SPECIFICATION

MANUAL SWIPE TYPE
MAGNETIC CARD READER
With TTL INTERFACE

(90mm Series)

IDR 1220

ISO-2 Track Read Only

IDENTICAL snc, Via Della Beverara 9, I-40131 Bologna (BO), info@identificationsolution.com, TEL: + 39 051 619 5706, FAX.: + 39 051 618 3154, http://www.identical.company

1. OVERVIEW

This specification describes the Electrical, Operational, Environmental and Mechanical requirements of the model IDR-1000 Series respectively. IDR hand swipe module for reading magnetically encoded data from cards with either high or low energy stripes that confirm to all ANSI/ISO track combination.

2. ABBREVIATIONS AND DEFINITIONS

ANSI	American National Standard Institute
ISO	International Standard Organization
BPI	Bit per Inch
IATA	International Air Transportation Association
ABA	American Banks Association
MINTS	Mutual Institutions National Transfer Systems
CPD	Card Present Detect
RCP	Read Clock Pulse
RDD	Read Data

3. CARD SPECIFICATION

The cards which is being used in IDR-1000 Series should be complied with ISO 7810, 7811 and 7812.

Track Position	ISO-1	ISO-2	ISO-3
Recording Density	210BPI	75BPI	210BPI
Recording Capacity	79characters(7bits)	40characters(5bits)	107characters(5bits)
Card Thickness	0.76mm +/-0.08mm		

4. ELECTRICAL REQUIREMENTS

a. Voltage and Ripple +5V(+3.0V~+5.5V), Less than 50mVp-p

b. Current : Stand-by 2.0mA/max. (400uA/3.0V)

Operation 2.5mA/max. (1.0mA/3.0V)

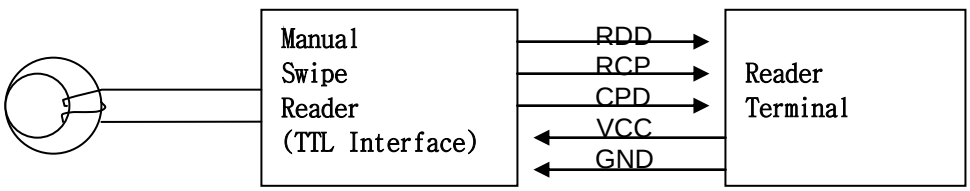
c. Output Levels High Level ⇒ 4.5V min. (Ioh = 8.0mA)

Low Level ⇒ 0.4V max. (Iol = 8.0mA)

d. Interface (Molex Connector 5264-0500, 5Pin 2.5mm Pitch)

Pin No.	Color	IDR 1220	Function
1	RED	VCC	Power Supply DC+3.0V~5.5V
2	BLACK	GROUND	Ground
3	YELLOW	CPD	Card Present Detect
4	ORANGE	RCP-2	ISO-2 Track, Read Clock Pulse
5	BROWN	RDD-2	ISO-2 Track, Read Data

e. Block Diagram and Output Signal



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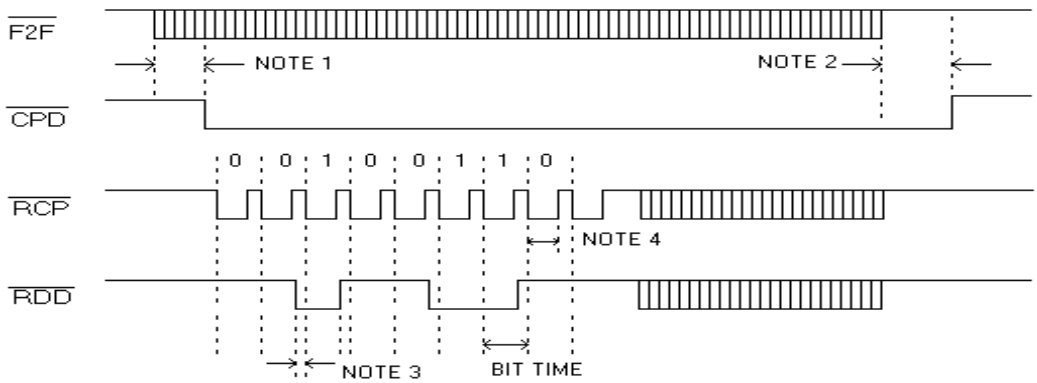
f. Timing Chart



NOTES :
1. 8 or 9 head flux reversals for low density configuration.
2. TIMEOUT of the CPD signal occurs approx. 20mSec. After last head signal transition.
3. The RDD is valid at 1.0μSec(min.) before the negative edge of the RCP.
4. The Low pulse width of RCP is approx. 70% of the bit time.

- RDD
  The DATA signal is valid while the RCP is low. If the RDD signal is high, the bit is zero, and if low, the bit is one(1).
- RCP
  The RCP signal indicates that RDD is valid. The RDD should be loaded by the user when the RCP signal goes low.(Negative edge)
- CPD
  Card Present will go low after the 8 or 9th flux reversal and it will return high when the 20mSec Approx. was elapsed.

  When no card is being moved through the unit, the RDD, RCP and CPD signals are high.

5. OPERATIONAL REQUIREMENTS

a. Installation	Indoors only
b. Performance	10 - 150 cm / sec
c. Head Reliability	500,000 passes
d. Error Rate	Less than 0.5 %
e. Noise Protection	Noise Interval 16msec/min.

6. ENVIRONMENTAL REQUIREMENTS

a. Temperature Range	-30°C ~ +60°C (Working) / -35°C ~ 75°C (Storage)
b. Humidity	90% relative humidity to 40°C. Non condensing.
c. Shock Resistance	10ms at 10G along the 3 axis .
d. Vibrations	0.2mm from 10 - 50 Hz along the 3 axes for 15 min.

7.MECHANICAL REQUIREMENTS

a. Weight	35g
b. Connector	Molex Connector 5264-0500
c. Cable length	180mm ±10mm
d. Dimension	***90.0mm (D) x 21.0mm (W) x 24.0mm (H)***

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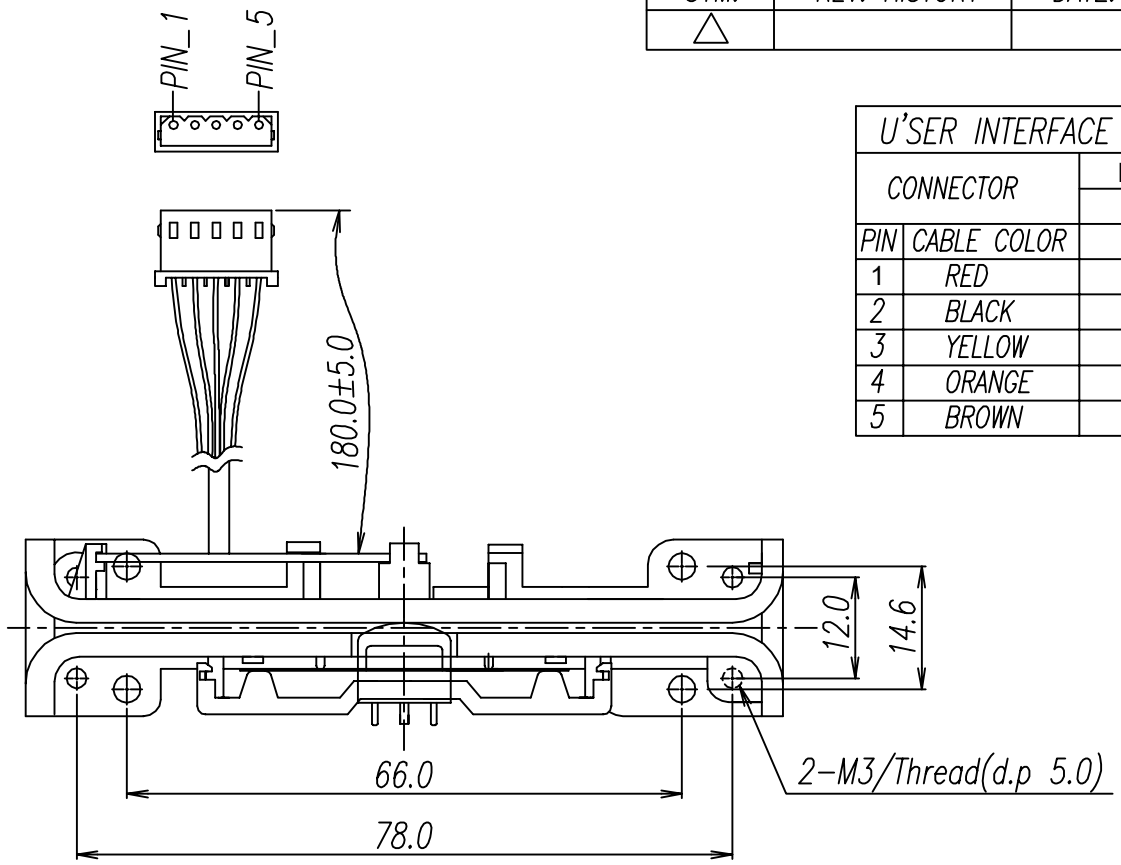
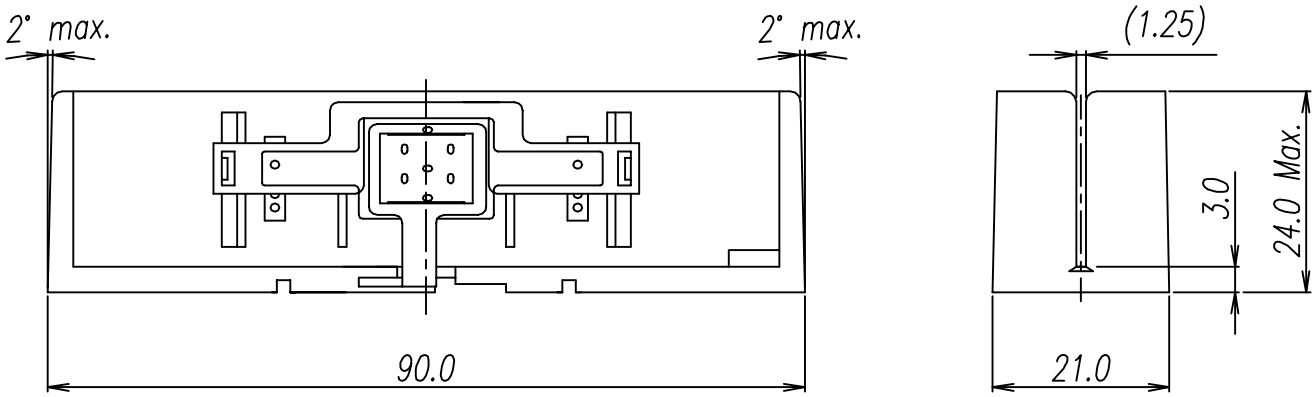
SYM.	REV. HISTORY	DATE.	APPROVAL
△			



U'SER INTERFACE SPECIFICATION		
CONNECTOR		Molex 5264-0500
PIN	CABLE COLOR	SIGNAL NAME
1	RED	VCC DC+5V
2	BLACK	GROUND
3	YELLOW	CPD-2
4	ORANGE	RCP-2
5	BROWN	RDD-2



NOTE

1. INTERFACE CONNECTION REFER TO SPEC.
2. CABLE : UL1007/AWG28

O.	PART NO.	DESCRIPTION	Q'TY.	SPECIFICATION.	REMARK.
Material	–		FINISH	–	

TOLERANCE(±) UNIT (MM)		1~4	5~16	17~63	64~250	~251 1000
		0.05	0.07	0.10	0.2	
	B	0.10	0.20	0.3	0.5	0.8
	C	0.25	0.35	0.5	0.7	1.5

THIRD ANGLE DRAW	SCALE.	N / S	REV.	_A
	DATE.	2004.03.22		

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Y. .			N.W.PARK
004.03.22			2004.03.22

TITLE.	OVERALL DIMENSION D	
MODEL.		
DWG. NO.		SHEET 1 of 1

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