

SIEMENS

Process  
instrumentation  
**Process  
instrumentation  
Training**



# Process instrumentation

## Process instrumentation Training

Process instruments for pressure, temperature, flow, and level measurement form an essential part of an industrial process automation system. Pneumatic valve position controllers, process controllers and recorders, as well as process monitoring devices, complete the program.

The main training location is the Siemens Training Center Europe in Karlsruhe. In addition, we offer trainings at the customer's site. Given the limited number of participants, the courses provide room for the exchange of customer-specific topics alongside the regular program.

We are pleased to introduce a new offering: Interactive live online training with practical exercises transmitted via high-definition live streaming.

The trainings are conducted online via streaming, supported by interactive software. No recorded videos are used during the interactive live session. The aforementioned training content is demonstrated live by a trainer and the participants see and learn exactly the same content as in a face-to-face training. Of course, the interactive training offers the same benefits as classroom training: exchange with other course participants or clarification of questions.

This brochure provides an overview of the planned courses.

The prices quoted include the course course itself, the course documentation and catering during the event.

Other costs such as travel and accommodation expenses are not included. Prices are subject to the statutory value-added tax.







Please note that some courses are prerequisites for participation in subsequent courses.

Further information about our course programme can be found at:

<http://www.sitrain-learning.siemens.com/DE/en/rw27322/Process-Instrumentation>

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Course title	Classroom	Online	Content
	For further information scan QR code		
SC-PI1-T1E	4 days BAS 		<p><b>Pressure, Temperature and Positioners - Technology</b>            Combined hands-on training and theory for the technologies pressure, temperature and electropneumatic positioners / Measurement principles / The Siemens product portfolio SITRANS P/T, SITRANS VP and their technical specifications / Handling, operation, commissioning, including remote control via SIMATIC PDM / Diagnostics</p> <p><b>Requirement:</b> Basic knowledge of process instrumentation technology / General knowledge of electrical engineering</p>
SC-PI2-T1E	3 days BAS 		<p><b>Level Measurement - Technology and Sales</b>            Combined hands-on training and theory for level measurement: Measurement principles / The Siemens product portfolio SITRANS L and their technical specifications (e.g. radar and ultrasonic) / Handling, operation, commissioning, including remote control via SIMATIC PDM / Diagnostics</p> <p><b>Requirement:</b> Basic knowledge of process instrumentation technology            General knowledge of electrical engineering</p>
SC-PI2-SPI	2 days BAS 		<p><b>Use of Sonic- and Process Intelligence in Practice</b>            Basics Echo Processing / Ultrasonic, radar and guided wave radar technologies / Signal evaluation / Interpretation of the echo profile of ultrasonic and radar measurement devices / Interpretation of the echo profile of guided wave radar (GWR) measurement devices / Troubleshooting solutions / Special parameters / Practically oriented exercises and exercises on devices</p> <p><b>Requirement:</b> Experience with commissioning and troubleshooting of level measurement devices. / Knowledge of programming and parametrization of ultrasonic, radar and GWR level transmitters</p>
SC-PI2-LEV	2 days BAS 		<p><b>SITRANS Level Update</b>            SITRANS LT500: Device selection and correct configuration / Conditions of use and applications / Hands-on operation and implementation of commissioning / Conversion of old transmitters e.g. SITRANS LT4x, Multiranger, Hydroranger            SITRANS LR5xx – New radar sensor series: Device selection and correct configuration / Conditions of use and applications / Hands-on operation and implementation of commissioning / Conversion of old transmitters e.g. SITRANS LR560, SITRANS LR250            SITRANS LCS100 – New Point Level Probes Series: Device selection and correct configuration / Conditions of use and applications / Hands-on operation and implementation of commissioning</p> <p><b>Requirement:</b> General knowledge of instrumentation</p>
SC-PI3-T1E	3 days BAS 		<p><b>Flow Measurement - Technology</b>            Combined hands-on training and theory for the flow measurement technologies / Measurement principles / The Siemens product portfolio SITRANS F and their technical specifications / Handling, operation, commissioning, including remote control via SIMATIC PDM / Applications and product selection / Diagnostics</p> <p><b>Requirement:</b> Basic knowledge of process instrumentation technology / General knowledge of electrical engineering</p>
SC-PI3-CO	2 days BAS 		<p><b>Clamp-on Ultrasonic Flow Measurements</b>            Ultrasonic clamp-on measurement method / Instrument science / Commissioning / Parametrization / Measurement data analysis / Exercises on a practical demo model / Diagnosis / Optimization / Problem solving / Fault detection / Operating settings / Data backup / Documentation / Support opportunities</p> <p><b>Requirement:</b> Experience with commissioning clamp-on devices</p>

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SC-PI3-FLO	2 days BAS  		<p><b>SITRANS Flow Update</b> SITRANS F – overview technologies and products SITRANS FC5xx Series – New Coriolis Transmitters: Device selection and configuration / Conditions of use and applications / Hands-on operation and implementation of commissioning / Conversion of old transmitters, e.g. SITRANS FC430 SITRANS FMT020 – New MAG transmitters: Device selection and configuration / Conditions of use and applications / Hands-on operation and implementation of commissioning / Conversion of old transmitters, e.g. SITRANS MAG5000/6000</p> <p><b>Requirement:</b> General knowledge of instrumentation</p>
SC-PI-INTE	4 days BAS  		<p><b>Process Instrumentation - Introduction</b> Hands on training for the technologies pressure, temperature, level and flow measurement, as well as electro-pneumatic positioners Product training / Selection and configuration of the instrumentation devices (PI devices catalog and PIA Selector) / Process Instrumentation within Siemens Process Automation / Process Device Management via SIMATIC PDM</p> <p><b>Requirements:</b> Basic knowledge of process instrumentation technology / General knowledge of electrical engineering</p>
SC-PI-P	6 hours BAS	6 hours BAS  	<p><b>Pressure Technology - Basics</b> Basics pressure measurement / The Siemens product portfolio SITRANS P and their technical specifications / SITRANS P320 / P420 Measuring cells / Ordering example</p> <p><b>Requirement:</b> Basic knowledge of process instrumentation technology / General knowledge of electrical engineering</p>
SC-PI-T	3 hours BAS	3 hours BAS  	<p><b>Temperature Technology - Basics</b> Basic theory for the technology temperature / Basics temperature measurement / The Siemens product portfolio SITRANS T and their technical specifications / Ordering example</p> <p><b>Requirement:</b> Basic knowledge of process instrumentation technology / General knowledge of electrical engineering</p>
SC-PI-VP	6 hours BAS	6 hours BAS  	<p><b>Valve Positioner Technology - Basics</b> Basic theory for the technology electropneumatic valve positioner / Basics electro-pneumatic positioner / The Siemens product portfolio SIPART PS and their technical specifications / Ordering example</p> <p><b>Requirement:</b> Basic knowledge of process instrumentation technology / General knowledge of electrical engineering</p>
SC-PI-L	6 hours 2 days (3 hours/day) BAS	6 hours 2 days (3 hours/day) BAS  	<p><b>Level Technology - Basics</b> Basic theory for the technology level / Basics measurement principles. / The Siemens product portfolio SITRANS L and their technical specifications (e.g. radar, ultrasonic, etc) / Ordering example</p> <p><b>Requirement:</b> Basic knowledge of process instrumentation technology / General knowledge of electrical engineering</p>

Course title	Classroom	Online	Content
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<b>SC-PI-FMAG</b>	6 hours 2 days (3 hours/day) BAS	6 hours 2 days (3 hours/day) BAS	<p><b>Flow Technology – SITRANS FM MAG8000</b></p> <p>This training covers the main aspects of our SITRANS FM MAG8000 family: an overview with clear application examples, guidelines to size a MAG 8000 CT, installing and mounting information, potential equalization, grounding, commissioning aspects, battery lifetime, etc.</p> <p>It also covers the 3G- Module and the IIoT Wireless Communication Module. Ordering examples using PIA Life Cycle Portal round off this course</p> <p><b>Requirement:</b> Basic knowledge of Process Instrumentation, specially flow technologies. General knowledge of electrical engineering</p>
<b>SC-PI-F</b>	6 hours 2 days (3 hours/day) BAS	6 hours 2 days (3 hours/day) BAS	<p><b>Flow Technology - Basics</b></p> <p>Basic theory for the technology flow / Basics measurement principles. / The Siemens product portfolio SITRANS F and their technical specifications / Ordering example</p> <p><b>Requirement:</b> Basic knowledge of process instrumentation technology / General knowledge of electrical engineering</p>

**Siemens AG**

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