

CUSTOMER : Burrup Fertilizers Pty. Ltd.
PROJECT : Burrup Fertilizers Project
SITE : Burrup Peninsula, Western Australia
P. O. NO. : 2003005
YOUR REF. NO. : M-0138. 00
TAG NO. : 103-MJ/MJT & 105-MJ/MJT
SERVICE NAME : Syn. Gas Compressor & Ammonia Ref. Compressor Trains

MPU

MITSUBISHI HEAVY INDUSTRIES, LTD.

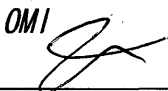

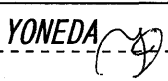
HIROSHIMA MACHINERY WORKS

A3x - SHEETS
A4x 7 SHEETS TOTAL 7 SHEETS (INCLUDING COVER)

PLAN RECORD
Please refer to the next page.

- COMMETN STATUS
- A: Not approval
 - B: Not approval fabrication may be proceeded
 - C: Approval with comments, new rev. is required
 - D: Approval with comments, new rev. is not required
 - E: Approval with no comment
 - F: No comment, reference only

TURBO MACHINERY ENGINEERING DEPT.
PLANT DESIGNING SECTION

APPROVED	OMI 
CHECKED	HORI 
PREPARED	YONEDA 

COPY TO	S	S	K	本	機	RS	ブ	電	メ	RS	ブ	夕	コ	SPECIFIED NO. S47C
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ORDER	ITEM	DATE DRAWN
353553	854610	Dec/23/03

REV. 

DRAWING NO.
724-45456

REVISION RECORD

REV. NO	DATE	REVISION ITEM	PREPARED	CHECKED	APPROVED	PM
Rev. 0	-	ORIGINAL ISSUE.	-	-	-	-

MESSRS. MITSUBISHI HEAVY INDUSTRIES CO., LTD.

SPECIFICATIONS for PICKUP

Date: Feb. 6, 2004

SPECIFICATION

(1) Pickup

MATERIAL OF BODY : Housing: 303 stainless steel. Potting: Epoxy resin
POLARITY : White lead positive. Green Lead wire should be grounded.
DESIGN TEMPERATURE : -65--+100 °C
OUTPUT VOLTAGE : 57-105 V (P-P). Max. Current: 0.05 A
DC RESISTANCE : 185-225 Ω
INDUCTANCE : 30 mH ref. at 6 V RMS, 1K Hz
INSULATION RESISTANCE : 100M Ω Min. at 500 V DC between coil and housing
MOUNTING THREAD : 3/4"-20 UNEF-2A thread
LEAD WIRE : 3 m length. #18AWG
QUALIFICATION : UL & CSA
 Class I, Div 1, Groups A, B, C and D.
 Class II, Div 1, Groups E, F, G. Temp Code T3C

ATEX

Category 3G Zone 2, EEx nA II T4U, -65 ≤ Tamb ≤ 100°C

TAG #.

SE-3193	SE-3293
SE-3194	SE-3294
SE-3195	SE-3295
SE-3197	SE-3297
SE-3198	SE-3298
SE-3199	SE-3299

NOTE			CHK' D	APP' D	DWG. NO.	TAK040206	2/3
					TYPE	SPECIFICATION	
			DRWN	CHK' D	SANTOH ENGINEERING CO., LTD		
			<i>[Signature]</i>	<i>[Signature]</i>			

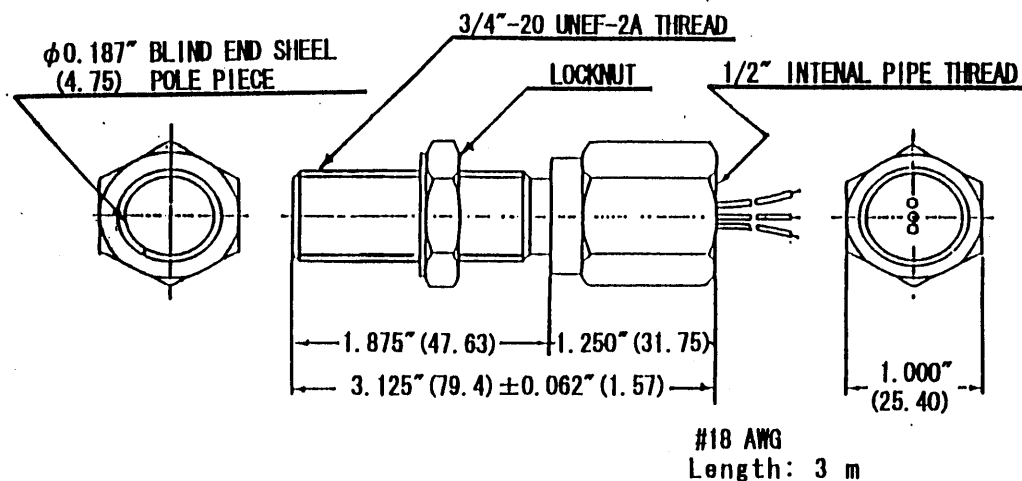
724-85856

MESSRS. MITSUBISHI HEAVY INDUSTRIES CO., LTD.

SPECIFICATIONS for PICKUP

Date: Feb. 6, 2004

PICKUP



inch (m/m)

*Black wire and white wire are signal output.
Green wire is used to ground PICKUP housing.

PICKUP

TAG NO. :
MODEL NO. : 70085-1010-005 (AI TEK made)
NET WEIGHT : 0.4 Kg

MATERIAL OF BODY : Housing: 303 stainless steel. Potting: Epoxy resin
POLARITY : White lead positive. Green Lead wire should be grounded.
DESIGN TEMPERATURE : -65--+100 °C
OUTPUT VOLTAGE : 57-105 V (P-P). Max. Current: 0.05 A
DC RESISTANCE : 185-225 Ω
INDUCTANCE : 30 mH ref. at 6 V RMS, 1K Hz
INSULATION RESISTANCE : 100M Ω Min. at 500 V DC between coil and housing
MOUNTING THREAD : 3/4"-20 UNEF-2A thread
LEAD WIRE : 3.03 m length. #18AWG
QUALIFICATION : UL & CSA
Class I, Div 1, Groups A, B, C and D.
Class II, Div 1, Groups E, F, G. Temp Code T3C

ATEX
Category 3G Zone 2, EEx nA II T4U, -65 ≤ Tamb ≤ 100°C

NOTE			CHK' D	APP' D	DWG. NO.	152-0052-3	3/3
					TYPE	PICKUP	
			DRWN	CHK' D	SANTOH ENGINEERING CO., LTD		
			<i>[Signature]</i>	<i>[Signature]</i>			

AI-TEK INSTRUMENTS, LLC

152 Knotter Drive • P.O. Box 748 • Cheshire, CT 06410
Telephone 203-271-6000 • 1-800-643-0643 • Fax 203-271-6200

To: All Distributors & OEM's
From: AI-TEK Instruments, LLC
Re: ATEX Directive

We have qualified to meet the requirements of group II of the ATEX Directive. The components listed below have been designed and constructed for operation in Category 3G Zone 2 areas.

They have been tested and approved for type of protection "n", per EN50021 and EN50014.

The following part numbers meet ATEX requirements:

70085-1010-005
70085-1010-081
70085-1010-327
70085-1010-328
70085-1010-329
70085-1010-330
70085-1010-333
70085-1010-411
70085-1010-412
70085-1010-413
70085-1010-414

All units are required to have a "Declaration of Compliance and Installation Instructions" sent with each lot of parts to all European customers. (See attached file).

The "Installation Instructions" document needs to be translated into the language of the customers' country. It is the responsibility of the distributor to effectuate this translation. American distributors should furnish translation for any foreign shipments.

AI-TEK will supply a copy of the declaration and instructions with each lot of sensors listed above.

This requirement comes directly from the general requirements of ATEX.

If you have any questions please contact the marketing department.

Thank you,



AI-TEK Instruments, LLC

EC DECLARATION OF CONFORMITY

MANUFACTURER:

AI-TEK Instruments, LLC
152 Knotter Drive
Cheshire, CT 06410-0748

Telephone: (203)271-6927
FAX: (203)271-6200

PRODUCT DESCRIPTION:

Models: 70085-1010-005, -081, -327, -328, -329, -330, 333, -411, -412, -413, and -414
are self generating, variable reluctance speed sensors.

Signal output amplitude is determined by the rotational speed of the steel target and the air gap between the sensor pole piece and the target.

Rated for continual operation to 100 °C ambient or mounting surface.

Fully encapsulant filled stainless steel housing isolates the sensor elements from the environment.

RELEVANT PROVISIONS

Essential Requirements (Annex II of ATEX Directive):

Common Requirements:

1. The component in Normal operation will not produce an arc or spark capable of causing ignition of a surrounding group II explosive atmosphere.
2. The operational temperature range is: -65 °C to +100 °C

Requirements for Equipment

1. The apparatus has been designed and constructed for operation in Category 3G, Zone2 areas, in accordance with the principles of good engineering practice.

929-85856
7/17

2. The output end of the stainless steel housing is designed with a 1/2" NPT thread to provide for conduit as required.
3. An Earthing conductor has been provided .
4. The integral lead wires are clamped by the encapsulant to prevent twisting or pulling during installation or use.
5. The apparatus is tested for dielectric at 1000 Vrms from the signal conductors combined, to the housing.

Requirements for Protective Systems:

Not applicable

HARMONIZED STANDARDS


EN 50021:1999 Electrical Apparatus for Potentially Explosive Atmospheres –
Type of Protection: 'n'

EU DIRECTIVE

ATEX Directive 94/9/EC

DECLARATION OF CONFORMITY

AI-TEK Instruments, LLC attests that this apparatus complies with the requirements of the above harmonized standard and the ATEX directive 94/9/EC for use in a Category 3 (gas) area when installed in a non-incendive field circuit per AI-TEK Installation Instruction 960-0101-001, The apparatus will be marked in compliance with the requirements:

 II 3G
 EEx nA II T4 U
 -65 ≤ Tamb ≤ 100°C

SIGNATORY

Len Mecca, Managing Director, Member: *Len Mecca* Date: 11/18/02

Joseph Hamed, Senior Product Engineer: *Joseph Hamed* Date: 11/18/02