

Transducer Model

- Accuracy Class 0.5
- Insensitive to Shocks and Vibrations
- Scale and Indicator illumination
- Configurable for all transducer output ranges

Data Sheet

Analogue Meter with
Digital Movement



APPLICATION

DIGIMOV has been developed mainly for the Industrial applications with highly precise analog display range.

High resistant to shock and vibration particularly suitable for marine, rail and aviation vehicles.

Different ranges for measuring voltage and current with auto zero point set on AUX supply, no input and overload LED indication that make it most user friendly and desirable for measuring output of various transducers. Front polycarbonate window, bezel, PC glass and dial can be easily replaced and customized to suit the user's application. High level accuracy is guaranteed even in extreme environmental conditions.

FEATURES

- High Accuracy and linearity
- Insensitive against shock and vibration
- Operation in any Installed position
- Scale interchangeability
- With backlit and without backlit LED illumination
No Input and Overload Input LED indication
- Incorporate high resolution movement
- This meter can be configured for all output ranges of transducer by selecting links as specified in table (refer page 3)

MOVEMENT

Analog meter using digital technology comprises highly precise and sturdy movement.

Rugged and robustness of the movement gives the ample mechanical stability over Moving coil.

Guaranteed insensitive to shocks and vibrations in continuous operation.

SPECIFICATIONS

TECHNICAL DATA

Auxiliary Supply Voltage : 24V DC \pm 20%
(1kV ISOLATION)

Power consumption :
24V DC : < 1.5 W

Starting current : 1A about 0.5 sec.
Rotation speed : less than 2.5 sec. / 240°
Starting Response time : About 2.5 seconds
(Pointer reach on Electrical zero after applying AUX)

Electrical Security

Protection Class : IP 52 & IP 20 Terminals
IP 65 (Front Panel) On request
EMC immunity : IEC/ EN 61 000-4-1 to 4
EMC radiated interference : IEC/ EN 61326 Class B

PROOF VOLTAGE

Isolated model : 1kV AC for 1 min (Input v/s Aux)
2.2kV AC for 1 min (Input, Aux v/s Case)
Insulation Resistance : > 50 Mohm at 500 VDC
External magnetic field : 0.5 mT

REFERENCE CONDITIONS

Accuracy Class 0.5% of full scale
according to IEC 51
(IS 1248 / DIN EN 60051)
Ambient temperature 23° C \pm 2° C
Position of use Any

MECHANICAL DATA

Front facia Polycarbonate
Front bezel size 96 mm x 96 mm(DIN 43 700)
Panel cut-out : refer page 4
Overall depth : refer page 4
Weight 250 gm. approx.

SCALE AND POINTER

Pointer : Plastic pointer
Pointer deflection : 37.5° \pm 1° for Aux supply
indication

(To be made to customer's specification) 240° \pm 1° for measurement
(upto 310°) 5° \pm 1° for overvoltage indication

Scale characteristics : Linear

Scale division : Coarse - fine & Vernier
(To be made to customer's specification)

Scale length :

	240°
96 x 96	152mm

Scale Interchangeability : Interchangeable

Scale Design : To be made according to
Customer's specification

STANDARD MEASURING RANGES

D.C. rated values	
Current	Voltage
4 ... 20 mA	0 ... 5 V
0 ... 20 mA	0 ... 10 V
	1 ... 5 V
	2 ... 10V
	-5V ... 0 ... +5V
	-10V ... 0 ... +10V

SELECTION OF RANGE FOR TRANSDUCER

Note : Remove AUX supply before selecting input range.

Links	I/P range							
	0...10V	0...5V	0...20mA	2...10V	1...5V	4...20mA	-10...+10V	-5...+5V
L1	X	✓	X	X	✓	X	X	✓
L2	X	X	✓	X	X	✓	X	X
L3	X	X	✓	X	X	✓	X	X
L4	X	X	X	X	X	X	✓	✓
L5	X	X	X	✓	✓	✓	X	X

Symbols used :
 x - LINK OPEN
 ✓ - LINK SHORT

OVERLOAD CAPACITY

According to IS 1248 / IEC 51

Continuously : 1.2 times rated voltage / current
 Short Duration : 2 times rated voltage, 5s max.
 10 times rated current, 5s max

ELECTRICAL CHARACTERISTIC VALUES

Illumination : Backlit LED

Indication :

- No Input, No AUX - Pointer on OFF position, below zero scale
- AUX & Input - Both red LED will be OFF
- Only AUX
 For Unipolar range - Pointer on zero scale and left red LED ON.
 For Bipolar range - Pointer on zero scale and both LED OFF.
- Overload -
 For Unipolar range - Right red LED ON
 For Bipolar range - Positive overload voltage right red LED ON & for Negative overload voltage - left red LED ON
- No input LED ON - input is less than 0.5% of full scale value (for unipolar range).

ENVIRONMENTAL CONDITIONS

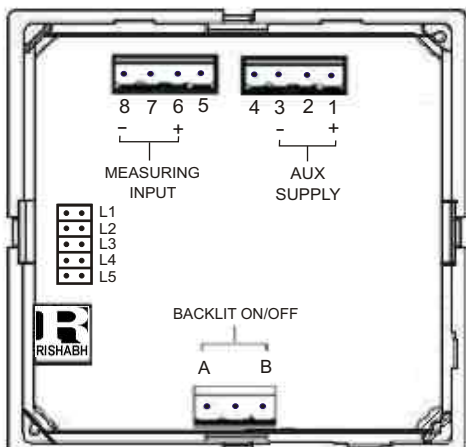
Climatic class : Class 2 to VDE / DIN 3540
 Operating Temp. : -25° C ... +55° C
 Storage Temp. : -25° C ... +70° C
 Relative Humidity : £ 75% annual mean non-condensing
 Vibration level : 5 - 50 - 5 Hz, 15mm 30g at about 31.51 Hz
 Shock level : 50.0g (IEC 51/DIN EN 60 051)

TERMINAL STANDARDS

Terminals Plug - in screw terminal block

STANDARDS	IEC
Rated Voltage	320V,400V
Rated Current	20A
Wire Range	2.5mm ²

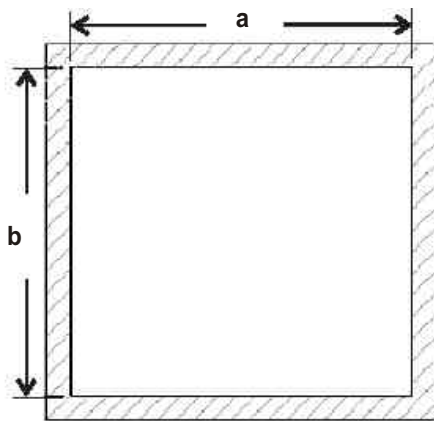
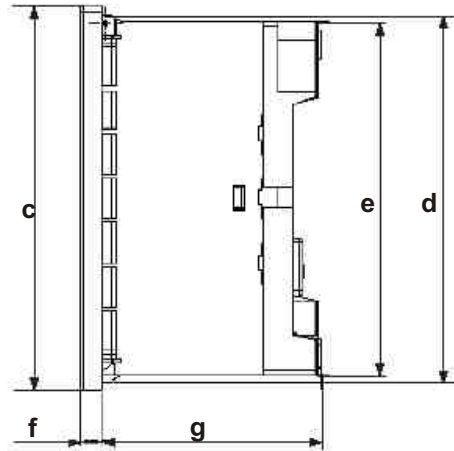
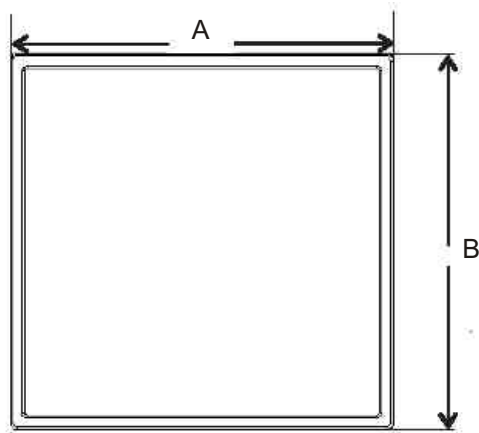
CONNECTION DIAGRAM



		8	7	6	5	4	3	2	1
RISH digimov SD		Sr. No. 10/09/001							
Range : As per link Selection									
I/P RANGE	LINK	0.10V	0.5V	0.20V	2.10V	1.5V	4.20mA	-10...+10V	-5...+5V
L1	X	✓	X	X	X	✓	X	X	✓
L2	X	X	✓	X	X	✓	X	X	X
L3	X	X	✓	X	X	✓	X	X	X
L4	X	X	X	X	X	X	X	✓	✓
L5	X	X	X	✓	✓	✓	X	X	X
x - LINK OPEN ✓ - LINK SHORT		AUX SUPPLY	1 + 3 -	24VDC ±/-20%					
		INPUT	6 + 8 -	AS PER SELECTION					
		BACKLIT ON/OFF	A B	BACKLIT OFF BY SHORTING TERMINAL					
				A		B			

SAMPLE STICKER

DESIGN & INSTALLATION



Installation Cut - Out

Dimensions in mm	DMM 96
A	96
B	96
a	92 + 0.8
b	92 + 0.8
c	96
d	91.4
e	87.8
f	5.5
g	54.8

ORDERING INFORMATION

RISH <i>digimov</i>	SD- 96	Trans	XXX	240°	X	...
DC INPUT SD - 96x96						
Transducer Model						
024 24V DC ± 20% (1kV ISOLATION)						
380 90 - 380V AC DC(3kV ISOLATION)						
DEFLECTION 240°						
WITH BACKLIT ILLUMINATION B						
WITHOUT BACKLIT ILLUMINATION. -						
CUSTOMER SPECIFIC SCALE DESIGN (i.e. 100 DIVISION SCALE / 200 DIVISION SCALE)						



RISHABH INSTRUMENTS
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