

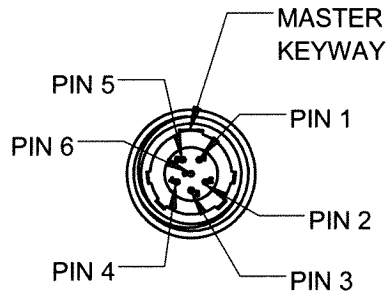
PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DYTRAN INSTRUMENTS INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DYTRAN INSTRUMENTS INC. IS PROHIBITED

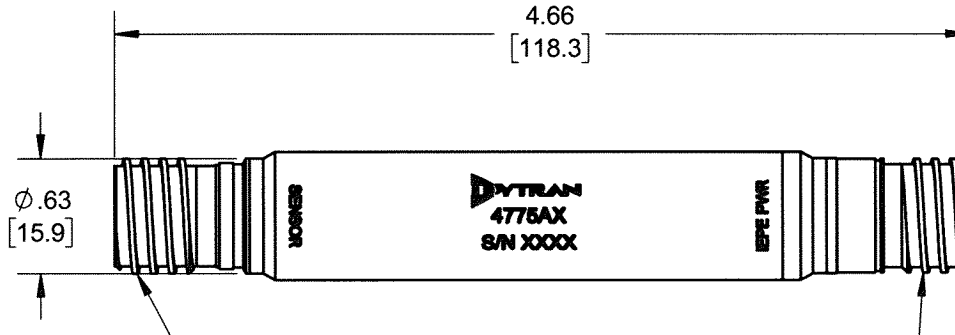
REVISIONS

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
A	14040	INITIAL RELEASE. SAME AS REV X2.	KG 04/19/18	LN	AS

MODEL	SENSITIVITY
4775A1	0.1 mV/pC
4775A2	1.0 mV/pC
4775A3	5.0 mV/pC
4775A4	10 mV/pC

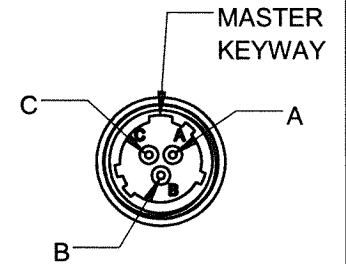


- PIN 1 - (+) INPUT
- PIN 2 - (-) INPUT
- PIN 3 - CASE GND
- PIN 4 - N/C
- PIN 5 - N/C
- PIN 6 - N/C



CONNECTOR, 6-PIN,
D38999/25YA35PN
MATES WITH
D38999/26WA35SN

CONNECTOR,
3-PIN, D38999/25YA98PA
MATES WITH
D38999/26KA98SA



- PIN A - CASE GND
- PIN B - GND/RET
- PIN C - SIG/PWR

2. MATERIAL: 300 SERIES STAINLESS STEEL

1. WEIGHT: 108 GRAMS, MAX.

USED ON	NEXT ASSY	UNLESS OTHERWISE SPECIFIED: INTERPRET DIM & TOL PER ASME Y14.5M - 1994. REMOVE BURRS. COUNTERSINK INTERNAL THDS 90° TO MAJOR DIA. CHAM EXT THDS 45° TO MINOR DIA. THD LENGTHS AND DEPTHS ARE FOR MIN FULL THDS. THDS PER MIL-S-7742. DIMENSIONS APPLY AFTER FINISHING.
APPLICATION		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. DIMENSIONS IN BRACKETS [] ARE IN MILLIMETERS TOLERANCES ARE: INCHES METRIC ANGLES .XX ± .03 X ± 0.8 ± 1° .XXX ± .010 .XX ± 0.25
THIRD ANGLE PROJECTION USA		MATERIAL
		FINISH
ALL MACHINED SURFACES. $\sqrt{63}$ TOTAL RUNOUT WITHIN .005. BREAK SHARP EDGES .005 TO .010. MACHINED FILLET RADII .005 TO .015. WELDING SYMBOLS PER AWS A2.4. ABBREVIATIONS PER MIL-STD-12.		DO NOT SCALE DRAWING

CONTRACT NO.



TITLE: **OUTLINE/INSTALLATION DWG,
DIFFERENTIAL CHARGE AMPLIFIER,
4775A SERIES**

APPROVALS		DATE
ORIG	KG	02/28/18
CHK	LN	4/26/18
APP	AS	5/1/18
APP		

SIZE	CAGE CODE	DWG. NO.	REV
A	2W033	127-4775A1	A
SCALE: 1:1		SOLIDWORKS	SHEET 1 OF 1

Model Number 4775A3	PERFORMANCE SPECIFICATION	DOC NO PS4775A3
	CHARGE AMPLIFIER, IN-LINE	REV C, ECN 15177, 06/27/19



- FOR ULTRA HIGH TEMP SENSORS
- DIFFERENTIAL INPUT
- LOW POWER
- TOLERATES LOW CURRENT & LOW INSULATION RESISTANCE FROM SENSORS

PHYSICAL

		ENGLISH		SI	
Weight, Max		3.8	oz	108	grams
Input Connector [1]	Type	6-pin		6-pin	
Output Connector [2]	Type	3-pin		3-pin	
Housing	Material	300 Series		300 Series	
	Isolation	Case Grounded		Case Grounded	

PERFORMANCE

		ENGLISH		SI	
Sensitivity, ±3% [3]		5.0	mV/pC	5.0	mV/pC
Input Range		1,000	pC	1,000	pC
Frequency Range, ±5%	2mA	5 to 10,000	Hz	5 to 10,000	Hz
Output Voltage Range		±5	Vp	±5	Vp
Non-Linearity [4]		±1%	%F.S.	±1%	%F.S.
Noise floor		100	µVrms	100	µVrms
Maximum Input Voltage		30	Vp	30	Vp
Minimum Source Resistance		50	kΩ	50	kΩ
Maximum Source Capacitance		20,000	pF	20,000	pF
Turn on Time (within 10% of bias)		<30	sec	<30	sec
Thermal Coefficient of Sensitivity, Max		0.01	%/°F	0.02	%/°C

ELECTRICAL

		ENGLISH		SI	
Supply Current Range [5]		2 to 20	mA	2 to 20	mA
Compliance Voltage Range		+18 to +30	VDC	+18 to +30	VDC
Output Impedance, Typ.		<100	Ω	<100	Ω
Output Bias Voltage		10 to 13	VDC	10 to 13	VDC
Discharge Time Constant		>0.1	sec	>0.1	sec

ENVIRONMENTAL

		ENGLISH		SI	
Shock Max		1,000	g pk	9,810	m/s ²
Vibration Max		300	g pk	2,943	m/s ²
Operating Temperature		-40 to +185	°F	-40 to +85	°C
Seal		Hermetic		Hermetic	

This family also includes:

Model	Sensitivity (mV/pC)	Range (pC)	Resolution (µVrms)	Oper. Temp(°F)	TC (sec)
4775A1	0.1	50,000	100	-40 to +185	>0.1
4775A2	1.0	5,000	100	-40 to +185	>0.1
4775A4	10	500	100	-40 to +185	>0.1

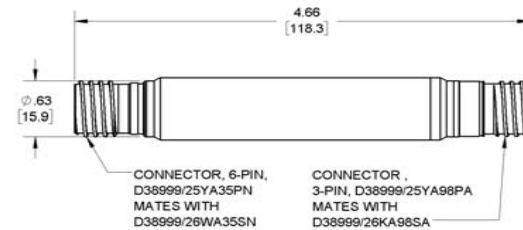
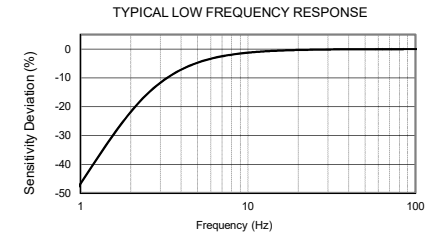
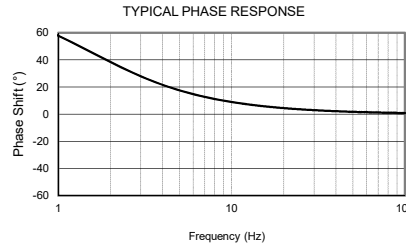
Refer to the performance specifications of the products in this family for detailed description

Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)

Notes:

- [1] D38999/25YA35PN connector plug, mates with D38999/26WA35SN
 - [2] D38999/25KA98PA connector receptacle, mates with D38999/26KA98SA
 - [3] Measured at 100 Hz, 1000 pC differential input per ISA RP 37.2.
 - [4] Percent of full scale or any lesser range, zero based best-fit straight line method.
 - [5] Do not apply power to this system without current limiting, 20 mA MAX. To do so will destroy the integral IC amplifier.
 - [6] In the interest of constant product improvement, we reserve the right to change specifications without notice.
- It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary overtime. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-4775A1 for more information.



21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax: 818.700.7880 www.dytran.com For permission to reprint this content, please contact info@dytran.com