

# MAGNETIC POSITION DETECTORS

## for "T" grooves

### reed switch type

Series  
**494**  
Type  
2 wires

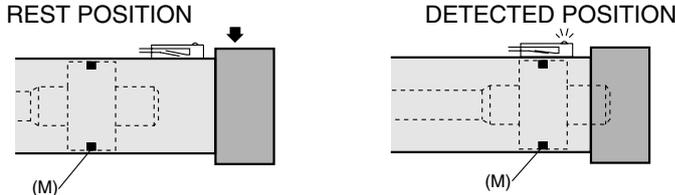


#### FEATURE

- **An universal detector** for any range of cylinders and actuators (cylinders with tie rods, profiled barrels, rounds...)

#### FUNCTIONAL DESCRIPTION

A permanent magnet (M) which is mounted on the piston of the air cylinder activates the reed switch of the non-contact magnetic position detector fastened on the outside of the non-magnetic cylinder barrel.



#### DETECTOR CHARACTERISTICS

MAX. SWITCHING POWER max.	DC = 5 W - AC = 5 VA
SWITCHING VOLTAGE	see below
MAX. SWITCHING CURRENT	100 mA
SHORT-CIRCUIT PROTECTION	no
REVERSE POLARITY PROTECTION	yes (without LED function)
OVERLOAD PROTECTION	no
VOLTAGE DROP (EN 60947-5-2)	< 5 volt
BREAKDOWN VOLTAGE	230 V DC
CONTACT RESISTANCE	0,2 ohm max.
INSULATION RESISTANCE	10 <sup>9</sup> ohms at 100 V
SENSITIVITY	2,1 mTesla (21 Gauss)
REPOSE TIME	0,1 ms opening - 0,6 ms closing
REPEATABILITY	< ± 0,2 mm
WORKING TEMPERATURE	- 25°C , + 70°C
HOUSING	PA + FG overmolding
CABLE	PUR, resistant to cutting oils
DEGREE OF PROTECTION (CEI 60529)	IP 67
PROTECTION CLASS	cable outlet: class II, M8 and M12 connection: class III
APPROVAL	CE
SIGNAL INDICATION	yellow diode (LED) which lights up when the contact is established

#### CHOICE OF DETECTOR

Voltage	5 to 120 Volt AC/DC		5 to 50 Volt CA 5 to 60 Volt CC		
	Connection	PUR lead, 2 or 5 m long, 2 wires 0.14 mm <sup>2</sup> , stripped ends 	3 pin screw-type male connector Ø M8 	0.3 m PUR lead + 3-pin plug-in male connector and Ø M8 	0.3 m PUR lead + 3-pin screw-type male connector, Ø M12 
			connection of pins		
	2 m	5 m	1 - 4	1 - 4	1 - 3
weight (g)	22	50	5	7	7
compatible cylinders series:	<b>STANDARD CATALOGUE NUMBER detector</b> detector supplied with cable holding clip (versions with lead outlet only) and adjustment position stop (all versions)				
449 (1)					
453 (voir P291/5-6)					
435 - 438 (2) 441 - 447 (P2L-P2B)	P494A0021300A00	P494A0021100A00	P494A0021400A00	P494A0021500A00	P494A0021600A00
450 - 454 437 (PCN)					(3)
					P494A0021700A00

- (1) Detector allow direct fitting on "T" cylinder grooves  
 (2) Need a kit of fixation, see pages P291 5 and 6 (454 Series, see page P229-7)  
 (3) U.S. market

**ACCESSORIES AND OTHER ELECTRICAL CHARACTERISTICS:** see following page

All leaflets are available on: [www.asconumatics.eu](http://www.asconumatics.eu)

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**P291-1**

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**B**

**MAXIMUM ELECTRICAL CHARACTERISTICS AND PROTECTION OF MAGNETIC DETECTOR (REED SWITCH)**

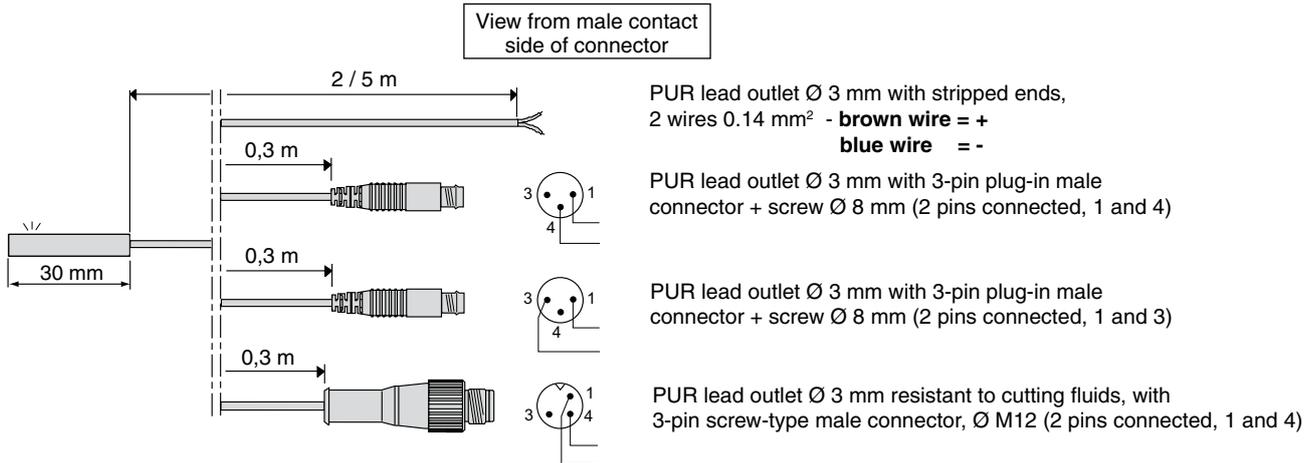
Maxi switching current : 100mA

For inductive loads (valves, contactors, ...), external protection is required to avoid damage caused by switch-off voltage peaks. Use freewheeling diode, transil diode, varistor or similar.

**PARTICULAR APPLICATIONS** (valid for all models)

- Detectors used for direct control of incandescent lamps:  
The capacity specified on the lamp is based on its resistance when hot. When switched on, the resistance of the cold lamp is very low. Therefore, the current rises quickly and may exceed the reed switch rating. Allowance should therefore be made for the real power of the cold lamp.
- With leads longer than 10 m, a 200 Ω resistor must be fitted in series with the detector to reduce the capacitive effect caused by the wiring.

**REED SWITCH CONNECTION : 4 possibilities**



**Mounting recommendation:**

Do not subject the detector's power supply cable to damaging traction / torsion during its service life.

**ACCESSORIES**

description		catalogue number
extension consisting of PVC, length 5 m, 3 wire conductors 0.25 mm <sup>2</sup> with 1 screw-on <b>female M8</b> connector (other end plain), IP67		<b>P4994406200N001</b>
extension consisting of PVC, length 5 m, 3 wire conductors 0.25 mm <sup>2</sup> with 1 screw-on <b>female M12</b> connector (other end plain), IP67		<b>P4994406210N001</b>
<b>straight</b> 3-pin female connector Ø M8, IP67		<b>P4994406220N001</b>
<b>Right angle</b> 3-pin female connector Ø M8, orientable 90° x 90°, IP67		<b>P4994406230N001</b>
Block of memorizing position of adjustment detector		<b>P4994406160N001</b>