

CHART III International Protection (IP) Ratings to IEC 262

The standard EN 50 262 was issued on 01.04.1998 and published in April 1999 in Germany as DIN-EN 50 262/VDE 0619. The well-known standards for cable glands, such as DIN VDE 0619 (VDE 0619): 1987-09, DIN 46 319: 1989-12, DIN 46 320-1: 1985-09 and DIN 46 320-2...-4: 1973-01 etc, are only applicable until 31.12.1999. Approved technical drawings using these standards are valid until 01.03.2001.

- 1.) Fields of application for standard EN 50 262: This European standard contains the requirements and tests for the construction and design of metric cable glands. This standard covers the cable gland as a complete part, but not the parts of cable glands.
- 2.) The screw-in thread of cable glands must be constructed according to chart 1 of EN 60 423. The dimensions of the thread are M6x0,75; M8x1; M10x1; M12x1.5; M16x1.5; M20x1.5; M25x1.5; M32x1.5; M40x1.5; M50x1.5; M63x1.5 and M75x1.5.
- 3.) The mounting holes must be dimensioned according to **Chart A**.
- 4.) Cable glands must be able to guarantee the retaining power for cables and conduits for the complete sealing section. Cable glands with traction relief for cables and conduits must free the conduits from the load of tension and twist. The tests are carried out, with in each case the smallest and largest mentioned value of the seal resp. tension relief section of the according loads and torque values in **Chart B**.

These tests are performed with test pins reproducing the outer diameters of the cables and conduits. The test pins consist of a metal rod with an elastomere sheath.

- 5.) Cable glands must be impact resistant. A test pin according to the smallest value of the sealing section is fastened to the test probe and then the test is carried out a lowest temperature according to the energy in accordance with category of **Chart C**. All specifications, charts and values are excerpts from standard DIN 50 262. Obviously further tests (electric properties, IP-Code etc.), which are necessary to classify and mark cable glands are described in this standard. It would although go beyond the scope of this catalogue.

Chart A: Mounting holes for cable glands

Thread size	12	16	20	25	32	40	50	63
Diameter of	M12	M16	M20	M25	M32	M40	M50	M63
Mounting hole								
+ 0,2/- 0,4 mm	12,5	16,5	20,5	25,5	32,5	40,5	50,5	63,5

Chart B: Tensile load for retaining power and tension relief, torque for turning tests

Cable and Conduit diameter	Retaining Power	Tensile relief Type A	Tensile relief Type B	Torque Type A and B
[mm]	[N]	[N]	[N]	[Nm]
bis 4	5	-	-	-
> 4 bis 8	10	30	75	0,10
> 8 bis 11	15	42	120	0,15
> 11 bis 16	20	55	130	0,35
>16 bis 23	25	70	140	0,60
> 23 bis 31	30	80	250	0,80
> 31 bis 43	45	90	350	0,90
> 43 bis 55	55	100	400	1,00
> 55	70	115	450	1,20

Chart C: Value for impact test

Categorie	1	2	3	4	5	6	7	8
Load [N]	2	2	2	2	10	10	10	20
Weight [Kg]	0,2	0,2	0,2	0,2	1,0	1,0	1,0	2,0
Energy [J]	0,2	0,5	1,0	2,0	4,0	7,0	10,0	20,0
Height [m]	0,1	0,25	0,5	1,0	0,4	0,7	1,0	1,0