



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS E 3012 : 1988

(Reaffirmed : 2001)

Graphical symbols for railway signaling

ICS 01.080.20; 45.020

Descriptors : graphic symbols, railway control systems, drawings

Reference number : JIS E 3012 : 1988 (E)

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Transportation through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law:

Date of Establishment: 1961-03-01

Date of Revision: 1988-03-25

Date of Reaffirmation: 2001-06-27

Date of Public Notice in Official Gazette: 2001-07-05

Investigated by: Japanese Industrial Standards Committee

Divisional Council on Railways and Rolling
Stock

JIS E 3012:1988, First English edition published in 2003-06

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

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Printed in Japan

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Graphical symbols for railway signaling

1 Scope This Japanese Industrial Standard specifies graphical symbols to be used for drawing of railway signaling and the like (hereafter referred to as "graphical symbol").

Remarks : For the purposes of this Standard, the dashed line represents other related graphical symbol and the like.

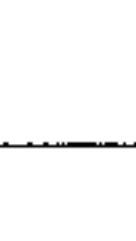
2 Graphical symbols

2.1 Block instruments

Name and division		Graphical symbol	Remarks
Token exchanger	Receiver		
	Deliverer		

2.2 Signal apparatus

2.2.1 Main signal (excluding shunting signal)

Name and division			Graphical symbol		Remarks
			Multiple light type	Searchlight type	
Home, starting and block signal	Three-position system	Signaling the aspect of stop, caution and proceed			For a normal proceed signal, to use the following symbol. 
		Signaling the aspect of stop and caution			For a signal apparatus of stick aspect, to use the following symbol. 
		Signaling the aspect of stop, speed restriction and caution			In the case of signal aspect with time element, to use the following symbol. 
		Signaling the aspect of stop, speed restriction and proceed			For a short stemmed signal apparatus, to use the following symbol. 
					For a suspended type signal, to use the following symbol. 

Normative reference:

JIS C 0301 *Graphical symbols for electrical apparatus*

Name and division			Graphical symbol		Remarks
			Multiple light type	Searchlight type	
Home, starting and block signal	Three-position system	Signaling the aspect of stop, speed restriction, caution and proceed			
		Signaling the aspect of stop, caution, slow-down and proceed			
		Signaling the aspect of stop, speed restriction, caution, slow-down and proceed			

Name and division				Graphical symbol			Remarks
				Colour light signal		Semaphore signal	
				Multiple light type	Searchlight type		
Home and starting signal	Two-position system ⁽¹⁾	Semi-automatic					For the case of signaling aspects of stop, speed restriction and proceed with an electrical colour light signal, the following graphical symbol shall be used. 
		Similarly semi-automatic (stick) ⁽²⁾	Electrical				
			Mechanical	Single line			
		Manual	Electrical				
			Mechanical	Single line			
Call-on signal		Position light					
		Colour light		 			

Notes ⁽¹⁾ Those signaling aspects of stop and proceed.

⁽²⁾ The "(stick)" refers to the case to be used for stick signal.

2.2.2 Shunting signal (including those of common use with shunting indicator)

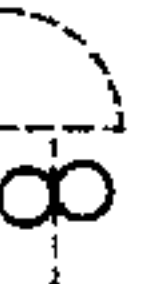
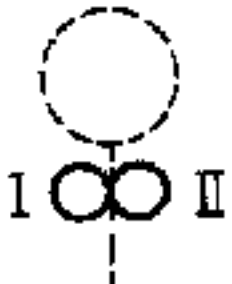
Name and division		Graphical symbol				Remarks
		3-position system		2-position system		
		Electrical operation				
		Position light signal	Colour light signal	Position light signal	Colour light signal	
Semi-automatic	Single					For a non-stemmed type, to draw the symbol without stem.
	Common					
Similarly semi-automatic (stick)	Single					
	Common					
Manual	Single					
	Common					

2.2.3 Subsidiary signal

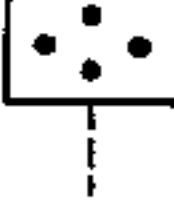
Name and division			Graphical symbol		Remarks
			Colour light signal		
			Multiple light type	Searchlight type	
Distant signal ⁽³⁾	Electrical				For the case of signaling the aspects of caution, reduced speed and proceed, to use the following symbols. Multiple light signal  Searchlight signal 
Passing signal ⁽³⁾	Electrical				
	Mechanical	Single line	Semaphore signal		
					
Repeating signal					

Note (3) Signaling the aspects of caution and proceed.

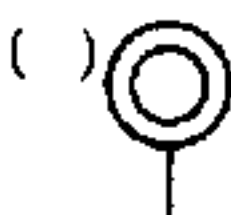
2.2.4 Signal appendant

Name and division	Graphical symbol	Remarks
Route indicator	   	To fill the number of routes in . To fill the route number in .
Preliminary route indicator	 	The letters of I, II and III represent the respective track names.

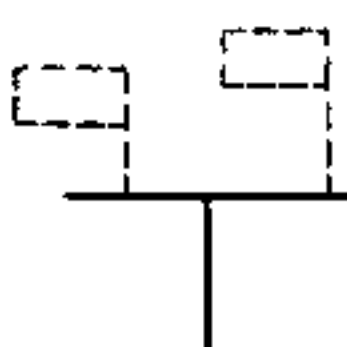
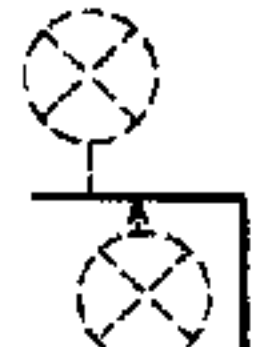
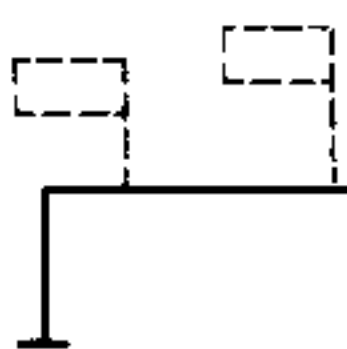
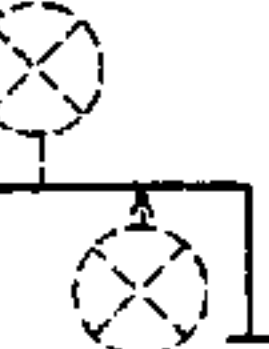
2.2.5 Signs, markers, indicators and others

Name and division		Graphical symbol	Remarks
Sign	Substitute apparatus for hand signal		
	Shunting sign		
	Departure sign		
	Brake test sign device		
	Forbidden movement sign		
	Substitute apparatus for proceed hand signal		
Marker and indicator	Repeater of starting signal		
	Train stop indicator		
	Car stop indicator		
	Car stop marker		
	Trolley power source indicator		
	Route power source indicator		
	Stopping limit indicator		
	Station approach marker		
	Home signal position indicator		

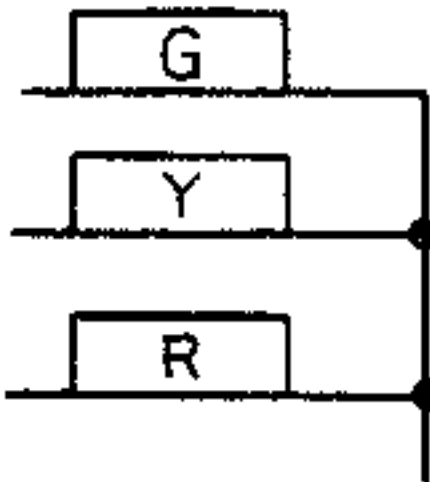
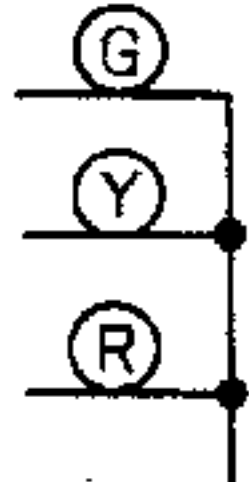
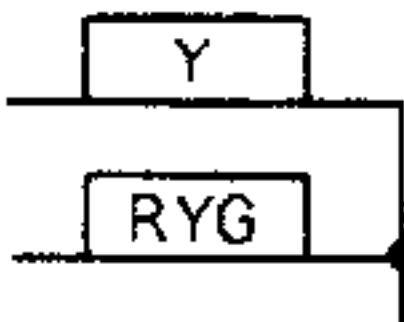
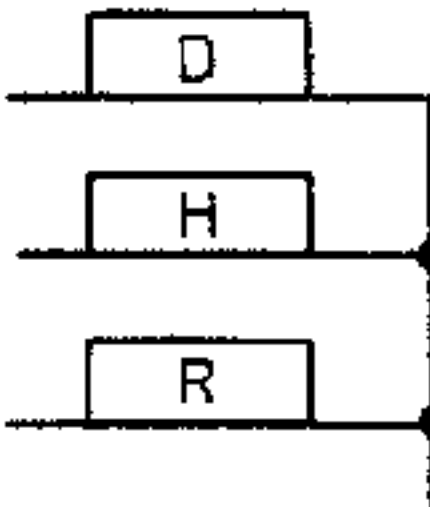
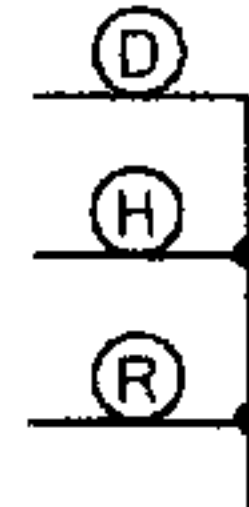
Name and division			Graphical symbol	Remarks	
Marker and indicator	Leaving-signal position indicator				
	ATC entrance marker				
	ATC clearness marker				
	Point indicator	Ordinary	or	To enter the indicator size of large, medium and small in an appropriate space.	
		Derailing or lifting point (run over) and derailer	or		
		Spring point	or		
	Shunting indicator	Electrical	Position light	One side	For a non-stemmed type, to draw the symbol without stem.
			Both sides		
		Track marker	One side	or	
			Both sides	or	
Kick off shunting indicator					
Block marker light					
Block system indicator					
Vehicle contact gauge					

Name and division		Graphical symbol	Remarks
Track number indicator			To enter number of the tracks in .
Others	Track marker		To enter the number of shunting indicator in (). Further, to enter the number or name of the track as needed.
	Shunting indicator repeat light	For ordinary case 	
		For the case using mechanism of the shunting indicator 	
	Kick off shunting indicator repeat light		To enter the number of the subject kick off shunting indicator in ().
	Lock indicating light and lock switch		To enter the number of locking-lever in an appropriate space.
	Antenna		

2.2.6 Signal bracket and signal bridge

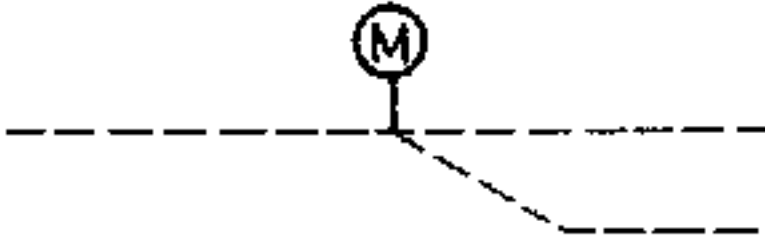
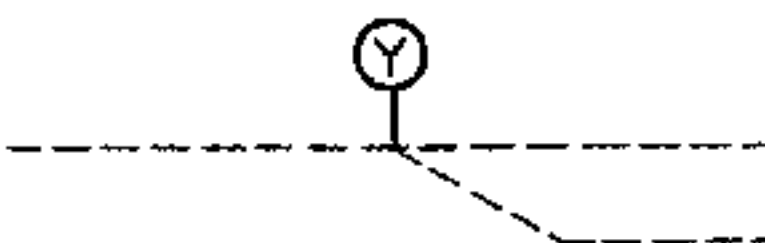
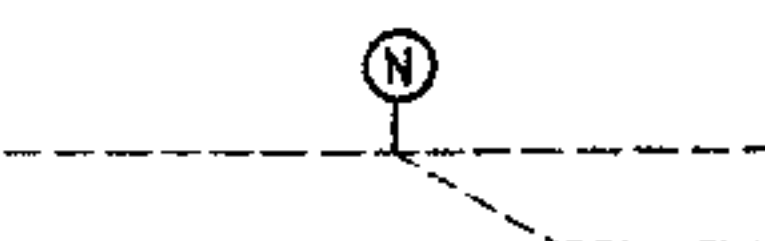
Name and division	Graphical symbol	Remarks
Signal bracket	 	Where it is not exclusive use other articles supported shall be expressed with broken line.
Signal bridge	 	

2.2.7 Signal mechanism

Name and division			Graphical symbol	Remarks
Colour light	Multiple light type	3 aspects	 or 	The graphical symbol of light shall be added or omitted properly according to the order of lights in the mechanism.
		3 aspects		
	Searchlight type	4 or 5 aspects		
Position light signal			 or 	The graphical symbol of light shall be added or omitted properly according to the order of lights in the mechanism.

2.3 Switch and lock system

2.3.1 Switch movement

Name and division		Graphical symbol	Remarks
Electric point machine	Regular		
	For simplified lock		
Electro-pneumatic switch machine			
Spring point			