accordance with Attachment A.

Submission requirements are as follows:

Submission Level 3: Warrant & Documents & Parts Delivered to ASBS Location.
Number of sample parts required: ~~8~~ 4
Submission date: On or before 11/23/94.

If delivered to ASBS, clearly identify all sample submissions and related documentation. If piece parts are required please label the container with the enclosed orange sample labels and deliver to:

ATTENTION: Tom Lange
AlliedSignal Braking Systems
401 North Bendix Drive
South Bend, Indiana 46620

N/A

Should you have any questions, please call me at 219-237-5679, or you may call the responsible SQI engineer whose name and extension appear on the Part Submission Warrant Request. If you wish to contact me via fax, you may do so on 219-237-2086.

Sincerely,

Paulette Slabough
Sample Administrator

cc: File

TI-NHTSA 7722



AlliedSignal Inc.
Braking Systems North America
401 N. Bendlin Drive
P.O. Box 4001
South Bend, IN 46634-4001
RETURN POSTAGE GUARANTEED

Texas Instruments
34 Forest Street
Attleboro, Massachusetts 01703

Attention: Elaine Rose

2-21

*cop shared
per / review for submission
great
11/17/94*

TI-NHTSA 7723



Part Name <u>Assy - Pressure Switch</u>		Part Number <u>2234330</u>	
Safety and/or Government Regulation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Engineering Drawing change level <u>A</u>	Dated <u>09/14/94</u>
Additional Engineering Changes <u>N/A</u>		Dated <u>N/A</u>	
Shown on Drawing No. <u>2234330</u>	Purchase Order No. <u>N/A</u>	Weight <u>0.3</u> lbs.	
Checking Aid No. <u>N/A</u>	Engineering Change level <u>N/A</u>	Dated <u>N/A</u>	

SUPPLIER MANUFACTURING INFORMATION <u>Texas Instruments 89070</u> <small>Supplier Name Supplier Code</small> <u>34 Forest St. ms 12-27</u> <u>P.O. Box 2964</u> <small>Street Address</small> <u>ATT. MA. 02702-0964</u> <small>City/State/Postal Code</small>	SUBMISSION INFORMATION <input checked="" type="checkbox"/> Dimensional <input checked="" type="checkbox"/> Material/Functional <input checked="" type="checkbox"/> Appearance Customer Name/Division <u>Ford Motor Co</u> Buyer/Buyer Code <u>N/A</u> Application <u>Master Cylinder</u>
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REASON FOR SUBMISSION

<input checked="" type="checkbox"/> Initial submission	<input type="checkbox"/> Change in Optional Construction or Material
<input type="checkbox"/> Engineering Change(s)	<input type="checkbox"/> Sub-Supplier or Material Source Change
<input type="checkbox"/> Tooling Transfer, Replacement, Refurbishment, or additional	<input type="checkbox"/> Change in Part Processing
<input type="checkbox"/> Correction of Discrepancy	<input type="checkbox"/> Part Produced at Additional Location
<input type="checkbox"/> Other - please specify _____	

REQUESTED SUBMISSION LEVEL (Check one)

- Level 1 - Warrant, Appearance Approval Report (for designated applications items only).
- Level 2 - Warrant, Parts, Drawings, Inspection Results, Laboratory and Functional Results, Appearance Approval Report
- Level 3 - At Customer Location - Warrant, Parts, Drawings, Inspection Results, Laboratory and Functional Results, Appearance Approval Report, Process Capability Results, Capability Study, Process Control Plan, Gage Study, FMEA.
- Level 4 - Per Level 3, but without parts.
- Level 5 - At Supplier Location - Warrant, Parts, Drawings, Inspection Results, Laboratory and Functional Results, Appearance Approval Report, Process Capability Results, Capability Study, Process Control Plan, Gage Study, FMEA.

SUBMISSION RESULTS

The results for dimensional measurements material and functional tests and appearance criteria and statistical process package meet all drawing and specification requirements: Yes No (If "No" - Explanation Required)

DECLARATION

I affirm that the samples represented by this warrant are representative of our parts and have been made to the applicable customer drawings and specifications and in the case of production samples, are made from specified materials on regular production tooling with no exceptions other than the regular production process. I have noted any deviations from this declaration below:

EXPLANATION/COMMENTS: Note: NO ORANGE Sample Labels were received.

Print Name J. WATT Title QA ENG. Phone No. 508-236-1719

Supplier Authorized Signature _____ Date _____

FOR CUSTOMER USE ONLY		
Part Disposition	<input type="checkbox"/> Approved <input type="checkbox"/> Rejected <input type="checkbox"/> Other	
Customer Name _____	Customer Signature _____	Date _____

Part Submission Warrant Request

Date Initiated: 09/30/94 Warrant No: SE042020 Initiated By: SOI
 Submission Level: Warrant & Documents & Parts Delivered to ABS Location
 Deliver To Attention: Tom Lange, 401 N. Bendix Drive, South Bend, Indiana 46820
 Number of Samples: 5⁴
 Date Required: 11/25/94 Date Received:

PART #: <u>2234330</u> REV: <u>A</u> DATED: <u>09/14/94</u> DESCRIPTION: <u>Assy - Pressure Switch</u> SUPPLIER: <u>Texco Instruments</u> CODE: <u>89070</u> SURVEY SCORE: <u>82 (05/31/91)</u> REASON FOR SUBMISSION: <u>Initial Sample</u>	NMR NO: <u>GP-0259 & 50-EN-114 MC</u> PRODUCT: <u>Master Cylinder (80)</u> CUSTOMER: <u>Ford Motor Company</u> ABS USING PLANTS: <u>Gallatin (154)</u>
---	--

SOI Contact: Shawn Merrill 219-237-2438

Buyer:

Expect. Meet Date:	Req'd Yes/No	Approved Date	By	Rejected Date	By
I. SUPPLIER INFORMATION REQUIRED					
A. Part Submission Warrant (AIAG - PPAP)	Yes				
B. Process Flow Chart	Yes				
C. Process FMEA (RPN 50-100; RPN >100;) Last Rev. Date:	Yes				
D. Control Plan Last Rev. Date:	Yes				
E. Dimensional Layout with Numbered Print	Yes				
F. Process Potential Study (Design, Charac.)	Yes				
G. Material and Other Eng Spec Certification Spec: Compound #:	Yes				
H. Supplier Functional Testing	Yes				
J. Other (See Remarks in Section V.)	Yes				
II. ABS FUNCTIONAL TESTING Last Test Date:	Yes				
III. OBT APPROVING AUTHORITIES					
A. Product Engineering	No				
B. Plant Quality Engineering	No				
C. Plant Manufacturing Engineering	No				
IV. ABS CUSTOMER APPROVAL (Other than ISW i.e. SREA, Black Box, etc.)	No				
V. REMARKS/SPECIAL INSTRUCTIONS (Design FMEA, Special Gages, Special Samples, Packages, Etc.)					
J. <u>Need Production Readiness Assessment and must include 2000 pieces. Inspection plan per AS2000 sec. 2.</u>					

Final Approval on This Form by ABS Supply Base Management Authorizes Release of Purchased Parts.

APPROVED: _____ DATE: _____

For Reservation, Current Approval Expires

On time delivery? Approved 1st time?

PPM:

WARRANT

TI-NHTSA 7726

Part Name <u>ASST.-PRESSURE SWITCH</u>		Part Number <u>2234330</u>	
Safety and/or Compliance Requirement <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Engineering Drawing change level <u>A</u>	Dated <u>09/14/94</u> Additional Engineering Changes <u>N/A</u>		Dated <u>N/A</u>
Shown on Drawing No. <u>2234330</u>	Purchase Order No. <u>N/A</u>	Weight <u>-063</u>	Kg.
Drawing Ref No. <u>N/A</u>	Engineering Change level <u>N/A</u>	Dated <u>N/A</u>	

SUPPLIER MANUFACTURING INFORMATION <u>TEXAS INSTRUMENTS, INC.</u> <u>89070</u> <small>Supplier Code</small> <u>54 FOREST ST.</u> <u>Box 12-27</u> <u>P.O. BOX 2964</u> <small>Street Address</small> <u>ATLANTA, GA 30303-0964</u> <small>City/State/Zip Code</small>	SUBMISSION INFORMATION <input checked="" type="checkbox"/> Dimensional <input checked="" type="checkbox"/> Material/Functional <input checked="" type="checkbox"/> Appearance Customer Name/Division <u>FORD MOTOR CO.</u> Buyer/Supplier Code <u>N/A</u> Application <u>MASTER CYLINDER</u>
---	---

REASON FOR SUBMISSION

<input checked="" type="checkbox"/> Initial submission	<input type="checkbox"/> Change in Optional Construction or Material
<input type="checkbox"/> Engineering Change(s)	<input type="checkbox"/> Sub-Supplier or Material Source Change
<input type="checkbox"/> Tooling Transfer, Replacement, Rehabilitation, or additional	<input type="checkbox"/> Change in Part Processing
<input type="checkbox"/> Correction of Discrepancy	<input type="checkbox"/> Parts Produced at Additional Location
<input type="checkbox"/> Other - please specify _____	

REQUESTED SUBMISSION LEVEL (Check one)

Level 1 - Waiver, Appearance Approval Report (for designated appearance items only).

Level 2 - Waiver, Parts, Drawings, Inspection Results, Laboratory and Functional Results, Appearance Approval Report

Level 3 - At Customer Location - Waiver, Parts, Drawings, Inspection Results, Laboratory and Functional Results, Appearance Approval Report, Process Capability Results, Capability Study, Process Control Plan, Gage Study, PMSA.

Level 4 - Per Level 3, but without parts.

Level 5 - At Supplier Location - Waiver, Parts, Drawings, Inspection Results, Laboratory and Functional Results, Appearance Approval Report, Process Capability Results, Capability Study, Process Control Plan, Gage Study, PMSA.

SUBMISSION RESULTS

The results for dimensional requirements material and functional tests and appearance criteria and electrical product package meet all drawing and specification requirements: Yes No (If Yes - Explanation Required)

DECLARATION

I advise that the samples represented by this warrant are representative of our parts and have been made to the applicable customer drawings and specifications and in the case of production samples, are made from specified materials on regular production tooling with no operations other than the regular production process. I have noted any deviations from this declaration below:

EXPLANATION/COMMENTS: NOTE: no orange sample labels were received.

Print Name J. WATT Title QA ENGINEER Phone No. (505)236-1719

Supplier Authorized Signature [Signature] Date 11/1/94

FOR CUSTOMER USE ONLY		
Part Description	<input type="checkbox"/> Approved	<input type="checkbox"/> Rejected
Customer Name	Customer Signature	Date



34 Forest Street
P.O. Box 2384
Andover, MA 02703-0364
(603) 235-3800

November 28, 1994

Allied Signal Inc.
Braking Systems-North America
401 N. Bendix Drive
P.O. Box 4001
South Bend, In. 46634-4001

Attn: Mr. Shawn Murdoch
Supplier Quality Improvement

Subj: Part Submission Warrant (PSW) Part No. 2234330 Amended Dimensional Layout
Pressure Switch (TI p.n. 77PSL3-1)
ASBS Using Plant: Gallatin (154)

Ref: My 11/28/94 Telephone Call

Dear Shawn,

Enclosed, please find the amended dimensional layout for the Parts Submission Warrant (PSW) for the pressure switch no. 2234330. The amended document provides additional information that should improve clarity of communications for the dimensional layout. Also included is a copy of the Production Readiness Summary for the pressure switch, and a summary of the Cpk for the calibration of the switch (Cpk of 2.28) as you had requested.

Please let me know if you have any questions. I can be reached at (508) 236-1719.

Regards,


Jim Watt
QRA Engineer
Precision Controls Department

encl: Amended Dimensional Layout For Parts Submission Warrant (PSW)
Production Readiness Summary
Cpk Summary (Calibration)

cc: Tim Spooner, MS 12-33; Gary Snyder, MS 12-33
Norm Freda, TI-PSE, Novi, Michigan
Andy McGuirk, MS 12-27

TI-NHTSA 7728

DIMENSIONAL RESULTS						
SUPPLEMENTAL MEASUREMENTS, INC.						
ALLIED SIGNAL PIN 225638 - FORD PIN F240-2P25-AA						
ASSY. PRESSURE SWITCH						
SP. C. #	DIMENSION	CAV. # A	CAV. # B	CAV. # C	CAV. # D	PASS/FAIL
1	2.59-2.60 2x	2.685	2.671	2.687	2.672	(Width of terminal #1)
	1.69-2.71 2x	2.483	2.485	2.603	2.437	(Actual T/P Readings)
	(To Datum -A-)	0.012	0.02	0.138	0.028	(True Position of #1)
		2.691	2.67	2.66	2.632	(Width of terminal #2)
		2.52	2.364	2.271	2.344	(Actual T/P Readings)
	(To Datum -A-)	0.144	0.101	0.184	0.121	(True Position of #2)
	SECTION C-C	0	-	-	-	(To Datum C Terminal #1)
	SECTION D-D	0.144	-	-	-	(To Datum C Terminal #2)
2	COLOR: NATURAL	YES	YES	YES	YES	
3	6.30-6.72 2x	6.477	6.682	6.484	6.557	
		6.494	6.457	6.651	6.62	
4	25DEG.+30DEG 2x	240 18'	240 02'	240 40'	240 28'	
		240 39'	260 08'	240 09'	240 30'	
5	16.66-16.76	16.68	16.67	16.66	16.68	
6	2.84-3.05	2.948	2.928	2.934	2.926	(Width of TAB)
	(To Datum -A-)	0.081	0.083	0.06	0.061	(True Position of TAB)
	1.650.1.65 actual	3.363	3.363	3.286	3.382	(Actual T/P Readings)
7	11.40-11.80	11.767	11.782	11.779	11.787	
8	16.46-16.84	16.74	16.79	16.78	16.78	
9	1.65-2.08	1.833	1.868	2.017	1.886	
10	1.24-1.58	1.389	1.408	1.407	1.418	
11	6.60-6.81	6.7	6.681	6.702	6.717	
12	11.60-11.92	11.785	11.788	11.782	11.774	
13	28-78 2x	474 .487	489 .578	484 .484	473 .515	
14	2.75-3.10 2x	2.908	2.909	2.907	2.908	
		2.908	2.9	2.9	2.914	
16	19.06 MAX	18.782	18.64	18.831	18.886	
18	1.24-1.46	1.307	1.304	1.27	1.268	
17	NO FLASH/BURRS	OK	OK	OK	OK	
18	2.75-3.41	3.107	3.182	3.182	3.121	
19	68-1.30	1.187	1.18	1.193	1.122	
20	11.65-12.17 2x	11.853	11.87	11.875	11.817	
		11.872	11.881	11.806	11.782	
21	12.68-13.11 2x	12.784	12.774	12.766	12.826	
		12.888	12.916	12.916	12.84	
22	57.15 MAX	55.86	55.86	55.87	56.94	
23	8.38-8.68	8.6	8.68	8.547	8.588	
24	8.12 MIN	8.308	8.28	8.59	8.504	
26	14.23 MAX	13.85	13.752	13.802	13.814	
26	1.82-2.04	1.824	1.824	1.838	1.768	
27	7.82-8.03	7.88	8	8	7.98	
28	40-80DEG CHAMP.	430 80'	SECTIONED PART			
29	1.10-1.40	1.173	1.262	1.203	1.28	
30	41-43DEG	410 39'	SECTIONED PART			
31	7.19.18 D	0.127	0.125	0.126	0.127	(RMS readings)
	2.5 x 5 = .090	50√	22√	80√	50√	(values in microinches)
32	36-24RNF-2ATHD	OK	OK	OK	OK	
	SEE NOTE ON 3A	-	-	-	-	
33	D.O. PART #	OK	OK	OK	OK	
34	6.66-6.68	6.608	6.634	6.634	6.588	
36	7.23-7.37	7.387	7.38	7.321	7.378	
36	3.30-3.60	3.44	3.483	3.433	3.46	
37	14.02-14.63 HEX	14.283	14.216	14.214	14.248	

30	32.51 MAX	31.77	31.75	31.75	31.8				
30	0.69-0.69 2PL	0.634	0.644	0.632	0.642				
		0.654	0.655	0.65	0.653			0. Watt	11/24/04

DIMENSIONAL RESULTS						
SUPPLIES/Texas Instruments, Inc.						
ALLIED SIGNAL P/N 283428 - PORD P/N P2AC-0924-AA						
ASSY. PRESSURE SWITCH						
SPEC. #	DIMENSION	CAV. # A	CAV. # B	CAV. # C	CAV. # D	PASS/FAL
1	2.80-2.80 2x	2.808	2.871	2.887	2.872	
	2.80AC	2.483	2.486	2.803	2.437	
	-A-	0.012	0.02	0.136	0.028	
		2.891	2.87	2.88	2.832	
	ACTUAL	2.32	2.384	2.271	2.344	
	-A-	0.144	0.101	0.154	0.121	
	SECTION - C-	0	-	-	-	
	SECTION - C-	0.144	-	-	-	
2	COLO/NATURAL	YES	YES	YES	YES	
3	8.50-8.72 2x	8.477	8.682	8.484	8.687	
		8.484	8.487	8.681	8.62	
4	28DEG-4.3080 2x	240 18	240 02	240 40	240 28	
		240 38	250 08	240 08	240 30	
5	18.86-18.78	18.88	18.87	18.88	18.89	
6	2.84-3.08	2.848	2.828	2.824	2.828	
	50.10A actual	3.353	3.355	3.288	3.382	
7	11.40-11.80	11.787	11.782	11.778	11.787	
8	18.48-18.84	18.74	18.78	18.78	18.78	
9	1.88-2.08	1.889	1.883	2.017	1.888	
10	1.24-1.38	1.388	1.408	1.407	1.418	
11	8.80-8.81	8.7	8.881	8.782	8.717	
12	11.80-11.82	11.788	11.788	11.782	11.774	
13	28.78 2x	474.487	488.876	484.484	473.818	
14	2.78-3.10 2x	2.808	2.928	2.927	2.888	
		2.928	2.9	2.9	2.914	
15	18.08 MAX	18.782	18.84	18.821	18.888	
16	1.24-1.48	1.307	1.304	1.27	1.288	
17	NO FLASH/NOT	OK	OK	OK	OK	
18	2.78-3.41	3.107	3.182	3.182	3.181	
19	88-1.80	1.187	1.18	1.183	1.122	
20	11.88-12.17 2x	11.883	11.87	11.878	11.817	
		11.872	11.881	11.888	11.782	
21	12.08-13.11 2x	12.784	12.774	12.788	12.828	
		12.888	12.818	12.818	12.84	
22	87.18 MAX	88.88	88.88	88.87	88.84	
23	8.88-8.88	8.8	8.88	8.847	8.888	
24	8.12 MIN	8.308	8.28	8.28	8.304	
25	14.28 MAX	13.88	13.782	13.802	13.814	
26	1.28-2.04	1.822	1.824	1.838	1.788	
27	7.82-8.88	7.88	8	8	7.88	
28	40-80DEG CHAMP.	430 87	SECTIONED PART			
29	1.10-1.40	1.173	1.282	1.283	1.28	
30	41-48080	410 38	SECTIONED PART			
31	+ 0.18 D					
	2.87 ± .08	80 ±	28 ±	80 ±	80 ±	
32	38-38UM-2ATHD	OK	OK	OK	OK	
	SEE NOTE ON 3A	-	-	-	-	
33	D.C. & PART #	OK	OK	OK	OK	
34	8.88-8.88	8.888	8.834	8.834	8.888	
35	7.23-7.37	7.307	7.38	7.321	7.378	
36	3.30-3.60	3.44	3.488	3.433	3.48	
37	14.08-14.88 MAX	14.283	14.218	14.214	14.248	
38	32.81 MAX	31.77	31.78	31.78	31.8	
39	0.88-0.88 2PL	0.884	0.844	0.852	0.842	
		0.884	0.888	0.88	0.883	

082/11-84

