STORAGE

No. of cables per bin
UNITEST

GENERAL

Brand   Cimbria
Model   Unitest - No. of cables per bin
The Unitest system can be used in all types of grain storage facilities and can be installed in both new and existing installations. The temperature is constantly monitored by means of a number of sensors which are fitted in carrying cables specially designed for installation in harsh environments.

Cables

The number of cables suspended in a silo depends on the diameter of the silo, the stored commodity and the climatic conditions.

There is no mathematic formula to calculate the necessary number of cables per silo, but the table below shows our recommendations.

Our recommendations are based on our experience in the market.

Sensors

The number of sensors in a cable is mainly depending on the length of the cable.

By experience we have learned that the maximum length between sensors is 5 meters. However, the best result is achieved if the distance between the sensors is kept around 3-4 meters.

The final decision on the number of cables and sensors in a silo is always made in close co-operation with the customer.
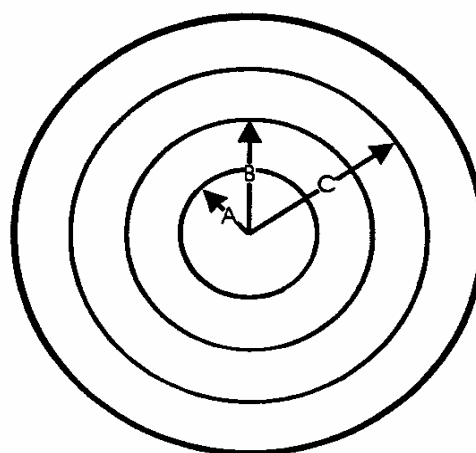
Table 1 - Suspension

Table 2 - Number of cables

Silo diameter in meters	6	8	10	12	14	16	18	20	22	24	26	28	30	35	40
Total number of cables	1	3	3	4	6	7	8	11	12	16	17	19	22	29	34

Table 3 - Placement of cables

	Number of cables placed in centre	1	0	0	1	1	1	1	0	0	0	1	1	0	0	1
Suspension	Distance from centre in meters		2.2	2.5	3.2	4.7	5.6	6.0	2.4	2.7	3.0	5.2	5.5	2.5	2.8	5.6
Point	Number of cables		3	3	3	5	6	7	3	3	6	6	6	3	3	5
Radius A	Angle degree between two cables		120	120	120	72	60	51	120	120	120	60	60	120	120	72
Suspension	Distance from centre in meters								7.5	8.2	9.0	10.5	10.5	7.6	8.6	11.3
Point	Number of cables								8	9	10	10	12	7	10	10
Radius B	Angle degree between two cables								45	40	36	36	30	51	36	36
Suspension	Distance from centre in meters													12.8	14.5	17.0
Point	Number of cables													12	16	18
Radius C	Angle degree between two cables													30	22.5	20

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