



T1-32

MOTOR DRIVE FOR SPRAY APPARATUS

KEYWORDS

MOTOR DRIVE FOR SPRAY APPARATUS, IEC 60529, 60335-1, IPX3, IPX4, EN ,GB.

COMPLIANCE

T1-32 MOTOR DRIVE FOR SPRAY APPARATUS is designed and manufactured in compliance with IEC 60529,...

INTRODUCTION

T1-32 MOTOR DRIVE FOR SPRAY APPARATUS is intended for determining the degree of protection, against ingress of water IPX3 and IPX4.

MAIN FEATURES

OSCILLATING MECHANISM WITH TUBE CARRIER, ELECTROMOTOR AND ADJUSTABLE CARRIER OF SUPPORTING END BEARING

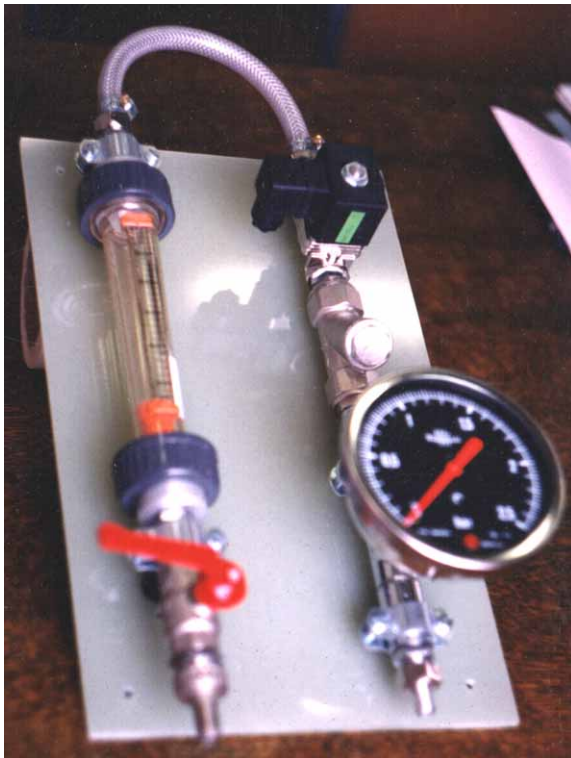
- can be rotated around the basic vertical carrying tube; this enables the use of same space for either IPX1,2 or IPX3,4 test
- Height of oscillating mechanism can be adjusted
- Mounting (changing) of oscillating tubes can be easily achieved by simple insertion of tube and tightening of knurled nuts.
- MAIN CONTROL UNIT
- Water proof plastic casing, should be mounted on a wall, so that it enables the operator to stay dry
- Start and stop buttons
- Timer for test duration
- Knob for oscillation speed
- Switch for turning water on/off
- Elements of control circuit are supplied by 24 V AC
- After the operating time, that had been set on the timer, runs out the tube returns to vertical position, apparatus is switched off, and the water is shut off.



The equipment described here is subject to redesign without notice. The change will not impair the function of apparatus its characteristics or the price.

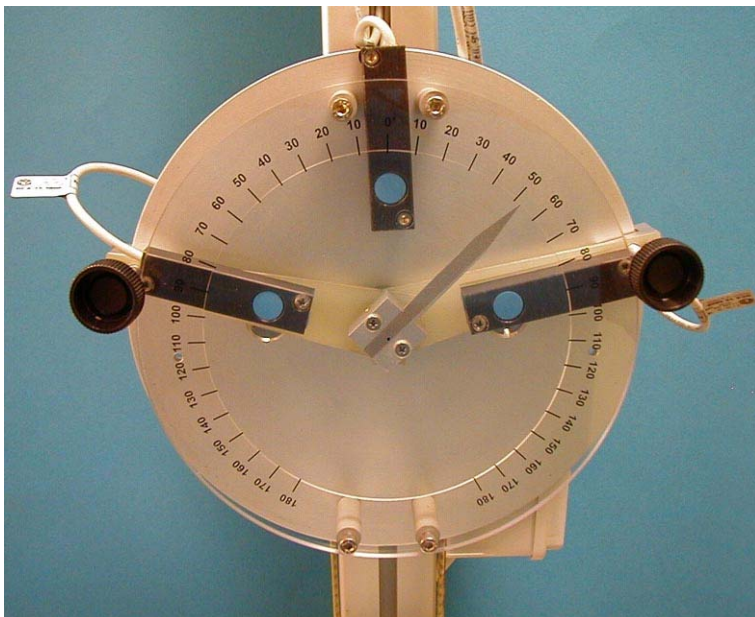
WATER SUPPLY UNIT

- Attached on the wall console, so that it enables the operator to stay dry
- Manual valve for flow controlling
- Water filter
- Flow meter
- Manometer
- Electromagnetic valve that is controlled by control unit



ANGLE CONTROL UNIT

- Control of oscillation angles
- Control of stop position (usually vertical)
- Monitoring of tube position
- This unit is so designed that it is possible to conduct symmetric and asymmetric oscillations with steplessly adjustable both end positions and stop position.
- Equipped with scale (180 deg), three limit sensors and pointer



DESCRIPTION

Electromotor is supplied by 3-phase voltage 220 V that is generated by frequency transformer (motor controller) with feed-back regulation. The controller also enables steplessly adjustable braking (and acceleration) that is performed each time before and after the change of direction of the tube. This should be done to ensure uniform unwavering oscillating of the tube. The current is also limited for the reason of motor protection. If oscillating tube strikes in obstacle during operation, adjustable electronic current limiter limits the torque on the shaft of electromotor and protects the tube, the motor and the obstacle (person or sample). Oscillating tube stops until the obstacle is removed, and after that normally continues oscillating.

DESIGN

Basic framework is made of anodized sectional aluminium profiles. All other parts are made of stainless steel AISI 304 (DIN W. No. 1.4301 X5CrNi18-10)

http://en.wikipedia.org/wiki/Stainless_steel.

TECHNICAL SPECIFICATION

MECHANISM

System of attachment	wall mounting-pivoted (folding)
Tube height adjustment (h=2500)	500 - 1250 (axis)
Smallest tube	R=200
Biggest tube	R=1000 (1200)
Height of mechanism	h=2500 - h=3500
Length of mechanism	working position l=2750 (with R 1000)
Mechanism folded along the wall	max. 300 mm from the wall

CONTROL UNIT

Supplying voltage	230 V, 50 Hz, 2 A
Operating voltage	24 V DC; safety
Time setting	1-60 min
Angle adjustment	steplessly adjustable $\pm 180^\circ$
Tube stop position	adjustable

MOTOR WITH REDUCTION GEAR

Supplying voltage	3 f 230 V, 50 Hz
Power consumption	0,25 kW to 0,37 kW
Rpm at 50 Hz	900 o/min. to 1400 o/min.
Rpm at 120 Hz	1800 o/min. to 2800 o/min.
Reduction	1:100, M=500 Nm

FREQUENCY TRANSFORMER (MOTOR SPEED REGULATOR)

Method of regulation	linear frequency-voltage
Supplying voltage	line 230 V $\pm 10\%$, 50 Hz
Output (to motor)	3 x 230 V, 0-120 Hz
Potentiometer	10 k LIN., U=0-10 V DC
Power consumption	0,37 kW
Brake of motor	electronic - frequency
Stopping time	adjustable
Limitation of motor power	steplessly adjustable

WATER SUPPLY UNIT

System of mounting	wall mounting
Input and output of water	1/2"
Manual valve	1/2"
Electromagnetic valve	1/2"
Flow meter	30 - 300 l/h
Water filter	on request

The equipment described here is subject to redesign without notice. The change will not impair the function of apparatus its characteristics or the price.

OTHER CONDITIONS

Warranty: 2 years

Support by E-mail: support@testing.si

On line Skype VIDEO support: Testing_support, matejsimonic

We will be glad to help you and to hear any feedback from you.