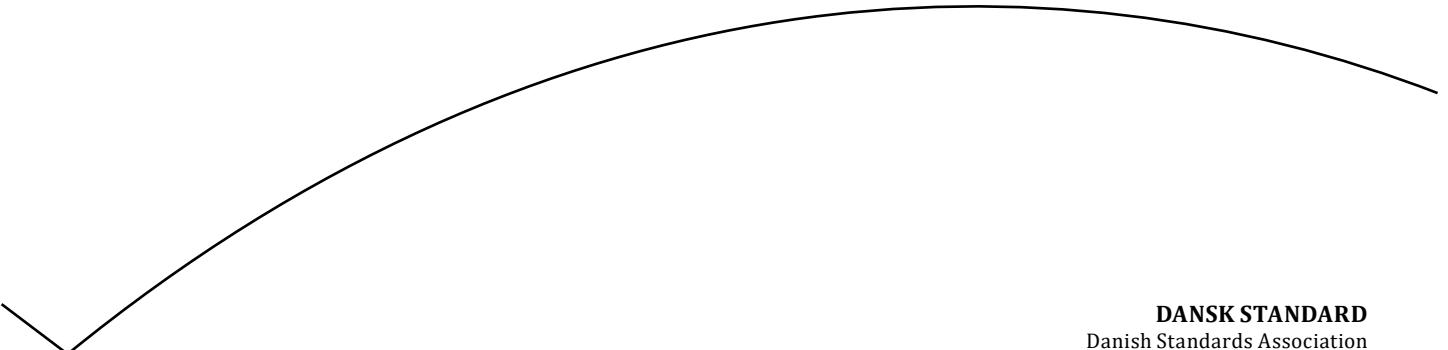




This is a preview of "DS/EN 15714-3:2022". Click here to purchase the full version from the ANSI store.

Industriventiler – Aktuatorer – Del 3: Pneumatiske drejeaktuatorer – Grundlæggende krav

Industrial valves – Actuators – Part 3: Pneumatic part-turn
actuators for industrial valves – Basic requirements



DANSK STANDARD
Danish Standards Association

Göteborg Plads 1
DK-2150 Nordhavn
Tel: +45 39 96 61 01
dansk.standard@ds.dk
www.ds.dk

This is a preview of "DS/EN 15714-3:2022". Click here to purchase the full version from the ANSI store.

DS projekt: M353104

ICS: 23.060.20

Første del af denne publikations betegnelse er:

DS/EN, hvilket betyder, at det er en europæisk standard, der har status som dansk standard.

Denne publikations overensstemmelse er:

IDT med: EN 15714-3:2022

DS-publikationen er på engelsk.

Denne publikation erstatter: [DS/EN 15714-3:2009](#)

DS-publikationstyper

Dansk Standard udgiver forskellige publikationstyper.

Typen på denne publikation fremgår af forsiden.

Der kan være tale om:

Dansk standard

- standard, der er udarbejdet på nationalt niveau, eller som er baseret på et andet lands nationale standard, eller
- standard, der er udarbejdet på internationalt og/eller europæisk niveau, og som har fået status som dansk standard

DS-information

- publikation, der er udarbejdet på nationalt niveau, og som ikke har opnået status som standard, eller
- publikation, der er udarbejdet på internationalt og/eller europæisk niveau, og som ikke har fået status som standard, fx en teknisk rapport, eller
- europæisk præstandard

DS-håndbog

- samling af standarder, eventuelt suppleret med informativt materiale

DS-hæfte

- publikation med informativt materiale

Til disse publikationstyper kan endvidere udgives

- tillæg og rettelsesblade

DS-publikationsform

Publikationstyperne udgives i forskellig form som henholdsvis

- fuldtekstpublikation (publikationen er trykt i sin helhed)
- godkendelsesblad (publikationen leveres i kopi med et trykt DS-omslag)
- elektronisk (publikationen leveres på et elektronisk medie)

DS-betegnelse

Alle DS-publikationers betegnelse begynder med DS efterfulgt af et eller flere præfikser og et nr., fx **DS 383, DS/EN 5414** osv. Hvis der efter nr. er angivet et **A** eller **Cor**, betyder det, enten at det er et **tillæg** eller et **rettelsesblad** til hovedstandarden, eller at det er indført i hovedstandarden.

DS-betegnelse angives på forsiden.

Overensstemmelse med anden publikation:

Overensstemmelse kan enten være IDT, EQV, NEQ eller MOD

- **IDT:** Når publikationen er identisk med en given publikation.
- **EQV:** Når publikationen teknisk er i overensstemmelse med en given publikation, men præsentationen er ændret.
- **NEQ:** Når publikationen teknisk eller præsentationsmæssigt ikke er i overensstemmelse med en given standard, men udarbejdet på baggrund af denne.
- **MOD:** Når publikationen er modifieret i forhold til en given publikation.

This is a preview of "DS/EN 15714-3:2022". Click here to purchase the full version from the ANSI store.

EUROPÄISCHE NORM

October 2022

ICS 23.060.20

Supersedes EN 15714-3:2009

English Version

Industrial valves - Actuators - Part 3: Pneumatic part-turn actuators for industrial valves - Basic requirements

Robinetterie industrielle - Actionneurs - Partie 3 :
Actionneurs pneumatiques à fraction de tour pour
robinetterie industrielle - Prescriptions de base

Industriearmaturen - Antriebe - Teil
3: Pneumatische Schwenkantriebe für
Industriearmaturen - Grundanforderungen

This European Standard was approved by CEN on 19 September 2022.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

This is a preview of "DS/EN 15714-3:2022". Click here to purchase the full version from the ANSI store.

Contents

	Page
European foreword	4
1 Scope.....	5
2 Normative references	5
3 Terms and definitions.....	5
4 Classification/Designation.....	7
4.1 Duty classification	7
4.1.1 General.....	7
4.1.2 On-off duty	7
4.1.3 Modulating duty	7
4.2 Action.....	7
4.2.1 Double Acting (DA).....	7
4.2.2 Single Acting (SA).....	8
5 Motive energy	8
5.1 Operating medium	8
5.2 Quality	8
5.3 Pressure	8
6 Actuator performance data.....	8
6.1 Minimum moving pressure	8
6.2 Operating time	8
6.3 Displacement volume	9
7 Basic design requirements.....	9
7.1 Safety requirements	9
7.2 Actuator attachment.....	9
7.3 Angular stroke.....	9
7.4 Endurance of part-turn actuators.....	9
7.5 Leakage	10
7.6 Environmental conditions	10
7.6.1 Ambient temperature.....	10
7.6.2 Enclosure protection	11
7.6.3 Corrosion protection	11
7.7 Pressure connections	11
7.7.1 General.....	11
7.7.2 Remotely mounted pilot valves.....	12
7.7.3 Direct mounted pilot valves.....	13
7.8 Pressure connections for single acting actuators	14
7.9 Fail safe direction for single acting actuators.....	14
7.10 Structural safety factors.....	14
7.11 Position indication	15
8 Optional equipment	15
8.1 Ancillaries	15
8.2 Manual operation.....	17
8.3 Mechanical end stop adjustment	18
9 Conformity assessment	18
9.1 General	18
9.2 Type tests	18
9.3 Control of production process	19
10 Marking.....	20
10.1 Basic requirements on marking	20
10.2 Optional information.....	20
11 Documentation.....	20

This is a preview of "DS/EN 15714-3:2022". Click here to purchase the full version from the ANSI store.

12 Part-turn actuator selection guidelines.....	21
Annex A (normative) Actuator type test procedure.....	22
Annex B (informative) Actuator selection guidelines	24
Bibliography	28

This is a preview of "DS/EN 15714-3:2022". Click here to purchase the full version from the ANSI store.

European foreword

This document ([EN 15714-3:2022](#)) has been prepared by Technical Committee CEN/TC 69 "Industrial valves", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2023, and conflicting national standards shall be withdrawn at the latest by April 2023.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes [EN 15714-3:2009](#).

In comparison with the previous edition, the following technical modifications have been made:

- addition of new terms and definitions;
- improvement of the classification and the designation with on-off and modulating duty classification;
- addition of a new [Clause 5](#) on motive energy;
- enhancement of the basic design requirements;
- modification of the conformity assessment with type test indications and control of production process.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

This is a preview of "DS/EN 15714-3:2022". Click here to purchase the full version from the ANSI store.

Industrial valves - Actuators -

Part 3: **Pneumatic part-turn actuators for industrial valves – Basic requirements**

1 Scope

This document specifies basic requirements for pneumatic part-turn valve actuators, both double acting and single acting, used for on-off and modulating control duties.

It includes guidelines, recommendations and methods for enclosure and corrosion protection, control and testing.

It does not apply to pneumatic actuators which are integral parts of control valves and to pneumatic actuators designed for permanent immersion in fresh or sea water.

Other requirements, or conditions of use, different from those indicated in this document, are expected to be subject to negotiations, between the purchaser and the manufacturer/supplier, prior to order.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

[EN ISO 5211](#), *Industrial valves – Part-turn actuator attachments (ISO 5211)*

[EN 12570](#), *Industrial valves – Method for sizing the operating element*

[EN 15714-1](#), *Industrial valves – Actuators – Part 1: Terminology and definitions*

[EN 60529](#), *Degrees of protection provided by enclosures (IP Code)*

[ISO 5599-2](#), *Pneumatic fluid power — Five-port directional control valves — Part 2: Mounting interface surfaces with optional electrical connector*

[ISO 8573-1:2010](#), *Compressed air — Part 1: Contaminants and purity classes*