

JIS

JAPANESE INDUSTRIAL STANDARD

**Surface accessory for rigid
metal conduits**

Ⓔ **JIS C 8340**—1991

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In the event of any doubt arising,
the original Standard in Japanese is to be final authority.



1. Scope

This Japanese Industrial Standard specifies surface switch boxes, circular surface boxes, universal fittings, terminal caps and entrance caps for use with the conduits specified in JIS C 8305.

Remarks: The following Standards are cited in this Standard:

JIS C 8305-Rigid Steel Conduits

JIS C 8359-General Rules for Fittings of Metal Conduits and Underfloor Ducts

2. Classification

The surface accessories for rigid metal conduits are classified as given in Table 1.

Table 1. Classification of surface accessories for rigid metal conduits

Classification		Attached figure	Remarks
Name	Applicable conduit		
Surface switch box	Thin walled steel conduit	1	For one fitting and one outlet 
	Thick walled steel conduit		For one fitting and two outlets 
	Threadless steel conduit		For two fittings and one outlet 
	Threadless steel conduit		For three fittings and one outlet 
Circular surface box		2	One outlet 
			Two outlets  
			Three outlets 
			Four outlets 
Universal fitting		3	LL-type, LB-type and T-type cast iron
		4	LL-type, LB-type and T-type die cast

Table 1. (Continued)

Classification		Attached figure	Remarks
Name	Applicable conduit		
Terminal cap		5	A-type and B-type cast iron
		6	A-type and B-type die cast
Entrance cap		7	Cast iron
		8	Die cast

3. Performance

3.1 Threadless connectability The threadless connectability shall comply with the provision of 4.1 (threadless connectability) of JIS C 8359 when subjected to the test of 7.2.

3.2 Rust prevention The rust prevention shall comply with the provision of 4.2 (Rust prevention) of JIS C 8359 when subjected to the test of 7.3.

Surface accessories for rigid metal conduits for which rust prevention is supplied by a synthetic resin coating shall conform to 4.3 (coating performance) of JIS C 8359, and those for which rust prevention is supplied by painting shall conform to 4.4 (paint film performance) of JIS C 8359.

4. Construction

In addition of compliance with 5 (construction) of JIS C 8359, the construction shall satisfy the following:

- (1) Surface accessories for rigid metal conduits shall be made of durable cast iron, die cast or steel sheets of 1.6 mm (2.0 mm for ones with nominal size of 51 and over) in thickness.
- (2) Surface switch boxes shall be so constructed as to attach switch(s) or a plug socket(s).
- (3) Circular surface boxes shall be so constructed as to attach a steel sheet cover or an apparatus.
- (4) Universal fittings shall be so constructed as to attach a steel sheet cover of 1.6 mm in thickness.
- (5) The terminal caps and the entrance caps shall be so constructed that an insulating sheet for drawing out the wire as shown in Informative reference Fig. 1 or 2 can be attached.

5. Shapes and dimensions

The shapes and dimensions shall be as given in Attached Figs. 1 to 8. Each figure shows an example of the shape. The tolerances on dimensions shall be in accordance with 6 (dimensions and tolerances thereon) of JIS C 8359.

The part which joins the conduit (commonly called the hub) shall comply, in addition to 5.2 (connection) JIS C 8359, with the dimensions of Table 2.

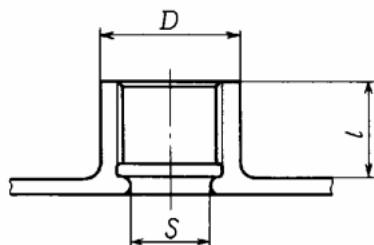
Table 2. Dimensions of connecting parts

Unit: mm

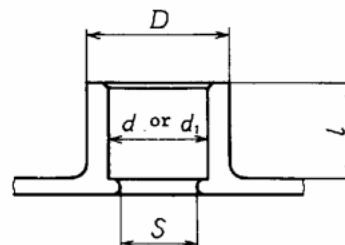
Threaded connection						Threadless connection						
Nominal size		<i>l</i>	<i>S</i>	<i>D</i>		Nominal size	<i>l</i> Min. value	<i>S</i>	<i>d</i> ±0.2	<i>d</i> ₁	<i>D</i>	
Thin wall	Thick wall			Iron cast Die cast	Steel						Iron cast die cast	Steel
C19	—	18	16	28	23	E19	18	16	19.6	21.0 ^{+1.2} ₀	28	23.6
—	G16				25							
C25	—	20	22	35	29.5	E25	20	22	25.9	27.3 ^{+1.2} ₀	35	29.9
—	G22				31							
C31	—	29	29	42	36	E31		29	32.3	33.7 ^{+1.2} ₀	42	36.3
—	G28				37.5							
C39	—	25	36	50	42.5	E39	25	36	38.6	40.0 ^{+1.2} ₀	50	43.2
—	G36				48.5							
C51	—	45	45	60	56	E51		45	51.3	52.7 ^{+1.2} ₀	60	55.9
—	G42				54.5							
C63	—	56	56	72	70	E63		56	64.2	65.6 ^{+1.5} ₀	72	69.2
—	G54				68							
C75	—	35	70	88	83	E75	35	70	76.9	78.3 ^{+1.5} ₀	88	81.9
—	G70				84							
—	G82		81	100	97							

Remarks: *d*₁ is the size of the inside diameter of a part to be connected to a conduit for which rust prevention is supplied by synthetic resin coating.

Threaded connection



Threadless connection



6. Materials

The materials shall follow 7 (materials of principal parts) of JIS C 8359.

7. Test methods

7.1 Construction test The construction test shall examine whether the box and the like comply with the provisions of 4. to 6. and 10.

7.2 Threadless connection test The threadless connection test shall be carried out on threadless connection type boxes in accordance with 8.2 (threadless connection test) of JIS C 8359.

7.3 Rust prevention test The rust prevention test shall follow 8.3 (rust prevention test) of JIS C 8359.

The coating performance test of surface accessories for rigid metal conduits for which rust prevention is supplied by synthetic resin coating shall be as given in 8.4 (coating performance test) of JIS C 8359, and the paint film test for those for which rust prevention is supplied by painting shall be as given in 8.5 (paint film test) of JIS C 8359.

8. Inspection

8.1 Shape inspection The shape inspection shall be carried out on the following items in accordance with 7. and the results shall comply with 3. to 6. and 10.

- | | |
|---------------------------|--------------------------|
| (1) Rust prevention | (4) Shape and dimensions |
| (2) Threadless connection | (5) Materials |
| (3) Construction | (6) Marking |

8.2 Delivery inspection The delivery inspection shall be carried out on items of 8.1 in accordance with 7. and the results shall comply with 3. to 6. and 10. The inspection items may be partially or entirely omitted, subject to agreement between the parties concerned.

9. Product designation

The product designation shall be in accordance with 10. (designation of product) of JIS C 8359.

Example 1: Entrance cap C25

Example 2: Universal fitting LL-type G22

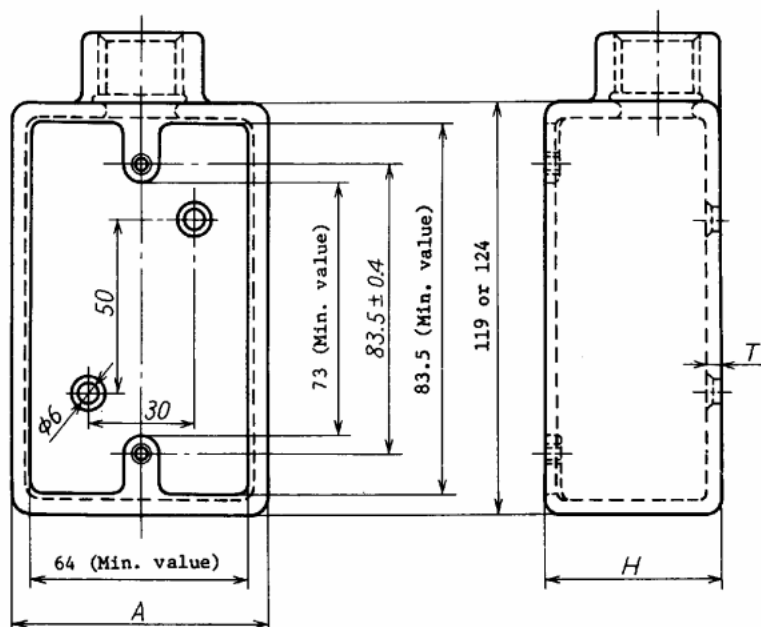
10. Marking

The marking shall follow 11. (marking) of JIS C 8359.

Attached Fig. 1. Surface switch box
(Cast iron)

Unit: mm

For one fitting and one outlet



For two fittings and one outlet

