



# DETECTORS & TRANSMITTERS



## E-CSS-100 SERIES CONDUCTIVITY TYPE LEVEL DETECTORS

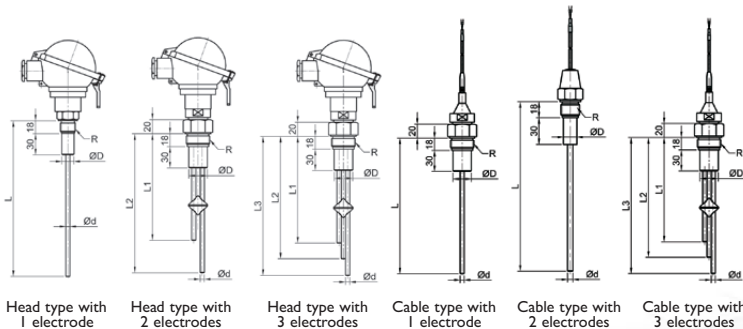
Conductivity type level detectors have wide range applications in detecting the level of fluids. E-CSS-100 series level detectors could be used for conductive liquids.

### TECHNICAL SPECIFICATIONS

ELECTRONIC UNIT	
Power supply	220 V +5%, -10%
Power consumption	4 VA
Operating temperature	0-50°C
Relay	1x(NO-0-NC) 250V/5A 2x(NO-0)

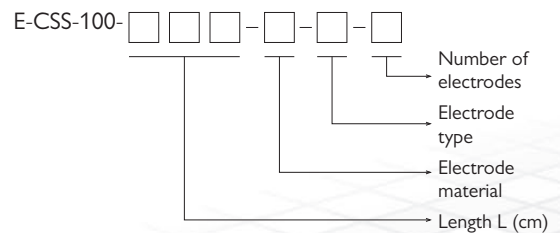
ELECTRODE UNIT	
Pressure	2 Bars
Operating temperature	0-100°C
Max. length	200 cm
Min. length	15 cm
Protecting class	IP 65
Connection	G½" or G1" male

### STANDARD TYPES AND DRAWINGS

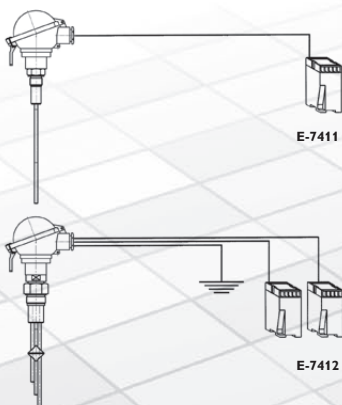


Head type with 1 electrode    Head type with 2 electrodes    Head type with 3 electrodes  
Cable type with 1 electrode    Cable type with 2 electrodes    Cable type with 3 electrodes

### HOW TO ORDER

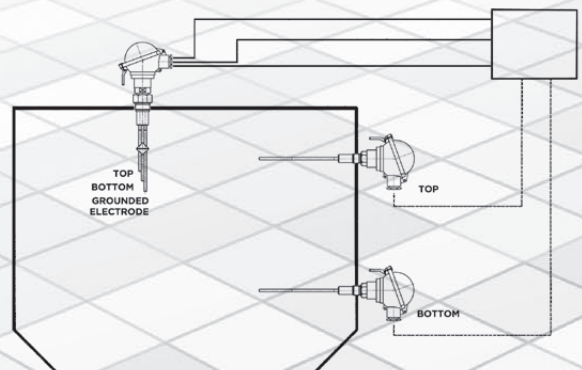


### ELECTRONIC UNITS



LENGTH (cm)	
Minimum	010
⋮	⋮
Maximum	200

ELECTRODE MATERIAL	
Stainless Steel 304	P
Stainless Steel 316	K
St 35.8	D
Copper	B
Special	Ö



\* If the tank or vessel is not conductive, a separate electrode is used for grounding.

ELECTRODE TYPE	
Head	K
Fixed Cable	S

NR. OF ELECTRODES	
One Electrode	1
Two Electrodes	2
Three Electrodes	3

## APPLICATIONS

- Conductivity of the liquid should be minimum 15  $\mu\text{s}/\text{cm}$
- Controlling of min, medium, max levels of liquids
  - Protection of idle operation of motors
  - Overflow protection

\* Application should be specified

\* For fixed cable types, the length of cable should be indicated

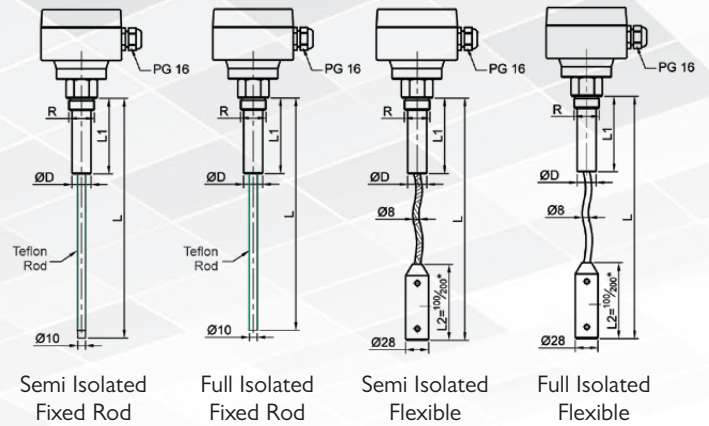
## E-KSS-100 SERIES CAPACITIVE TYPE LEVEL DETECTORS

Capacitive type level detectors have wide range of applications in detecting the level of both liquids and solids. E-KSS-100 series level detectors operate on the principle of capacitance change.

### TECHNICAL SPECIFICATIONS

Supply Voltage	15-30 Volt	
Supply Current	20 mA max.	
Detection Distance	0-50 mm	
Output	4-20 mA, Relay, NPN, PNP	
Output Current	100 mA max.	
Pressure	2 Bars max.	
Operating Temperature	Electronic Unit 0 - 50°C	Electrode Unit 0 - 100°C
Maximum Length	Fixed Rod: 100 cm	Flexible Electrode: 500 cm
Minimum Length	10 cm	
Protection Class	IP 65	
Connection	1" NPT or G1"	

### STANDARD TYPES



### STRUCTURE

Capacitive level detectors consists of two units.

**Detector Head :** Cast aluminium head with electronic circuit

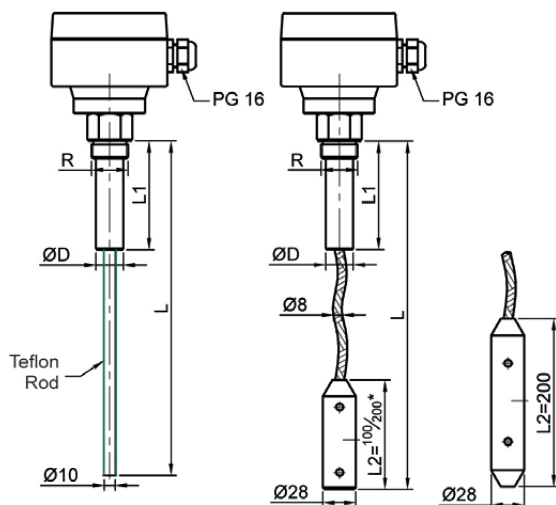
**Electrode :** There are two types of electrodes

- Fixed rod electrode
- Flexible electrode

### INDUSTRIES

- Oil
- Cement
- Plastic, Granule Plastic
- Flour
- Quartz Powder
- Coal
- Sugar
- Sand
- Grains, Crops
- Lime
- Acid
- Water
- Waste water
- Turbid water

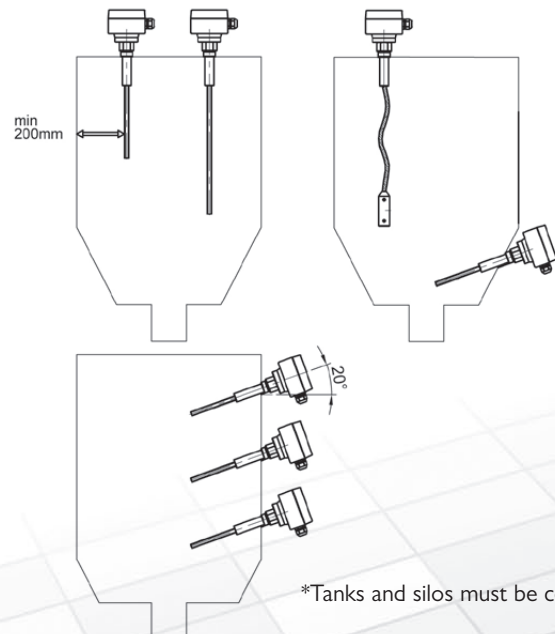
### DRAWING



L1 = 50 mm      L < 1 m  
 L1 = 100 mm    1 m < L < 3 m  
 L1 = 200 mm    3 m < L < 5 m

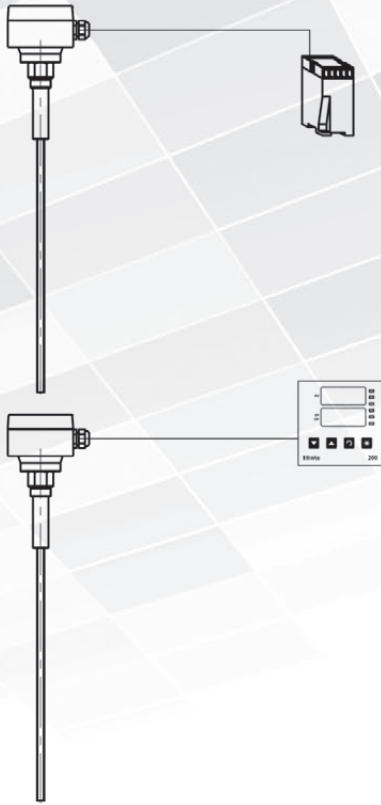
### APPLICATION

Electrode is the most important unit in capacitive type level switches. Installation is very much important for satisfactory and reliable operation of level detectors for a long life.



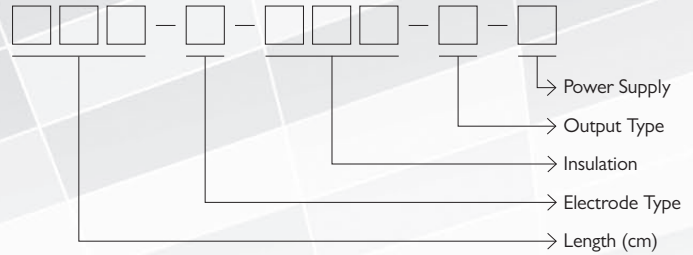
\*Tanks and silos must be conductive.

## ■ ELECTRONIC UNITS



## ■ HOW TO ORDER

E-KSS-100-



LENGTH	Min (cm)	.....	Max (cm)
Fixed	015	.....	100
Flexible	020	.....	500

ELECTRODE	
Ç	Rod
E	Flexible

OUTPUT TYPE	
0	Relay
1	Transmitter
2	4-20mA

OUTPUT TYPE	
TEF	Teflon
TKF	Teflon Coating
PVC	PVC
KAU	Rubber
OOO	Not isolated

POWER SUPPLY	
0	220 V 50 Hz
1	18-30 VDC

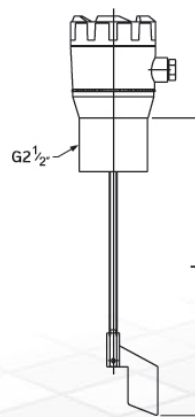
## E-MSS-110 SERIES MOTORIZED TYPE LEVEL DETECTORS

Motorized type level detectors have wide range of applications in detecting the levels of solid materials. They are preferred in many applications as they do not require maintenance and repair after installation and they are economical.

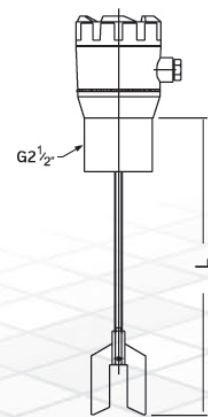
### ■ TECHNICAL SPECIFICATIONS

Power Supply	85-265 VAC / 85-375 VDC 14-26 VAC / 16-36 VDC
Power Consumption	Max. 2 W
Switching	1 RPM
Motor Speed	4-20 mA, Relay, NPN, PNP
Head Temperature	0 - 60°C
Electrode Temperature	0 - 100°C
Maximum Length	100 cm
Minimum Length	25 cm
Contact Capacity	250 V / 2A 1x(NO-0-NC)
Opening / Closing Number	500.000
Protection Class	IP 65
Connection	G2 1/2" Male

### ■ STANDARD TYPES

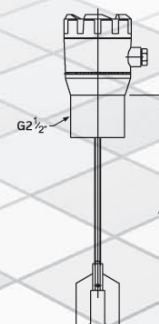
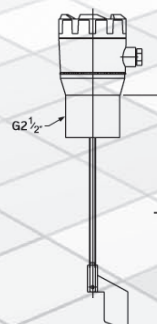
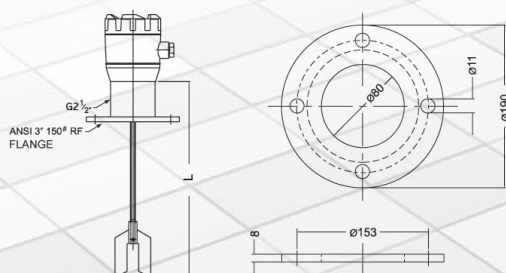


Single Blade

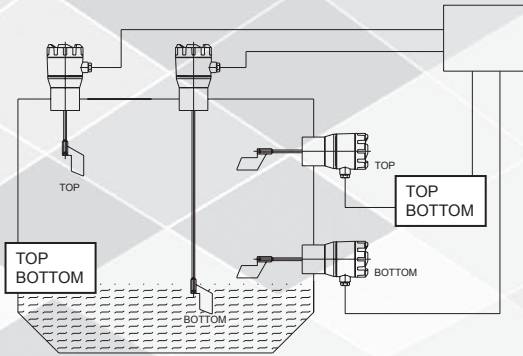


Double Blade

### ■ DRAWING



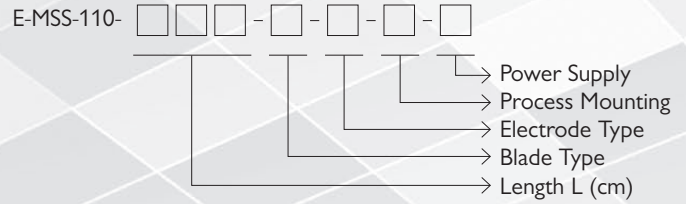
## ■ INSTALLATION



## ■ APPLICATION

- Grains, crops
- Coal powder
- Ore
- Cement
- Coal
- Plastic, granule plastic
- Flour
- Solids like given list

## ■ HOW TO ORDER



LENGTH (cm)	
Minimum	025
⋮	⋮
Maximum	100**

BLADE TYPE	
Single Blade	T
Double Blade	C

ELECTRODE TYPE	
Fixed	S
Flexible (Rope)	E

PROCESS MOUNTING	
G2 1/2" Coupling (Stainless Steel)	2
DN 65 PN 6 Flange (Stainless Steel)	4
G1 1/2" Coupling (Stainless Steel)	5

POWER SUPPLY	
85-265 VAC / 85-375 VDC	0
14-26 VAC / 16-36 VDC	1

\* Application must be fully specified when placing an order.

\*\* Max. 50cm. length in horizontal moutage

\*\*\* Flange thickness 4 mm

For applications above 100 °C, contact Elimko.

## TEMPERATURE TRANSMITTER

Temperature Transmitters are supplied with 24 volts with two wires and 4-20 mA signal is received through the same lines

## ■ TECHNICAL SPECIFICATIONS

Accuracy	0.5
Operating (Head) Temperature	0-50°C
Power Supply	24 V dc
Cold Junction Compensation	0-40°C
Output	4-20 mA

## ■ HOW TO ORDER

User first chooses the thermocouple or the resistance thermometer. Elimko thermocouple or resistance thermometer catalogues are used for the selection.

At the end of the thermocouple or the resistance thermometer code the letters "Tr" is added.

## ■ EXAMPLE

TC30 - 1 K 1 P 06 - 16 - Tr/I

- Transmitter (Isolated)
- Length L (cm)
- Power Supply
- Outer diameter of the protecting tube
- Diameter of the element wire
- Element wire
- Single/Double element
- Drawing number

## ■ CONNECTIONS

