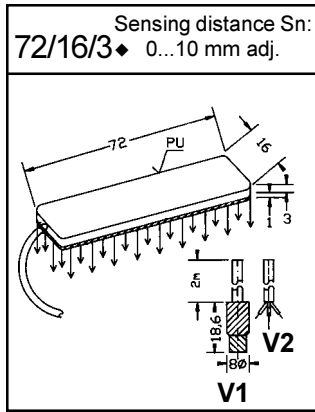
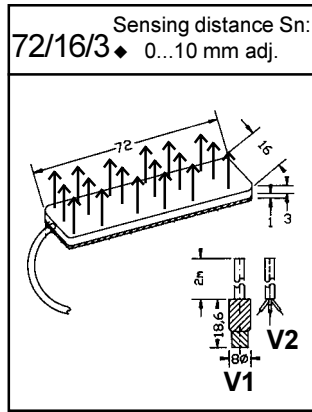


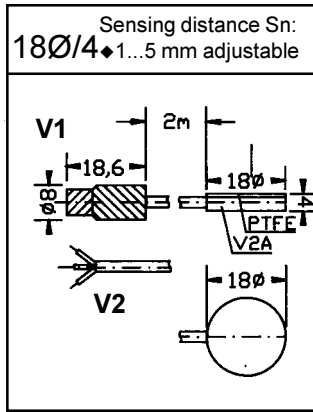
# CAPACITIVE SENSORS - MINI SERIES



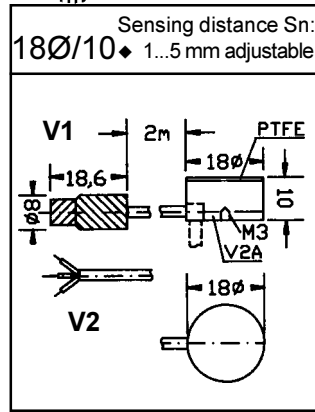
LCFA - 72/16/3 - 10 - F



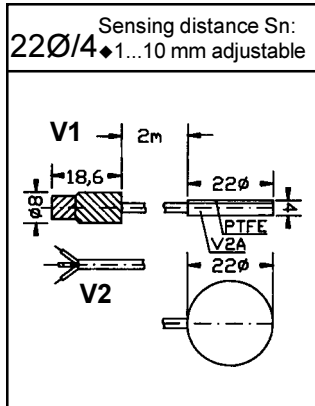
LCFA - 72/16/3 - 10 - F - R



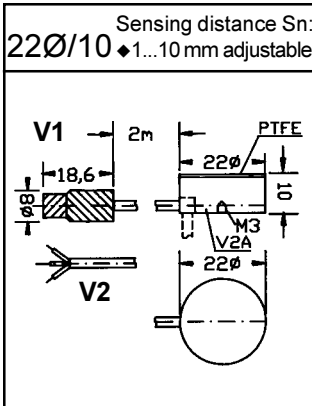
LCA - 18/4 - 5 - F



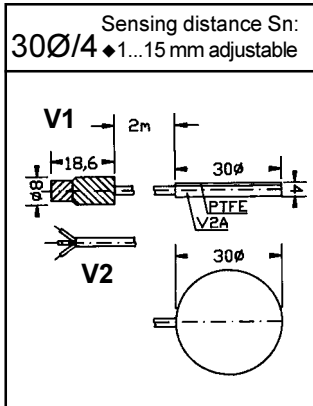
LCA - 18/10 - 5 - F



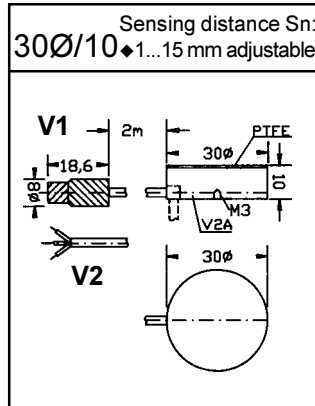
LCA - 22/4 - 10 - F



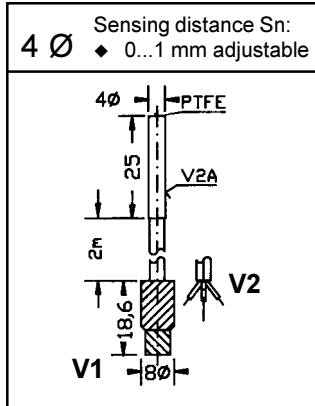
LCA - 22/10 - 10 - F



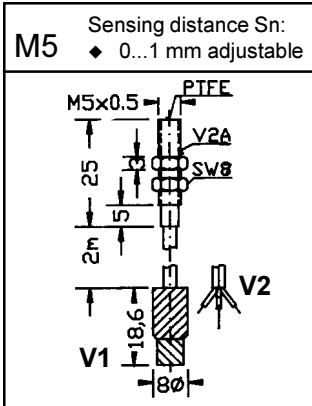
LCA - 30/4 - 15 - F



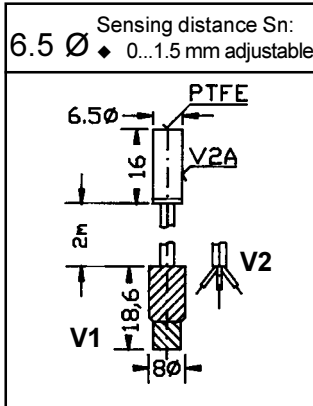
LCA - 30/10 - 15 - F



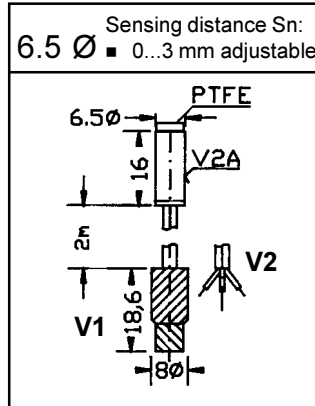
LCA - 4 - 1 - F



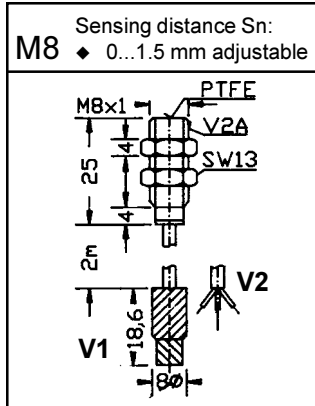
LCA - M5 - 1 - F



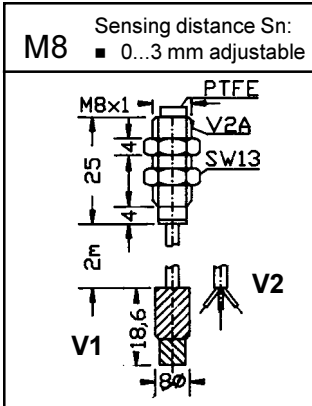
LCA - 6.5 - 1.5 - F



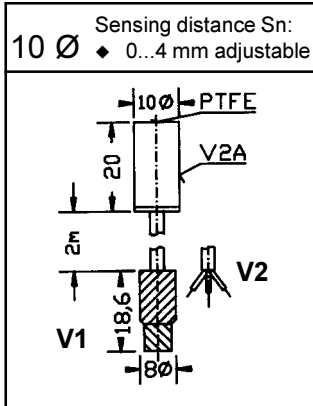
LCA - 6.5 - 3 - NF



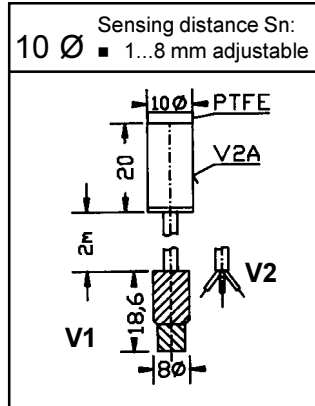
LCA - M8 - 1.5 - F



LCA - M8 - 3 - NF

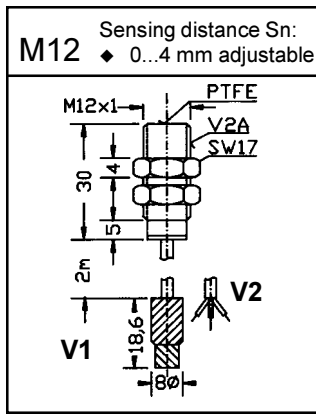


LCA - 10 - 4 - F

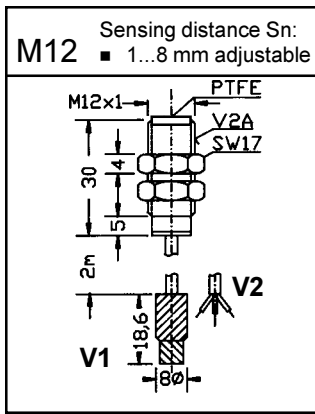


LCA - 10 - 8 - NF

# CAPACITIVE SENSORS - MINI SERIES



LCA - M12 - 4 - F



LCA - M12 - 8 - NF

## Technical Data:

Switching hysteresis	typ. 10% of Sn
Switching frequency	100 Hz
Switchpoint reprod. (T=const.)	≤ 0.01 mm
Ambient temperature	-30... +70°C
Temperature drift	approx. 0.025 mm/°C
Protection class DIN 40050	IP 67
Housing material	depending on unit
LCA	V2A or MS/PTFE
LCFA	Polyurethane
Connection cable 2m	3 x 0.14 mm <sup>2</sup> PUR
Plug-connected	Version V1: Standard
Clamp terminal	Version V2: without Connector
Supply voltage with amplifier	4 ... 8 VDC

## AMPLIFIERS required for mini-series sensors

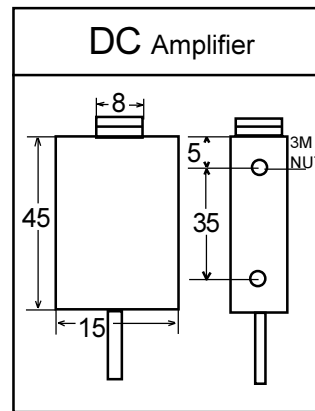
**PART NUMBER KEY for Sensors and Amplifiers.**

Example:  
LCFA-72/16/3-10-F

LCFA	Sensor Type LCFA = Self-adhesive LSA = Amplifier LCA = Mini sensor requiring amplifier
72/16/3	Housing dimensions
10	Max. sensing distance
F	Mounting F = Flush NF = Non-Flush

**Additional Keys for Amplifiers:**

P	Output P = PNP output N = NPN output
NO	NO = Normally open NC = Normally closed



- LSA - 45/30/15 - P - NO
- LSA - 45/30/15 - P - NC
- LSA - 45/30/15 - N - NO
- LSA - 45/30/15 - N - NC

## Technical Data:

Switching frequency	100 Hz
Ambient temperature	-30... +70°C
Protection class DIN 40050 (housing)	IP 65
Protection class DIN 40050 (clamps)	NA
Housing material	Duroplast type 31
Clamp-housing	NA
Type of connection	3 x 0.14 mm <sup>2</sup> PUR-cable
Supply voltage U <sub>B</sub>	10 .. 35 VDC
Permissible ripple	≤ 10% U <sub>B</sub>
No-load current (24 VDC)	approx. 10 mA
Output current I <sub>A</sub> maximum	300 mA
Max. switching power	7.2 W
Supply voltage for sensor	4 ... 8 VDC
Residual voltage U <sub>A</sub> L-signal	approx. 1.4VDC
Residual voltage U <sub>A</sub> H-signal	approx. U <sub>B</sub> VDC
Short circuit protection	Included
Overload protection	Included
EMF protection	Included
Reverse polarity protection	Included
Relay contact free of potential	NA
Max. switching current of relay	NA
Max. switching voltage of relay	NA
Connection for sensor	Connector
Sensing distance	Adjustable
Output signal Q and $\bar{Q}$	NA
Timer range	NA
Function	NA