PRODUCT DATASHEET / SELECTION GUIDE

ISO 18250-3 Reference Connectors

For Enteral Reservoir Connector Testing - Figure C.1 to C.6 Reference Interfaces

KINGPO supplies ISO 18250-3 reference connectors for enteral reservoir connector testing. This datasheet summarizes the Figure C.1 to Figure C.6 reference connector scope, selection logic, test purpose mapping, handling precautions and quotation information for laboratory configuration.

The connectors are precision reference interfaces used to create defined mating conditions for leakage, stress cracking, axial separation, unscrewing-related verification and resistance to overriding tests. The correct connector should be selected according to the required figure number, sample connector type and laboratory test procedure.

Note: This datasheet is intended for product selection and quotation support. It is not a replacement for the official ISO standard or the customer's validated test procedure.

Key Information

Applicable Standard	ISO 18250-3:2018 Annex C reference connector requirements
Product Scope	Figure C.1 to Figure C.6 reference connectors for enteral reservoir connector testing
Test Objects	Cross connectors, cross port reservoir connectors, female enteral reservoir connectors and male enteral reservoir connectors
Main Test Purpose	Reference interface support for leakage, stress cracking, axial separation, unscrewing and resistance to overriding
Typical Users	Medical device manufacturers, third-party laboratories, certification bodies, R&D; and QC departments
Configuration	Individual Figure connector or complete C.1-C.6 connector set according to test item and sample interface

ISO 18250-3 Reference Connector Selection Matrix

Use this table to identify which reference connector is related to each test sample and test purpose. The final configuration should always be confirmed according to the applicable clause and customer test procedure.

Figure	Reference Connector Type	Used to Test	Main Test Purpose	Selection Note
C.1	Cross port reference reservoir connector	Cross connector, E1R	Positive pressure liquid leakage; subatmospheric pressure air leakage; stress cracking; disconnection and separation from unscrewing	Select for cross connector tests involving leakage, stress cracking or unscrewing-related verification.
C.2	Cross port reservoir reference connector	Cross connector, E1R	Separation from axial load; resistance to overriding	Select when the cross connector test focuses on axial separation or overriding resistance.
C.3	Cross connector	Cross port reservoir connector, E1R	Positive pressure liquid leakage; subatmospheric pressure air leakage; stress cracking; disconnection and separation from unscrewing	Select when a cross port reservoir connector requires leakage, stress cracking or unscrewing-related evaluation.
C.4	Cross connector	Cross port reservoir connector, E1R	Separation from axial load; resistance to overriding	Select for cross port reservoir connector tests focused on axial load or overriding resistance.
C.5	Male reference connector	Female enteral reservoir connector, E2R	Positive pressure liquid leakage; subatmospheric pressure air leakage; stress cracking; axial separation; resistance to overriding	Select when the sample is a female enteral reservoir connector and a male reference interface is required.
C.6	Female reference connector	Male enteral reservoir connector, E2R	Positive pressure liquid leakage; subatmospheric pressure air leakage; stress cracking; axial separation; resistance to overriding	Select when the sample is a male enteral reservoir connector and a female reference interface is required.

Testing Principles for ISO 18250-3 Reference Connectors

Connector verification depends on the correct reference connector, controlled assembly and the proper test method. The reference connector provides a repeatable mating interface so the test sample can be evaluated under defined laboratory conditions.

Test Setup Principles

- Positive pressure liquid leakage and subatmospheric pressure air leakage use the reference connector as the mating interface.
- Stress cracking evaluation may require the connector to maintain the assembled condition during exposure.
- Axial separation tests require controlled alignment and loading direction.
- Unscrewing and overriding verification require controlled assembly, rotation direction and fixture stability.

Handling Precautions

- Do not select by appearance only; confirm the ISO 18250-3 figure number.
- Confirm male/female direction according to the sample side, not only the connector name.
- Keep threads, sealing surfaces and contact areas clean and undamaged.
- Do not substitute Figure C.1-C.6 connectors without checking the required test item.

ISO 18250-3 Test Purpose Mapping

Test Purpose	Related Figure Connectors	What It Helps Verify
Positive pressure liquid leakage	C.1, C.3, C.5, C.6	Connector assembly liquid tightness under the required positive pressure condition.
Subatmospheric pressure air leakage	C.1, C.3, C.5, C.6	Air tightness under subatmospheric pressure test conditions.
Stress cracking	C.1, C.3, C.5, C.6	Whether the connector material or assembled interface shows cracking risk.
Disconnection / separation from unscrewing	C.1, C.3	Whether the connector disconnects or separates under unscrewing-related conditions.
Separation from axial load	C.2, C.4, C.5, C.6	Whether the connector assembly resists separation under axial loading.
Resistance to overriding	C.2, C.4, C.5, C.6	Whether the interface prevents overriding or incorrect engagement.

Material, Surface and Dimensional Notes

ISO 18250-3 reference connectors are precision reference parts. Their function depends on material stability, critical surface condition and dimensional control. Reference connectors should be manufactured from corrosion-resistant rigid material, and critical surfaces require controlled roughness according to Annex C requirements. The figure drawings are dimensioned in millimetres unless otherwise indicated.

Some dimensions may relate to gasket or mating conditions. When fixtures, adapters or sample holders are used, their influence on the actual connection condition should be reviewed.

How to Choose and Order

Correct selection starts from the test sample and the required test purpose. A male or female reference connector should be selected according to the mating side required by the test method, not only by the product name.

Information to Confirm	Why It Matters
Required ISO 18250-3 Figure number	C.1-C.6 have different connector structures and test purposes.
Test sample connector type	The reference connector must match the sample side, such as cross connector, cross port reservoir connector, female E2R or male E2R.
Test purpose	Leakage, stress cracking, axial separation, unscrewing and overriding may require different reference connectors or fixtures.
Supporting equipment	Leakage-related tests may require pressure or subatmospheric pressure test equipment, adapters, tubing and fixtures.
Documentation requirement	Datasheet, dimensional information, operation manual or calibration-related documents should be confirmed before order.
Single connector or complete set	Customers may order one required Figure connector or a complete Figure C.1-C.6 reference connector set.

Connector Drawing Document

Scan or open the link to download the ISO 18250-3 Reference Connectors Annex C Drawings document for Figure C.1 to C.6 configurations.

URL:
www.dgkingpo.com/wp-content/uploads/2026/06/ISO-18250-3-Reference-Connectors-Annex-C-Drawings.pdf

Optional Supporting Equipment

- ISO 18250-1 Subatmospheric Pressure Air Leakage Tester
- Leakage test adapters, tubing and sample holders
- Medical connector leakage test equipment
- Customized medical connector test fixtures

Related Medical Connector Equipment

- ISO 80369 Luer gauges and small-bore connector gauges
- ISO 5356-1 medical gauges for anaesthetic and respiratory equipment
- Medical device test equipment for IEC, ISO, GB and YY/T standards
- Project-specific fixture and documentation support

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