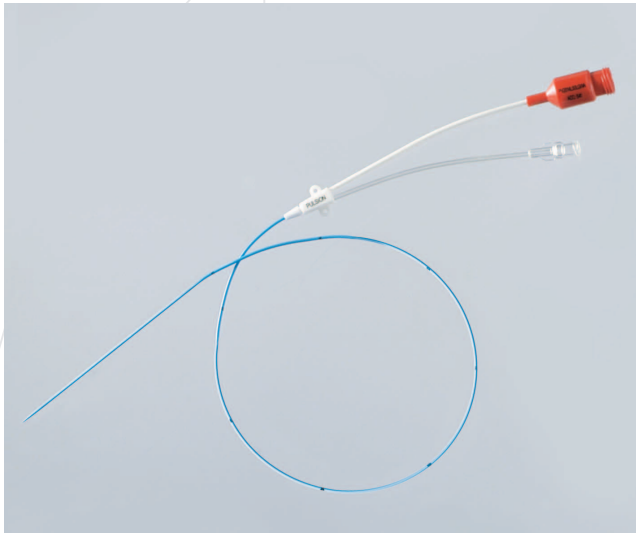


# PiCCO-Technology

## PULSIOCATH for application in the radial artery

### Long thermodilution sensor catheter

for use in the radial artery, for application in the operation room, recovery room and intensive care unit

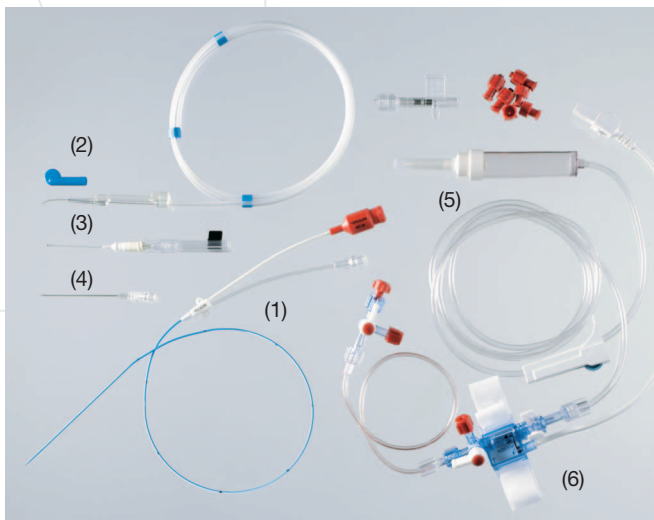


- ✓ Transpulmonary thermodilution and arterial pulse contour analysis in the axillary artery via puncture of the radial artery
- ✓ Optimal signal transmission by a completely harmonised, configured kit
- ✓ Low thrombogeneity by use of polyurethane, latex-free material
- ✓ Catheter-over-needle insertion aid for atraumatic puncture and avoidance of vascular spasms
- ✓ PTFE coated Seldinger wire for easier positioning of the catheter

### Advantages:

- Application of the PiCCO-Technology when the use of other vascular access is not desired or indicated (intra-operative application, femoral vascular prostheses, marked atherosclerosis)
- Easy and fast positioning of the catheter, steep learning curve
- Low complication rate – Application of long radial artery catheters described in the literature with over 16,000 patients [1,2,3]

No Latex



- (1) PV2014L50LGW PULSIOCATH Thermodilution catheter Ø 4F / 18G, length 50 cm, latex-free, DEHP-free
  - (2) Guide wire with one-hand insertion aid Ø 0.025", length 120 cm, soft ends, PTFE coated
- Insertion needles:
- (3) Arrow RA-04220 radial artery cannula Ø 20G / 40 mm
  - (4) Steel needle Ø 20G / 55 mm
  - (5) PV8103 PiCCO Monitoring Kit, consisting of single-use pressure sensor with flush device (3 ml/h) and infusion spike, 30 cm pressure line marked in red and injectate temperature sensor housing PV4046
  - (6) Fixation aid for fixing the pressure sensor on the patient's arm

## Scientific information and current knowledge:

In clinical routine, long radial artery catheters are frequently used for monitoring the arterial blood pressure. They offer the advantage of measuring the aortic pressure at all times. When the pressure is measured peripherally in the radial artery, however, a false low value could potentially be recorded and pressure falsified through pulse wave reflection. [3, 4, 5, 6]

The PiCCO-Technology PULSIONCATH for the radial artery is comparable to the conventional long radial artery catheter, the only difference being the temperature sensor for transpulmonary thermodilution integrated in the tip. Complications and risks involved in positioning long catheters are similar to those of the frequently used short catheter in the radial artery. The occurrence of vascular occlusions, hematomas and catheter defects – all without consequences – is low, and severe complications were reported in less than 1 % of the cases. [3, 4, 7, 8]

*“Monitoring subclavian arterial pressure by percutaneous insertion of a long radial artery catheter provides a reliable estimation of central aortic pressure... Long radial artery catheters are reliable and safe. There were no serious complications in the 68 patients followed prospectively. Long radial catheters have been in routine use in this institution for more than 16 years (over 10.000 cases), and experience with them suggests that complications are rare.” [3]*

*“...in our centre we use central blood pressure monitoring catheters which can be quickly inserted percutaneously into the radial artery with a high success rate and low risk of complications.” [4]*

*“...average insertion time was only 2.8 minutes... Catheters were in place for an average of 3.4 days, with a maximum of 25 days.” [8]*

*“Long radial artery catheters...provide an accurate estimate of central aortic pressure after CPB (cardiopulmonary bypass) when they are advanced into the axillary artery.” [7]*

*“...cardiac output measurement with arterial thermodilution with a radial catheter is interchangeable with that derived from a pulmonary artery catheter... Arterial thermodilution became unreliable once the catheter had been withdrawn by more than 5 cm...” [1]*

*“The use of long radial catheters has been recently associated, for the pulse contour analysis, with PiCCO technology successfully in 74 patients undergoing cardiac and vascular surgery operations, having no complication.” [2]*

### Article number:

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### Safety instructions

As with all arterial catheters, when using the PULSIONCATH Thermodilution catheter it must be verified that there is sufficient blood flow downstream from the insertion site of the catheter (clinical inspection, palpation of pulse, control of the body temperature, pulse oximetry). Keep to the guidelines for avoiding catheter-related infections. All sterile products offered by PULSION are designed for single use. Please take into account all information on use enclosed with the product, as well as warnings, safety instructions and contra-indications. Subject to technical modifications. No responsibility is accepted for the correctness of this information.



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### References (available on request):

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