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| **Retreiving rod insertion percentage** | **SD** |
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| **Edvin Lindholm** | **DRAFT** |
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# Retreiving rod insertion percentage
## Service Description

Service ID: *"get-rod-insertion"*

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# 1  Overview

This document describes the get-rod-insertion service and its function.

## 1.1  How This Service Is Meant to Be Used

This service is used to retrieve a rod insertion percentage based on the current temperature levels inside of a reactor. The consumer will use this value to insert the reactor control rods to the same percentage as the value, this way the reactor can be held stable. The service also returns the temperature the insertion percentage is based on and the scale.

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# 2   Service Interface

This section lists the function exposed by the service. The abstract function is named after the "function" with the return value after the colon. The information model used is described in Section 3.

## 2.1   function get-rod-insertion () : RodInsertionResponse

This function is called to receive a RodInsertionResponse containing a rod insertion percentage, along with temperature and its scale.

# 3   Information Model

Here the RodInsertionResponse object will be described with its fields and types.

## 3.1   Object RodInsertionResponse

| Field | Type | Description |
|---|---|---|
| rodInsertionPercentage | integer | Percentage value representing how much of the control rods to insert. |
| temperatureValue | integer | Reactor temperature the rodInsertionPercentage is based on. |
| temperatureScale | string | Scale of the temperature value |