

# ISO 16823:2025-01 (E)

## Non-destructive testing - Ultrasonic testing - Through-transmission technique

---

<b>Contents</b>		<b>Page</b>
<b>Foreword</b>		<b>iv</b>
<b>Introduction</b>		<b>v</b>
<b>1</b>	<b>Scope</b>	<b>1</b>
<b>2</b>	<b>Normative references</b>	<b>1</b>
<b>3</b>	<b>Terms and definitions</b>	<b>1</b>
<b>4</b>	<b>NDT personnel</b>	<b>2</b>
<b>5</b>	<b>Test equipment</b>	<b>2</b>
5.1	Instrument	2
5.2	Probes	2
5.2.1	General	2
5.2.2	Probe selection	2
5.2.3	Frequency and dimensions of transducer	2
5.2.4	Dead zone	3
5.2.5	Damping	3
5.2.6	Focusing probes	3
5.3	Coupling media	3
5.4	Standard blocks	3
5.5	Reference blocks	4
5.6	Specific test blocks	4
<b>6</b>	<b>Principles of testing</b>	<b>4</b>
6.1	Basic techniques and setup	4
6.2	Capability of detection of discontinuities	6
6.3	Requirements for geometry and access	6
6.4	Effects of variations in coupling, angulation and alignment of probes	6
<b>7</b>	<b>Test technique</b>	<b>7</b>
7.1	General	7
7.2	Sensitivity setting	7
7.3	Scanning	7
7.4	Evaluation of discontinuities	7
7.5	Determination of the attenuation coefficient	7
7.5.1	General	7
7.5.2	Comparative technique using a reference block	8
7.5.3	Technique using the test object only	9
<b>Bibliography</b>		<b>12</b>