

*Indian Standard***GRAPHICAL SYMBOLS FOR
KINEMATIC DIAGRAMS, PART 3**

(ISO Title : Kinematic Diagrams — Graphical Symbols — Part 3)

National Foreword

This Indian Standard (Part 3), which is identical with ISO 3952/3-1979 ' Kinematic diagrams — Graphical symbols — Part 3 ', issued by the International Organization for Standardization (ISO), was adopted by the Indian Standards Institution on the recommendations of the Drawings Sectional Committee and approved by the Engineering Division Council.

Wherever the words ' International Standard ' appear referring to this standard, they should be read as ' Indian Standard '.

Additional Information

This standard is the national implementation of ISO 3952/3-1979, as such only the English text has been reproduced. If the French and Russian texts are required, reference should be made to the original ISO publication.

This Indian Standard includes a number of parts, each identical with the corresponding part of the International Standard ISO 3952, as follows:

Part 1 (ISO 3952/1)	Motion of links of mechanisms Kinematic pairs Links and connection of their components N-bar linkages and their components
Part 2 (ISO 3952/2)	Friction and gear mechanisms Cam mechanisms
Part 3 (ISO 3952/3)	Geneva and ratchet mechanisms Couplings and breaks

Introduction

The purpose of this International Standard is the creation of a system of graphical symbols for kinematic diagrams. The creation of such a system will simplify the preparation of kinematic diagrams and will facilitate the execution and understanding of such diagrams by specialists of different countries.

Scope and Field of Application

This International Standard establishes the graphical symbols for elements of kinematic diagrams of products in all branches of industry. The symbols established by this International Standard are to be used on diagrams in technical documentation, as well as in technical and educational literature.

This International Standard is being published in three parts, as follows:

Part 1

- 1 Motion of links of mechanisms
- 2 Kinematic pairs
- 3 Links and connections of their components
- 4 Linkage of bars and their links

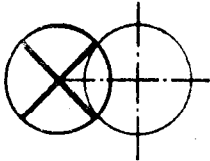
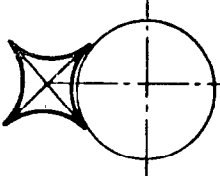

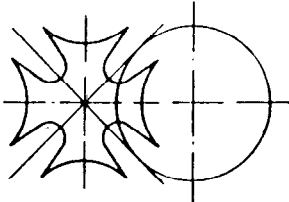
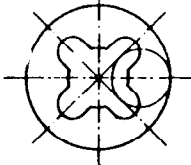
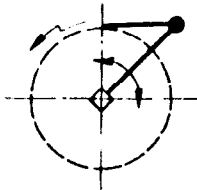
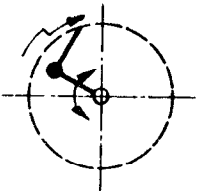

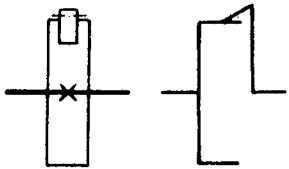
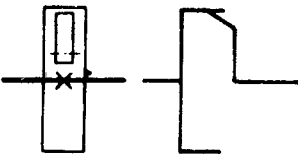
Part 2

- 5 Friction and gear mechanisms
- 6 Cam mechanisms



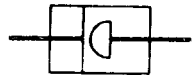
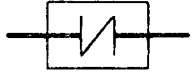
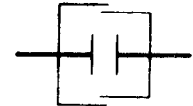
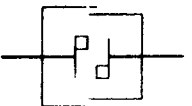
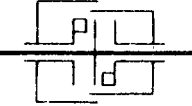
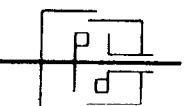
Part 3

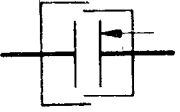
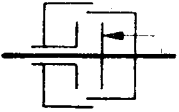
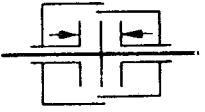
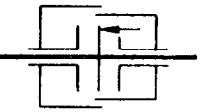
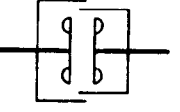
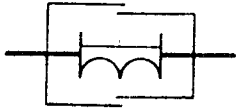
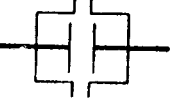
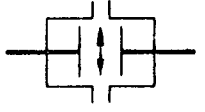
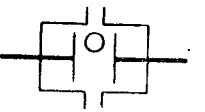
- 7 Geneva and ratchet mechanisms
- 8 Couplings, clutches and brakes

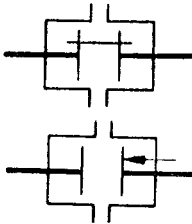
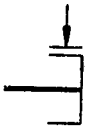
7 Geneva and ratchet mechanisms

No.	Designation	Definition	Basic symbol	Permissible symbol	Notes
7.1	<p>Geneva mechanism — General symbol</p> <p>a) with external engagement</p> <p>b) with internal engagement</p>		  	 	
7.2	<p>Ratchet mechanism with pawl</p> <p>a) with external engagement</p> <p>b) with internal engagement</p> <p>c) with rack engagement</p>		  	 	

8 Couplings, clutches and brakes

No.	Designation	Definition	Basic symbol	Permissible symbol	Notes
8.1	Couplings—General symbol (without statement of type)	A drive unit intended for the coupling of shafts and consisting of driving and driven parts and connecting elements			
8.1.1	Fixed couplings	Couplings that do not permit shaft displacement			
8.1.2	Compensating couplings	Couplings permitting the relative displacement of driving and driven parts			
8.1.3	Elastic couplings	Coupling with flexible connecting element			
8.2	Controllable clutches	Clutches with special element providing the clutch control			
8.2.1	Gear clutches	Clutch, engaged when driving and driven parts have no different angular speeds and not permitting the deviation of angular speeds of driving and driven parts	 		
	a) one-way				
	b) two-way				

No.	Designation	Definition	Basic symbol	Permissible symbol	Notes
8.2.2	Friction (asynchronous) clutch	Clutch, engaged when driving and driven parts have different angular speeds, and transmitting the motion by friction			
	a) one-way				
	b) two-way				
8.2.3	Hydraulic clutches — General symbol				
8.2.4	Electrical clutches				
8.3	Automatic (self-acting) clutches — General symbol	Clutches in which engagement and disengagement occur automatically as a result of change in set running conditions			
8.3.1	Centrifugal friction clutch	Clutch, the connecting element of which transmits the motion by centrifugal forces			
8.3.2	Overrunning clutch	Clutch which permits transfer of motion in one direction only			

8.3.3	Slip clutch a) with destructible element (such as a shear pin) b) with non-destructible element	Clutch automatically disengaging or limiting a torque when the applied torque exceeds the set value			
8.4	Brakes — General symbol				Brake surface is not specified

NOTES TO 8.2, 8.3 AND 8.4

If it is necessary to indicate the type of control operation, the following qualifying symbols may be applied:

- M — mechanical
- H — hydraulic
- P — pneumatic
- E — electrical (for example electromagnetic)

Example : One-way friction clutch with pneumatic switch actuation.

