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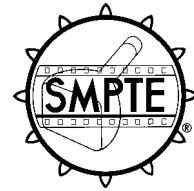
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SMPTE STANDARD

ANSI/SMPTE 205-1993

Revision of
ANSI/SMPTE 205-1988

for Motion-Picture Equipment (8-mm Type S) — Model 1 Camera Cartridge — Interface and Take-Up Core Drive (200-Ft Capacity)



Page 1 of 6 pages

1 Scope

This standard specifies the dimensions of the 8-mm type S 200-ft (60-m) capacity motion-picture camera cartridge and cartridge-camera interface. Also specified are the dimensions of the take-up core drive opening and critical dimensions of the take-up core as well as the driving force, direction of drive, and recommended drive ratio. An optional means of retaining the film supply until the cartridge is placed in the camera is described.

2 Dimensions

2.1 The dimensions shall be as given in the figures and table 1.

2.2 The dimensions apply to an assembled cartridge with a film load at the time of manufacture.

2.3 Datum planes B, C, and A are referred to as first, second, and third, respectively. The planes, which are used for dimensioning, are mutually perpendicular and are jointly called a datum reference frame.

2.3.1 Datum plane A is coincident with the center of a circle located by basic dimension T. The circle is in contact with the edges of the locating slot defined by dimensions A, O, P, and Q. The diameter of this circle is such that it applies regardless of feature size (RFS) of the locating slot (see figure 2 and annex A.1).

2.4 Datum features B, C, and A are primary, secondary, and tertiary, respectively.

2.4.1 Datum feature B is the unnotched, unlabeled surface of the cartridge, extending 2.00 in (50.8 mm) basic below and 1.635 in (41.53 mm) basic above datum plane A (cartridge surface between dimensions Av and Cs in figure 1). It is the primary datum feature and contacts datum plane B (of a gauging fixture [see annex A.1]) at a minimum of three points.

2.4.2 Datum feature C is the front seating surface of the cartridge, extending 2.00 in (50.8 mm) basic below and 1.635 in (41.53 mm) basic above datum plane A. It is the secondary datum feature and contacts datum plane C (of a gauging fixture [see annex A.1]) at a minimum of two points.

2.5 Dimensions L, N, U, Am, V, M, W, and R3, measured from datum planes A and C to the depth of dimension E, describe the extent of both triangular recessed areas. The inboard wall of the recessed area, defined by dimensions L and N, shall be a smooth surface and may be tilted sufficiently from the perpendicular to datum plane B to allow proper release from a mold, when the cartridge is manufactured in a molding process.

2.6 The thickness of the wall of the cartridge used for notching, dimension W, shall be sufficient to withstand a force of at least 2.2 lbf (10 N), while deflecting no more than 0.04 in (1.0 mm). (For purposes of measurement, the force is applied by a solid round pin of nominal 0.05-in [1.3-mm] diameter, centered 0.03 in [0.8 mm] nominally above or below the film speed or filter notch coincident with basic dimension T on datum feature C.)

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Figure 1 – Cartridge