



## Gel-filled pH-Combined Electrode



measuring  
•  
monitoring  
•  
analysing

### EXPERT-LINE



- Measuring range  
pH 1 to 12
- Dirt-repelling,  
PTFE ring diaphragm,  
can be sterilised
- Maintenance-free  
KCl gel fill
- Temperature range  
-15 to +80 °C
- Rated pressure  
up to 6 bar
- Built-in salt bridge,  
(protection against  
electrode poisons  
such as S<sup>2-</sup>, CN<sup>-</sup>)
- Long discharge cartridge,  
giving a considerably  
longer life
- Option:  
integrated temperature  
sensor



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**Model:**  
APS-X1Q

**Description**

The standard electrode for pH value is suited for almost all applications in the area of process water analysis and water treatment. The dirt-repelling ring diaphragm made of PTFE allows it to be used under difficult conditions, for example in very dirty or oily media. To extend the service life the combined electrode is filled with KCl gel and contains a long discharge plate. It is thus very easy to operate and requires little or no maintenance. The built-in salt bridge offers improved protection against electrode poisons such as S<sup>2-</sup> or CN<sup>-</sup>.

The length of the electrode is 120 mm. The connection head is a conduit thread 13.5 screwing.

Connection cable model APK-X is required when using the electrode.

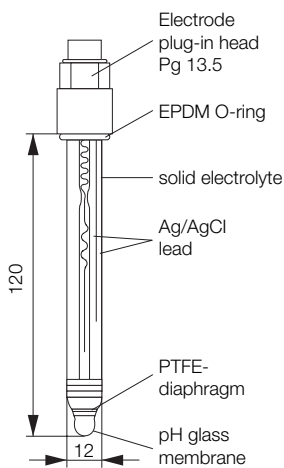
**Connection cable and connector socket for pH electrodes model APS-X1Q**

- Measuring cable with outer screen and coaxial conductor
- Kabelmantel: PVC
- Cable diameter: 7 mm, 5 mm (APK-X5S)
- Thermostability: -25...+85°C  
-10...+80°C (APK-X5S)
- Length: 5 metre, 10 metre

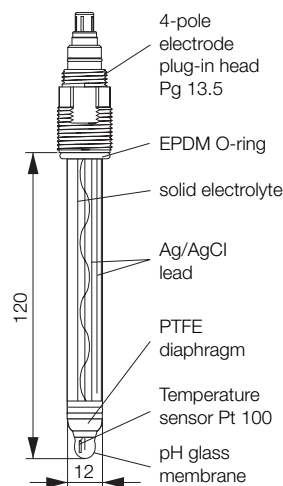
**Standard coaxial cable APK-X5S, -X1S**



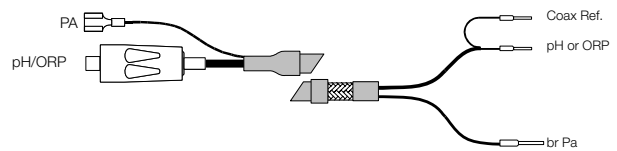
**APS-X1Q without temperature sensor**



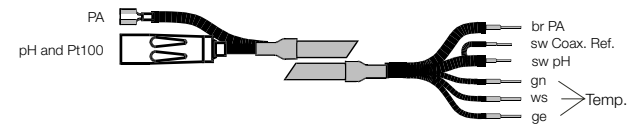
**APS-X1Q with temperature sensor**



**Standard coaxial cable with PA\* APK-X5P, -X1P**



**Coaxial cable for electrodes with Pt 100 APK-X5T, -X1T**



**Technical Data**

Material: process-compatible glass  
 Diaphragm: annular PTFE diaphragm  
 pH-value: 0... 14, 1...12  
 Temperature range: -15...+80°C  
 Resistance to pressure: ≤ 6 bar  
 Shaft length: 120 mm  
 Diameter: 12 mm  
 Threaded plug head: Pg 13.5  
 Minimum conductivity: ≥ 50 µS/cm

**Order Details Connection Cable**

Model	Cable length	Cable type
APK-X	1 = 10 m	S = standard coaxial cable for ORP P = standard coaxial cable with Pa*
	5 = 5 m	T = coaxial cable for electrodes with Pt 100 sensor

\*when using a fitting with an equipotential bonding pin (PA), in order to discharge any disturbance potentials and to ensure higher EMV.

**Order Details Combined Electrode (Example: APS-X 1 Q 1 K 1 A)**

Model	Diaphragm	Material	Measuring range	Temperature sensor	Electrical connection	Shaft length
APS-X	1 = PTFE ring diaphragm, KCl-gel filling	Q = glass	1 = pH 0-14; T = +10...100°C 2 = pH 1-12; T = -15...80°C	K = without temperature sensor T = with integrated Pt 100 sensor	1 = threaded plug head Pg 13.5	A = 120 mm