

KAKKU HEAVY DUTY MASTER CONTROLLERS

SERIES MSC-1500 & MSC-1600

SPECIAL FEATURES

- Double break contacts with high quality silver cadmium oxide contact tips having arc-retarding & anti-welding properties.
- Provided with specially treated oil resistant rubber gaskets at all the joints to make it completely dust proof.
- Cams and contact block of high grade phenolic fibrous moulding material having excellent electrical & mechanical properties.
- Unified design such that the main parts as well as individual components are identical over the entire range.
- Star wheel for positive notching at each step and pronounced notching at neutral in the case of MSC – 1500.

- Universal design for both AC & DC applications.
- KAKKU master controllers are also noted for ease of assembly, dis-assembly & adjustments as well as free access to all the parts.
- Contact sequence chart pasted on inside face of cover and name plate of operational details indicated clearly.
- Long life with reliable performance and trouble free operation.

APPLICATION

KAKKU Heavy Duty Master Controllers Type MSC-1500 with dead man's handle and MSC-1600 with foot- pedal drives are extensively used in the controls of excavator

& shovel mechanisms, particularly in Russian electric shovels type *EKG-4.6 or similar*.

TECHNICAL DATA

Ambient Temperature	: 55°C
Mounting Arrangement	: Surface Mounting
Housing	: Cast Iron/ Al.
Enclosure Category	: As per IP-54 of IS : 2147-1962
Terminals	: Suitable for conductor size 2.5mm ²
Max. No. of operating positions	: 4-0-4
Max. No. of circuits	: 6

RATINGS

Rated Voltage	Permissible Continuous Current	Making Current upto 500 VAC	Breaking Current at Inductive Load (Amps.)			
			DC			Upto 500V AC
			110V	220V	440V	
Upto 500V AC or DC	10A	50A	2.5	1.5	0.5	10

Permissible Switchings : 800 operations per hour

SELECTION CHART

Types	Operated through	Typical in shovels	Fig.	~erst-while USSR series
MSC-1500	Dead man's handle with push buttons	Hoist & crowd	1	3K-8200
MSC-1600	Foot Pedal	Swing & Propel	2	3K-8250

DIMENSIONS

- As per relevant figures shown in the dimensional data sheet.

OPTIONAL EXTRAS

- Enclosure as per IP-55 or superior.
- Contacts with thermal rating of 40Amps.

- Suitable base plate at bottom to match any mounting dimension. (furnish drawing).
- Epoxy paint for special applications.

ORDERING INFORMATION

- Give KAKKU type.
- No. of operating positions or steps.
- Contact sequence chart indicating opening & closing of each contact in every position of the controller.
- Name plate details of operation i.e. 'HOIST-LOWER, 'SWING-PROPEL', etc.
- Specify optional extras if any.

Product improvement is a continuous process at KAKKU. Hence data given in this catalogue is subject to revision without notice.



Symbol Of Reliability

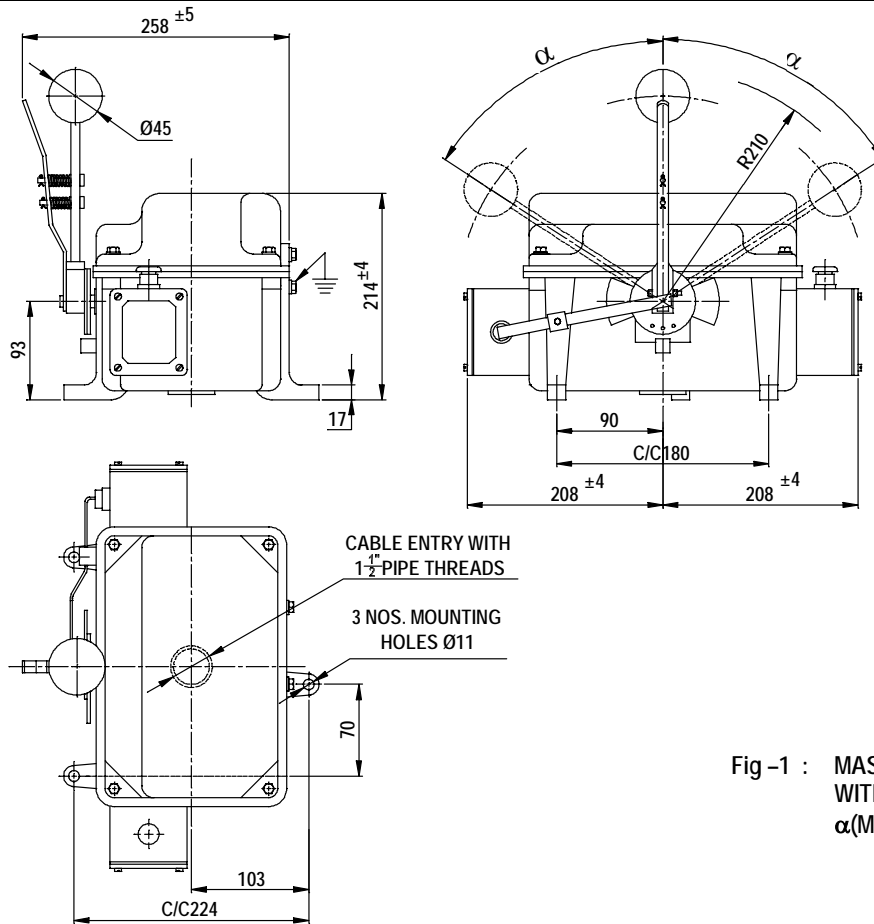


Fig -1 : MASTER CONTROLLER (MSC-1500)
WITH DEAD MAN'S HANDLE
 $\alpha(\text{MAX.})$ FOR 4-0-4 POSITION = 57°

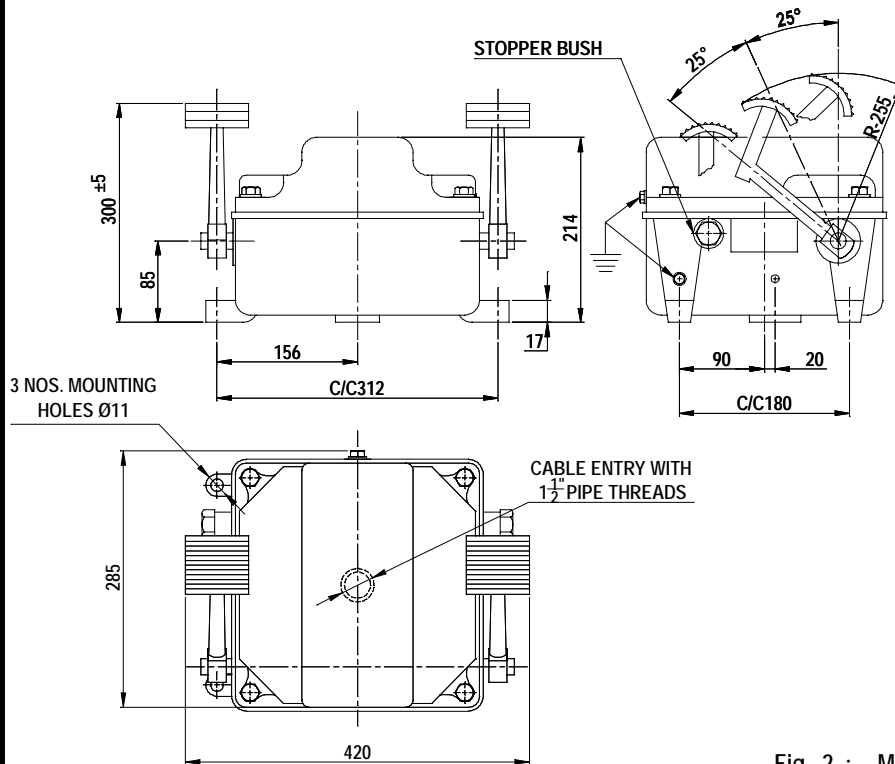


Fig -2 : MASTER CONTROLLER (MSC-1600)
FOOT OPERATED

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