Market evolution: Process instruments (CN 9026) — 2015–2025

Introduction

This report examines the external trade of the European Union in instruments and apparatus for measuring or checking flow, level, pressure and other variables of liquids and gases (CN 9026) over the 2015–2025 period. The analysis covers total trade values, quantities and unit values, the shifting geography of demand and supply, product-segment dynamics, volatility and structural developments in EU production and specialisation. All figures are drawn from the EU trade dashboard and the associated modules cited throughout the text.

Value expansion outpaces volume: a decade of price-led trade growth

The EU's trade in CN 9026 recorded robust value growth between 2015 and 2025, yet physical quantities declined. Rising unit prices across all flows drove the expansion, pointing to a progressive shift towards higher-specification instruments and rising production costs.

Export and import values grew steadily, yielding a widening surplus

Total extra-EU exports rose from €3.96 bn in 2015 to €5.59 bn in 2025 (+41.1 %), while imports increased more moderately from €2.60 bn to €3.50 bn (+34.5 %). As a result the trade surplus jumped from €1.36 bn to €2.09 bn (+53.7 %), reinforcing the EU's position as a net exporter. EU trade overview

Indicator	2015	2025	Change
Exports (€ bn)	3.96	5.59	+41.1 %
Imports (€ bn)	2.60	3.50	+34.5 %
Balance (€ bn)	1.36	2.09	+53.7 %

Shrinking quantities reveal a "premiumisation" of trade

Physical export tonnage fell from 36.9 kt to 35.7 kt (–3.2 %), while import tonnage fell more sharply from 37.0 kt to 33.3 kt (–10.1 %). Consequently, the average unit price of exports climbed from €107.4 /kg to €156.5 /kg (+45.7 %) and that of imports from €70.4 /kg to

€105.2 /kg (+49.6 %). The narrowing gap between export and import unit values suggests EU-sourced instruments are capable of commanding a sustained premium. EU trade overview

Flow	2015 quantity (kt)	2025 quantity (kt)	2015 unit price (€/kg)	2025 unit price (€/kg)
Exports	36.9	35.7	107.4	156.5
Imports	37.0	33.3	70.4	105.2

Geopolitical reorientation and partner-specific volatility

The decade witnessed profound changes in the geography of EU process-instrument trade, marked by the meteoric rise of China as a supplier and customer, the shock of Russia's exit as an export market, and large price swings in several smaller destinations.

China overtakes traditional heavyweights on both sides of trade

On the import side, China's share soared: EU imports from China jumped from €297 m to €717 m (+141.7 %), making it the second-largest supplier behind the United States, which grew only modestly to €789 m (+10.9 %). Switzerland remained a major, stable source (€471 m → €624 m). On the export side, the United States held the top spot (€680 m → €1 064 m, +56.4 %), closely followed by China (€599 m → €908 m, +51.7 %). India stands out as the fastest-growing major export destination (+115.1 %).

Partner	Imports 2015 (€ m)	Imports 2025 (€ m)	Exports 2015 (€ m)	Exports 2025 (€ m)
United States	711.2	788.8	680.4	1 064.0
China	296.7	717.3	598.8	908.1
Switzerland	470.5	623.8	156.3	244.1
United Kingdom	319.2	354.2	378.5	467.2
India	21.0	49.5	110.0	236.5

Top trade partners

Sanctions on Russia triggered a near-total collapse of exports

The most drastic supply shock affected exports to the Russian Federation: after a stable baseline of around 1 470 t per year, volumes plummeted from 1 617 t in 2021 to just 0.4 t in 2025, a shift of –99.8 %. The residual trade occurred at drastically elevated unit prices (€836 /kg), suggesting a handful of exempted or redirected shipments. Supply shock events

Price shocks and high volatility characterise smaller markets

Several export destinations experienced sharp price shocks. Unit values to Serbia jumped by 179 % in 2021, to Mexico by 38 % in 2022 and to Malaysia by 218 % in 2023, reflecting episodic demand for high-end instruments or supply-chain disruptions. On the import side, Thailand (CV = 1.97) and Norway (CV = 1.38) exhibited extremely volatile quantity flows, while Taiwan (CV = 0.10) and Switzerland (CV = 0.09) remained the most stable sources. Volatility profiles

Structural deepening: production scale-up, specialisation and product-segment shifts

Behind the trade figures, EU domestic production expanded massively, altering the relationship between production and trade. Within the EU, a clear core of specialised manufacturing states emerged, while the product mix evolved.

Production surged while trade intensity fell, reinforcing autonomy

EU production of CN 9026 instruments jumped from €5.2 bn in 2015 (estimated) to €10.8 bn in 2024 (+108.7 %), with volume rising from 193.8 m to 300.5 m units. Export propensity (exports relative to production value) dropped from 62 % to 43 % over the same period, meaning a larger share of output is now absorbed within the Single Market. The net-import reliance ratio (the external balance as a share of apparent consumption) moved from –17.3 % to –20.1 %, confirming a strengthened net-exporter status. Production volumes – Net import reliance

Germany, Romania and Bulgaria anchor the EU's revealed comparative advantage

In 2025 the most specialised EU exporters were Bulgaria (RSCA = 0.43), Romania (0.38) and Germany (0.36), with Germany alone accounting for 45 % of all extra-EU exports of CN 9026. France (0.15) and Denmark (0.17) also show a clear specialisation. Conversely, Ireland (–0.81), Greece (–0.80) and Cyprus (–0.74) have negligible export footprints in this product class. Specialisation map – EU Member State performance

Pressure instruments dominate, while flow-level devices undergo a premium shift

Among the four sub-headings, pressure instruments (902620) are by far the largest segment in both exports (€2.2 bn in 2025) and imports (€1.7 bn), with a steady unit price of €197 /kg (exports) and €125 /kg (imports). Instruments for flow/level measurement

(902610) recorded the most dramatic transformation: export unit values rose from €92/kg to €125/kg and import unit values from €32/kg to €92/kg, while import quantities halved, indicating a move towards more sophisticated, higher-value devices. Parts (902690) and “other” instruments (902680) also saw strong price escalation, especially in exports, where parts reached €140/kg and other instruments €174/kg. Product segment breakdown

Segment	Export value 2025 (€ bn)	Export unit price (€/kg)	Import value 2025 (€ bn)	Import unit price (€/kg)
902620 – Pressure	2.21	197.0	1.68	124.6
902610 – Flow/ Level	1.73	124.9	0.63	91.8
902690 – Parts	0.85	140.3	0.56	68.3
902680 – Other	0.80	174.0	0.63	132.8

Conclusion

The 2015–2025 period transformed EU trade in process instruments (CN 9026) from a fairly balanced volume game into a high-value, surplus-generating activity driven by quality and technology. While quantities stagnated or fell, unit prices surged across all categories, reflecting both product upgrading and cost inflation. China emerged as a pivotal partner on both the import and the export side, while sanctions removed the Russian market almost entirely. At the same time, EU producers more than doubled output, reduced export propensity and increased self-sufficiency, with Germany and a cluster of Central-Eastern European states forming the core of competitive advantage. Looking ahead, the main challenges will be managing the growing reliance on Chinese supply and capitalising on the technology-driven premiumisation that has so far supported the Union’s trade surplus.

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If you need advice on European trade policy, or representation for your interests in Brussels, feel free to contact me at support@tradedashboard.eu. You can find my CV at this address.