

# Sensors



Transtech Electronic Controls Pty Ltd

# and



Sensores e Instrumentos

# Instruments



INDUCTIVE COMPACT LINE



INDUCTIVE INCREASED DISTANCE



INDUTIVO COMPLEMENTARES



INDUTIVO ESPECIAIS



INDUTIVO NÃO TUBULAR



CONECTORES



PRESSÃO



ULTRASOM



BARREIRAS FOTOELÉTRICAS



FIBRAS ÓPTICAS



FOTOELÉTRICOS



INDUTIVO NÃO TUBULAR PADRÃO



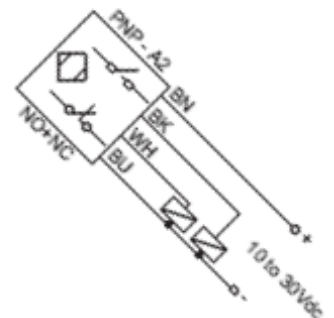
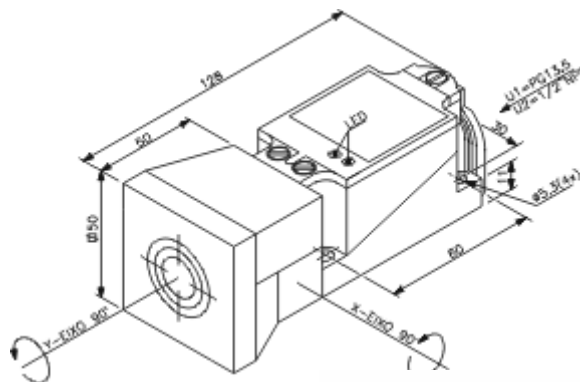
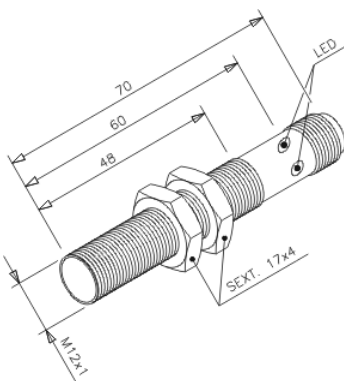
CAPACITIVOS



FOTOELÉTRICOS TUBULAR

## SENSORS

CLICK ON THE CORRESPONDENT IMAGE TO GET INFORMATION



PS

## INDUCTIVE COMPACT LINE



### Ordering Codes

PS 15 -30 GM 50 -A2 -V1

#### Inductive Sensors

#### Nominal Sensing Distance

Sn = 1, 2, 4, 5, 8, 10, 15 mm

#### Diameter

6.5, 8,  
M8x1, M12x1, M18x1, M30x1.5

#### Housing Type

-- - metallic (brass) flat tube  
GM - metallic (brass) threaded tube - side led  
GI - metallic (brass) threaded tube - back led  
GX - metallic (stainless steel) threaded tube - back led  
GT - metallic (brass) threaded teflon plated - back led  
GP - plastic threaded tube - back led

#### Tube Length

25mm - M8 or 6.5mm, N  
45mm - M8 or 6.5mm, E and E2  
50mm - M12, M18 and M30  
60mm - M12, W  
70mm - M12, M18 and M30

#### Electrical Connection

N - Namur 2 wires DC sensors  
N4 - DC 2 wires NO  
N5 - DC 2 wires NC  
E - DC NPN 3 wires NO  
A - DC NPN 4 wires NO + NC  
E2 - DC PNP 3 wires NO  
A2 - DC PNP 4 wires NO + NC  
WA - AC 2 wires NO  
WF - AC 2 wires NC  
W3A - AC 3 wires NO  
W3F - AC 3 wires NC  
Specifications, see pages: 2-1.28 and 2-1.29

#### Connection

-- standard - PVC cable 2m long  
6 - PVC cable 6m long  
PU - polyurethane 2m long  
V1 - 4 pins male M12 connector  
V8 - 3 or 4 pins male M8 connector

PSL

## INDUCTIVE INCREASED DISTANCE



### Ordering Codes

PSL 8 -18 GI 30 -E2 -V1

**Inductive Sensors  
Increased Distance**

**Nominal Sensing Distance**

Sn = 4, 8, 15, 16, 30 mm

**Diameter**

M12x1, M18x1, M30x1.5

**Housing Type**

GI - metallic (brass) threaded tube - back led

**Tube Length**

30mm - M12, M18 and M30 with (cable)

50mm - M12, M18 and M30 with (cable and connector)

**Electrical Connection**

E - DC NPN 3 wires NO

E2 - DC PNP 3 wires NO

**Connection**

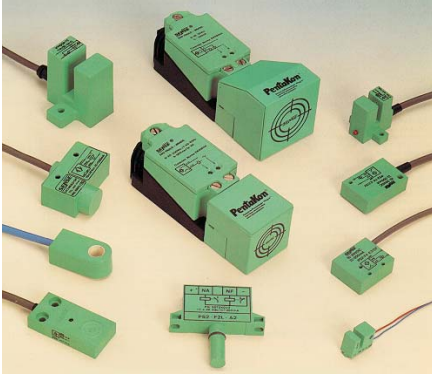
-- standard - PVC cable 2m long

6 - PVC cable 6m long

V1 - 4 pins male M12 connector

PS

## INDUCTIVE RECTANGULAR LINE



### Ordering Codes

PS 5 -F1- A- VT

#### Sensor Shape

PS - inductive sensor  
PAL - aluminium detector sensor  
AS - ring inductive sensor  
RS - slot inductive sensor

#### Nominal Sensing Distance

Sn = 2, 4, 5, 7, 12, 17, 25, 40, 60

#### Sensor Type

F1 - limit switch shape, Sn=5mm  
F2L - sensor for multiple limit switch, Sn=2mm  
F3 - slim sensor, Sn=5mm  
F4 - micro sensor, Sn=2mm  
F5 - micro sensor, Sn=2mm  
F7 - limit switch shape, Sn=2 and Sn=4mm  
F9 - faston terminal type, Sn=5mm  
M - limit switch shape, Sn=5mm  
M3 - sensor for valve transmitter, Sn=2mm  
K1 - metallic base, Sn=12mm e Sn=17mm  
K7 - plastic sensor Sn=25mm  
110 - Long rectangular Sn=6mm  
U1 - standard 5 position sensor Sn=15, 20, 30 and 40mm  
D1 - standard sensor Sn=40 and 60mm

#### Electrical Connection

AN - DC analogic output sensor 0-20mA  
N - Namur 2 wires DC sensors  
N4 - DC 2 wires NO  
N5 - DC 2 wires NC  
E - DC NPN 3 wires NO  
A - DC NPN 4 wires NO + NC  
E2 - DC PNP 3 wires NO  
A2 - DC PNP 4 wires NO + NC  
W - AC 2 wires programable NO/NC  
W3 - AC 3 wires programable NO/NC  
WA - AC 2 wires NO  
WF - AC 2 wires NC  
W3A - AC 3 wires NO  
W3F - AC 3 wires NC  
Specifications, see pages: 2-3.17, 2-3.18 and 2-3.19

#### Plugs

V - 5 pins male M30 connector  
V1 - 4 pins male M12 connector  
VT - with screwed terminals

#### Voltage Range

SX - for Namur: 8Vdc 5%  
SY - for WA, WF, W3: 20 to 250Vac  
SZ - for E, E2, A, A2: 10 to 30Vdc

CS

## CAPACITIVE LINE



### Ordering Codes

CS 20 -30 RV1 -WA /SY

#### Capacitive Sensor

**Nominal Sensing Distance**  
Sn = 3, 6, 10, 15, 20, 30 mm

**Diameter**  
32, M18x1, M30x1.5, M36x1.5

#### Housing Type

H - metallic (brass) threaded tube  
I - metallic (brass) threaded short tube  
R - plastic threaded tube  
P - plastic flat tube  
V1 - metallic (brass) threaded tube with 4 pins M12 connector  
RV1 - plastic threaded tube with 4 pins M12 connector  
PV1 - plastic flat tube with 4 pins M12 connector

#### Electrical Connection

A - DC NPN 4 wires NO + NC  
A2 - DC PNP 4 wires NO + NC  
WA - AC 2 wires NO  
WF - AC 2 wires NC  
Specifications, see page: 3-1.8

#### Voltage Range

SX - for Namur: 8Vdc 5%  
SY - for WA and WF: 20 to 250Vac  
SZ - for A and A2: 10 to 30Vdc

GI70

PHOTOELECTRIC CYLINDRICAL



Ordering Codes

OS 300 -18 GI 70 -A -V

**Sensor Type**

OS - diffuse  
OR - retro reflective  
TO - transmitter  
RO - receiver

**Nominal Sensing Distance**

OS - 300mm and 1K (1m)  
OR - 2K (2m) and 6K (6m)  
TO - 20, 60m  
RO - 20, 60m

**Diameter**

M18x1, M30x1.5

**Housing Type**

GI - metallic (brass) threaded tube

**Tube Length**

M18 - 70mm  
M30 - 70mm

**Electrical Connection**

A - DC NPN 4 wires NO + NC  
A2 - DC PNP 4 wires NO + NC  
W3A - AC 3 wires NO  
W3F - AC 3 wires NC  
S - for TO: 10 to 30Vdc

Specifications, see page: 4-1.7 and 4-1.8

**Options**

V1 - 4 pins male M12 connector

**Light-on:** the load is powered (black wire) when the receptor receives the light.

**Dark-on:** the load is powered (black wire) when the receptor does not receive any light.

**PS:** The white wire output (pin 2) works inverted comparing the black wire output (pin 4).

**Note:** The reflector is supplied with the retro reflective sensors, please select the suitable reflector from our options, page 4-1.8.

**VF**

## PHOTOELECTRIC MULTI-VOLTAGE



### Ordering Codes

**OR 3K -VF -RTF**

#### Photoelectric Sensor

##### Sensor Type

TR10 - thru beam for 10m  
OR3K - polarized retro reflective for 3m  
OR5K - retro reflective for 5m  
OS500 - diffuse for 500mm  
OS1K - diffuse for 1m

##### Model

VF - full range power supply terminal connection

##### Output

S - NPN and PNP output transistor  
F - with polarized filter  
RT - relay output with timer

KMV

## RELAY AND TIMER UNITS

### Ordering Codes

KMV -100

/110-220Vac

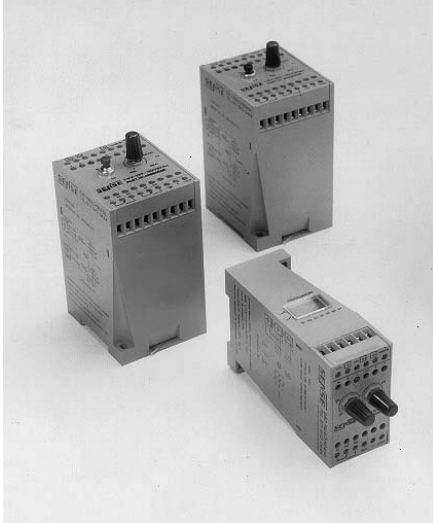
#### Terminal Box

#### Type

- 100 - sensor power supply with SPDT relay
- 101 - sensor power supply with DPDT relay
- 102 - double sensor power supply with SPDT relay
- 103 - sensor power supply with timer
- 118 - sensor level control
- 150 - for M8 and M12 photoelectric sensor
- 228 - frequency / current conversor 4-20mA
- 229 - frequency / current conversor 0-20mA
- 235 - rotation direction detector
- 333 - speed and rotation monitoring
- 400 - indicator speed and rotation monitoring

#### Input Voltage

- bivolt - 110-220Vac
- 110Vac
- 220Vac

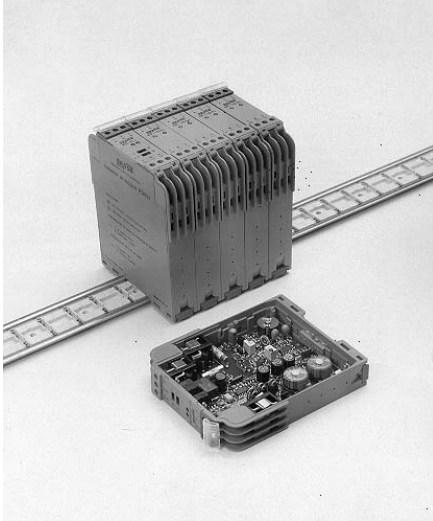




**KD**

**ISOLATOR UNITS**

**Ordering Codes**



**KD-**

**721T**

**/24Vdc**

**Terminal Box**

**Type**

- 645T - voltage convertor
- 699 - signal monitor (trip)
- 721T - analog 4-20mA isolator
- 722T - double 4-20mA isolator
- 723T - current / voltage convertor

**Power Voltage**

24Vdc

ASI

AS-Interface

## Ordering Codes

ASI-MD ..

### Sensor and Actuator Network

#### Master

ASI-1078 - DeviceNet gateway  
ASI-1052 - Master with PLC

#### ASI Power Supply

ASI-KF-3002/110-220Vac

#### Sensors

PS15+U1+ASI - Pentakon inductive sensor  
OS1K-VF-ASI - VF diffuse sensor  
OR3K-VF-ASI - VF retro reflective sensor

#### Terminal Modules

ASI-MD-4EP-VT - 4 inputs  
ASI-MD-2EP-2ST-VT - 2 inputs plus 2 outputs  
ASI-MD-4ST-VT - 4 outputs  
ASI-MD-4EP-4ST-VT - 4 inputs plus 2 outputs

#### M12 Connector Modules

ASI-MD-4EP-V1 - 4 inputs  
ASI-MD-2EP-2ST-V1 - 2 inputs plus 2 outputs  
ASI-MD-4ST-V1 - 4 outputs  
ASI-MD-4EP-4ST-V1 - 4 inputs plus 2 outputs

#### Terminal Box

ASI-KD-4EP - 4 inputs  
ASI-KD-2EP-2ST - 2 inputs plus 2 outputs  
ASI-KD-4ST - 4 outputs  
ASI-KD-4EP-4ST - 4 inputs plus 2 outputs

#### Repeater and Extender

ASI-REP - repeater  
ASI-EXP - extender

#### Pushbutton

ASI-BT .... - illuminated pushbutton  
ASI-BBL - illuminated pushbutton

#### Valve Position Transmitter

ASI-MON-2EH-2ST - transistor output  
ASI-MON-2EH-2SR - relay output

#### Connectors

PL-V1A/X - M12 - straight - female / round cable  
PL-V1B/X - M12 - 90° - female / round cable  
PLM-V1A/X - M12 - straight - male / round cable  
PLM-V1B/X - M12 - 90° - male / round cable  
ASI-PL-VY/V1 - M12 - female / flat cable  
ASI-PL-VY/CB06 - round cable / flat cable  
ASI-PL-VY/CBY - flat cable / flat cable  
ASI-PL-VY/PG13.5 - flat cable / PG13.5 (½ NPT)

#### Coupler Module

ASI-BVT - for round cable  
ASI-BY - for flat cable

#### Cable

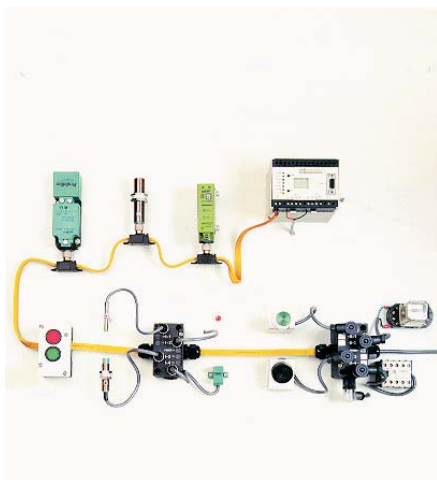
CB-0602 - 2 wires round cable  
CB-0604 - 4 wires round cable  
CB-ASI - flat cable

#### Accessories

ASI-PG11 - cable gland  
ASI-TP11 - sealing  
ASI-PR11 - nuts  
ASI-SPG - flat cable scal  
ASI-TB - cover for couple module

#### Addressing Unit

ASI-ADR1 - addressing



Sense is member of AS-Interface Association

PS

## DOUBLE SENSORS



### Ordering Codes

PS3

M31

-2E2

-V

-0,5

**Inductive Sensors Double**  
(2 sensors in one housing)

**Nominal Sensing Distance**

Sn = 3 mm

#### Plastic Housing

Mounting through 4 screws  
(Mounting kit as optional)

#### Electrical Connection

##### Version with 2 independents outputs:

2E2 - DC PNP 3 wires NO

2N4 - DC PNP 2 wires NO

2N - Namur 2 wires DC sensors

2WA - AC 2 wires NO

#### Output Type

ASI - AS-Interface Network

DN - DeviceNet Network

#### Sensor Connection

2 - 2m PP cable

V1 - male conector 4 pins M12

VY - conector for flat cable

V24 - male connector 7 pins RD24RD24

#### Solenoid Connection

- 0,5 - 0,5m PP cable pigtail 2 wires

PL

## CONNECTORS

### Ordering Codes



PL

V1A

P

-2N

/ 6-PU

#### Connector

##### Connector Type

- V - 5 pins, size M30 screwed terminals 90°
- V1AP - 4 pins size M12 screwed terminals straight
- V1BP - 4 pins, size M12 screwed terminals 90°
- V1C - 4 pins, size M12 90° molded
- V1D - 4 pins, size M12 straight molded
- V83A - 3 pins, size M8 screwed terminals straight
- V83B - 3 pins, size M8 screwed terminals 90°
- V83C - 3 pins, size M8 90° molded
- V83D - 3 pins, size M8 straight molded
- V84A - 4 pins, size M8 screwed terminals straight
- V84B - 4 pins, size M8 screwed terminals 90°
- V84C - 4 pins, size M8 90° molded
- V84D - 4 pins, size M8 straight molded

##### Material

- p - plastic
- M - metallic
- S - snap on type

##### Options

- 2N - for NPN sensor with 2 leds
- 2P - for PNP sensor with 2 leds
- WA - for AC sensor (WA)
- WF - for AC sensor (WF)

##### Cable

- Standard: 3m and 6m
- X - cable length (special)

##### Cable Material

- Standard: PVC
- /PU - polyurethane



## Ordering Codes

### DN-MD ..

#### Sensor and Actuator Network

##### Sensors

PS15+U1+DN - Pentakon Inductive sensor  
 OS1K-VF-DN - VF photoelectric diffuse sensor  
 OR3K-VF-DN - VF photoelectric retro reflective sensor

##### Terminal Modules

DN-MD-8EP-VT - 8 inputs  
 DN-MD-4EP-4ST-VT - 4 inputs plus 4 outputs  
 DN-MD-16EP-VT - 16 inputs  
 DN-MD-8EP-8ST-VT - 8 inputs plus 8 outputs  
 DN-MD-8EA-1SA-VT - 4 analog inputs plus 1 analog output

##### M12 Connector Modules

DN-MD-8EP-V1 - 8 inputs  
 DN-MD-4EP-4ST-V1 - 4 inputs plus 4 outputs  
 DN-MD-16EP-V1 - 16 inputs  
 DN-MD-8EP-8ST-V1 - 8 inputs plus 8 outputs

##### Terminal Box

DN-KDM-4EP - 4 inputs master units  
 DN-KDE-4EP - 4 inputs slave units  
 DN-KDM-4ST - 4 outputs master units  
 DN-KDE-4ST - 4 outputs slave units

##### Motor Starter

DN-MD-PM-VT

##### Pushbutton

DN-BT .... - illuminated pushbutton

##### Valve Position Transmitter

DN-MON-2EH-2ST - transistor output  
 DN-MON-2EH-2SR - relay output

##### Device Taps

DN-MD-2-VT - 2 taps  
 DN-MD-4-VT - 4 taps  
 DN-MD-8-VT - 8 taps