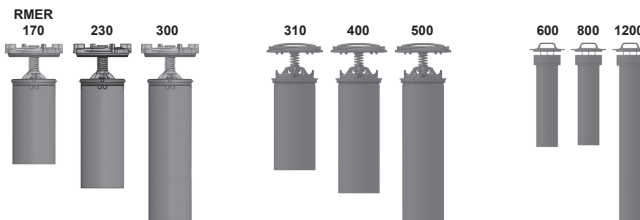




Return Line Filter RMER

Element flow direction from in to out
In-tank versions:
up to 1,100 l/min, up to 10 bar



1. TECHNICAL SPECIFICATIONS

1.1 FILTER HOUSING

Construction

The filter housings are designed in accordance with international regulations. They consist of a housing tube, filter cover plate and an element location spigot.

The element is top-removable.

Standard equipment:

- bypass valve
- magnetic core built into cover plate
- element location spigot

1.2 FILTER ELEMENTS

HYDAC filter elements are validated and their quality is constantly monitored according to the following standards:

- ISO 2941, ISO 2942, ISO 2943, ISO 3724, ISO 3968, ISO 11170, ISO 16889

Contamination retention capacities in g Glass fibre (ULP)

| RMER * | 10 µm | 25 µm |
|--------|-------|-------|
| 170 | 22.3 | 27.2 |
| 230 | 31.3 | 38.1 |
| 300 | 57.4 | 70.0 |
| 310 | 48.8 | 59.5 |
| 400 | 65.2 | 79.5 |
| 500 | 78.9 | 96.2 |
| 600 | 153.0 | 170.0 |
| 800 | 207.0 | 230.0 |
| 1200 | 306.0 | 340.0 |

Glass fibre with pre-filter (UHC)

| RMER * | 10 µm | 20 µm |
|--------|-------|-------|
| 170 | 36.4 | 44.4 |
| 230 | 47.6 | 58.1 |
| 300 | 77.7 | 94.8 |
| 310 | 67.8 | 83.3 |
| 400 | 91.2 | 111.3 |
| 500 | 117.0 | 142.7 |
| 600 | 408.0 | 459.0 |
| 800 | 552.0 | 621.0 |
| 1200 | 816.0 | 918.0 |

* 5 µm on request

Available pressure stability values:

| | |
|------------------------------------|-------|
| Glass fibre (ULP): | 6 bar |
| Glass fibre with pre-filter (UHC): | 6 bar |
| Wire mesh (WR): | 6 bar |

1.3 FILTER SPECIFICATIONS

| | |
|--------------------------|---|
| Nominal pressure | up to 10 bar |
| Temperature range | -30 °C to +120 °C |
| Material of housing tube | Steel |
| Material of cover plate | Size 170, 230, 300: EN-GJL-250 Size 310, 400, 500: EN-AC-46100 Size 600, 800, 1200: EN-GJS-400-15 |
| Bypass cracking pressure | Size 170, 230, 300: 2.5 bar Size 310, 400, 500: 2.5 bar Size 600, 800, 1200: 3 bar (others on request) |

1.4 SEALS

NBR (=Perbunan)

1.5 INSTALLATION

In-tank filter

1.6 SPECIAL MODELS AND ACCESSORIES

- without magnetic core
- with protective tube
- different inlet void height
- additional protective tube for RMER 170 to 500

Others on request

1.7 SPARE PARTS

See Original Spare Parts List

1.8 CERTIFICATES AND APPROVALS

Test certificate 2.2
Other approvals on request

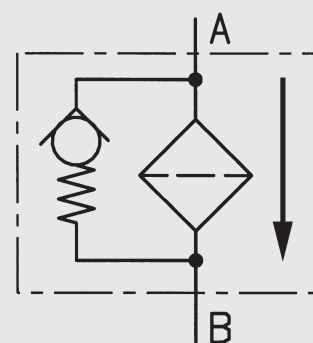
1.9 COMPATIBILITY WITH HYDRAULIC FLUIDS ISO 2943

- Hydraulic oils H to HLPD DIN 51524
- Lubrication oils DIN 51517, API, ACEA, DIN 51515, ISO 6743
- Compressor oils DIN 51506
- Biodegradable operating fluids VDMA 24568 HETG, HEES, HEPG
- Fire-resistant fluids HFA, HFB, HFC and HFD
- Operating fluids with high water content (>50% water content) on request

1.10 IMPORTANT INFORMATION

- Filter housings must be earthed.
- When using electrical clogging indicators, the electrical power supply to the system must be switched off before removing the clogging indicator connector.

Symbol for hydraulic systems



2. MODEL CODE (also order example)

RMER ULP 800 SET 10 W 1 . X /-V

2.1 IN-TANK MOUNTED FILTER VERSION

Filter type

RMER

Filter material of element

ULP Glass fibre
UHC Glass fibre with pre-filter
WR Wire mesh

Size of filter or element

RMER: 170, 230, 300, 310, 400, 500, 600, 800, 1200

In-tank version

SET housing tube and filter cover plate only

Filtration rating in μm

ULP : 10, 25 *
UHC : 10, 20 *
WR : 25, 40, 60

Type of clogging indicator

W without port, no clogging indicator

Type code

1

Modification number

X the latest version is always supplied

Supplementary details

no details = standard bypass cracking pressure
B. special bypass cracking pressure (e.g. B2 = 2 bar)
OM without magnetic core
SSR with protective tube
V FPM seals

2.2 REPLACEMENT ELEMENT

0800 R 010 ULP /-V

Size

0170, 0230, 0300, 0310, 0400, 0500, 0600, 0800, 1200

Type

R Return line filter element – flow direction from in to out

Filtration rating in μm

ULP : 010, 025 *
UHC : 010, 020 *
WR : 025, 040, 060

Filter material

ULP, UHC, WR

Supplementary details

V (for descriptions, see point 2.1)

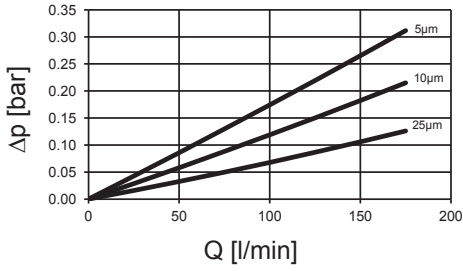
* 5 μm on request

3. FILTER CALCULATION / SIZING

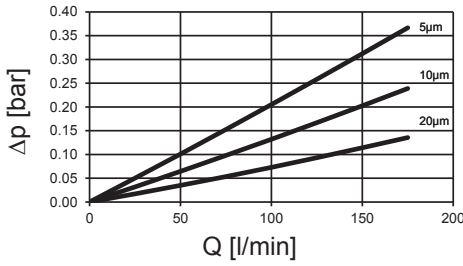
3.1 GRAPHS FOR COMPLETE FILTER

The total pressure drop graphs apply to mineral oil with a density of 0.86 kg/dm³ and a kinematic viscosity of 30 mm²/s.

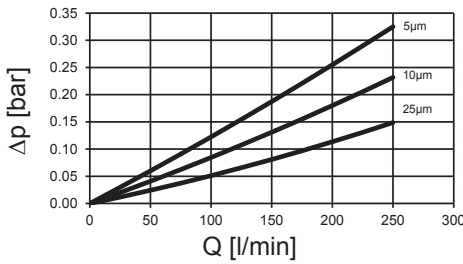
RMER 170: ULP



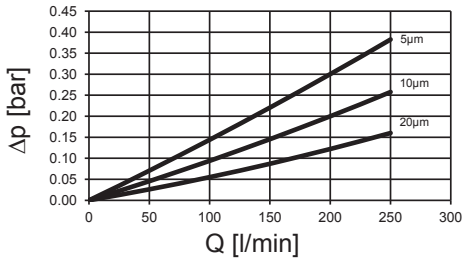
RMER 170: UHC



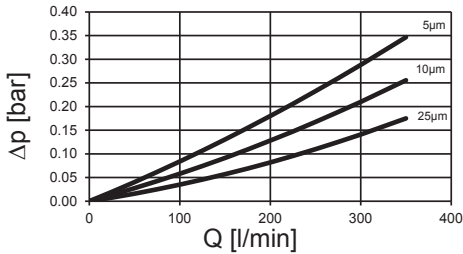
RMER 230: ULP



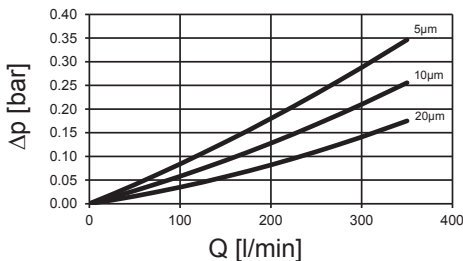
RMER 230: UHC



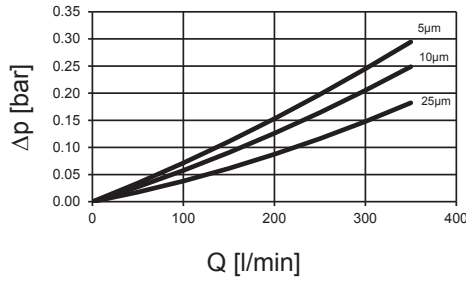
RMER 300: ULP



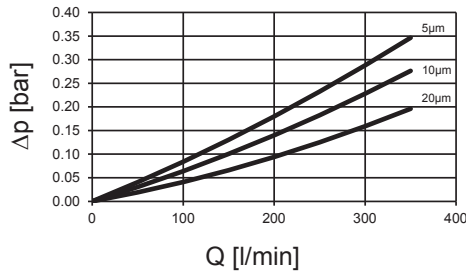
RMER 300: UHC



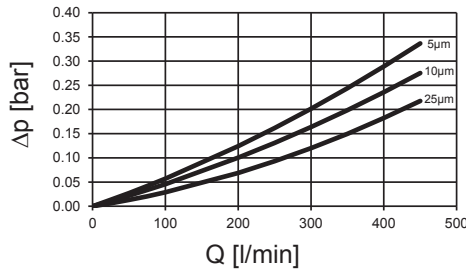
RMER 310: ULP



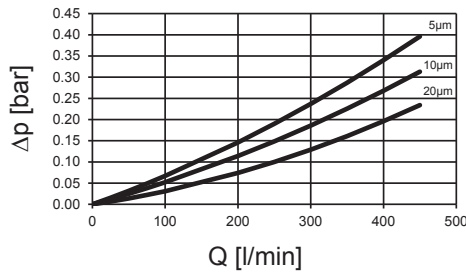
RMER 310: UHC



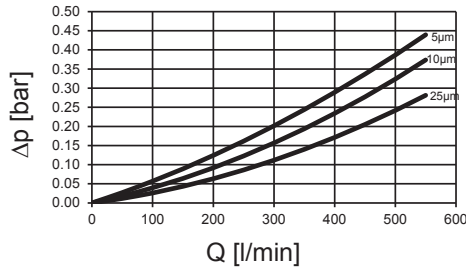
RMER 400: ULP



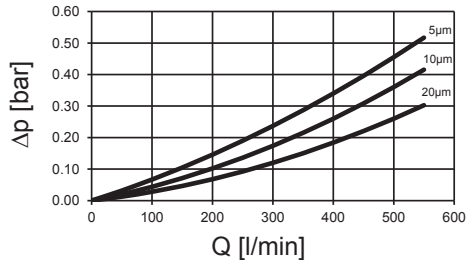
RMER 400: UHC



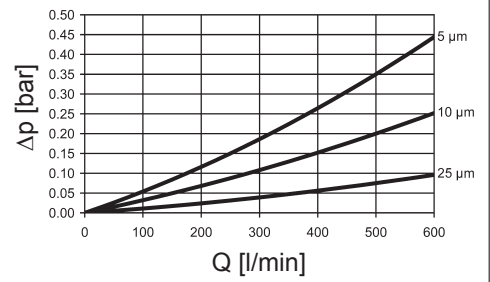
RMER 500: ULP



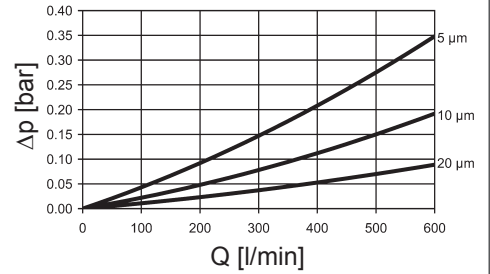
RMER 500: UHC



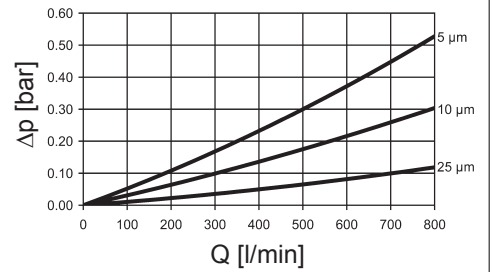
RMER 600: ULP



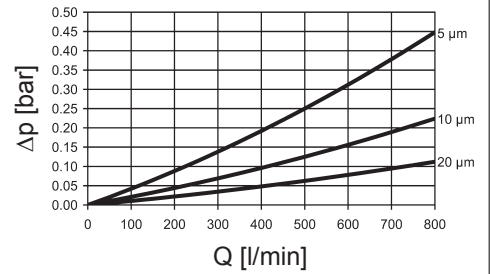
RMER 600: UHC



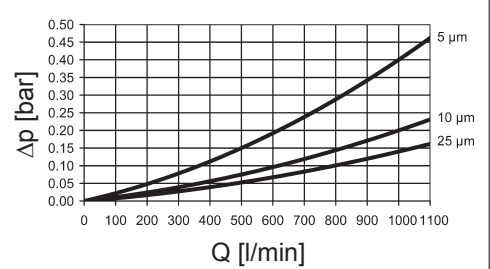
RMER 800: ULP



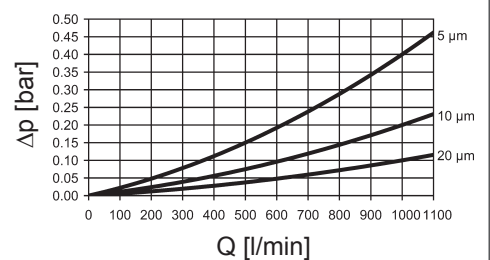
RMER 800: UHC



RMER 1200: ULP

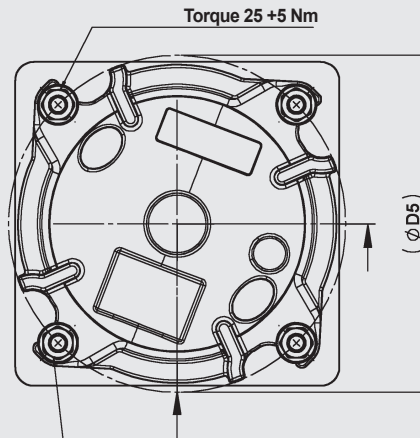
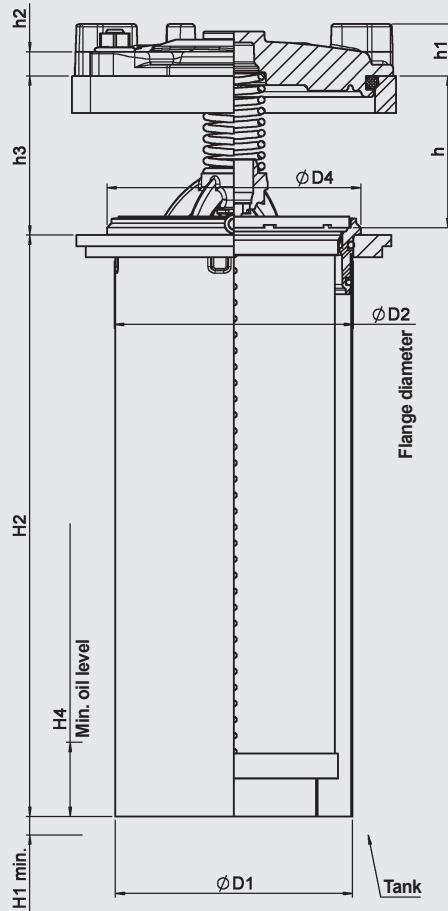


RMER 1200: UHC



4. DIMENSIONS

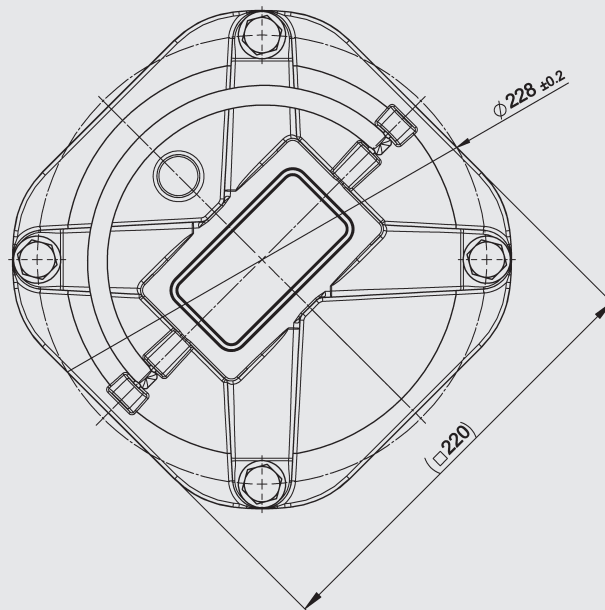
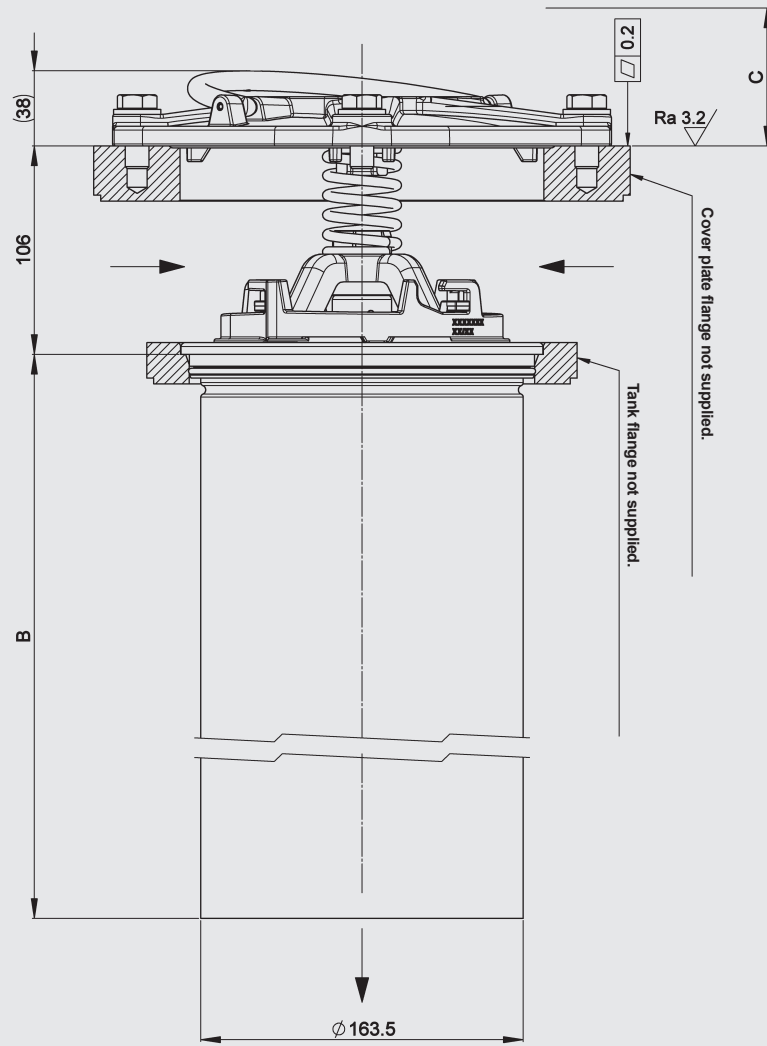
RMER 170, 230, 300



Supports e.g.:
Hexagon nut with collar DIN EN 1661 - M10
Studs DIN 938 - M10 x 25 - 8.8

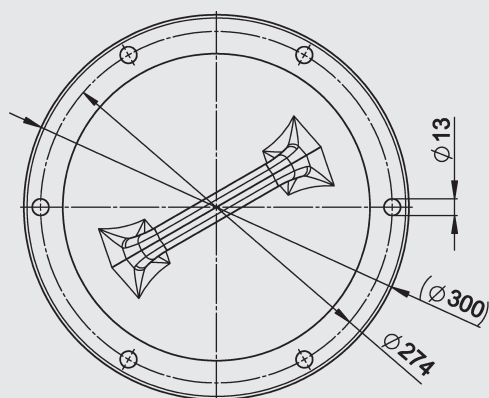
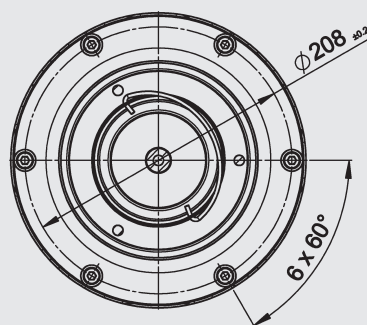
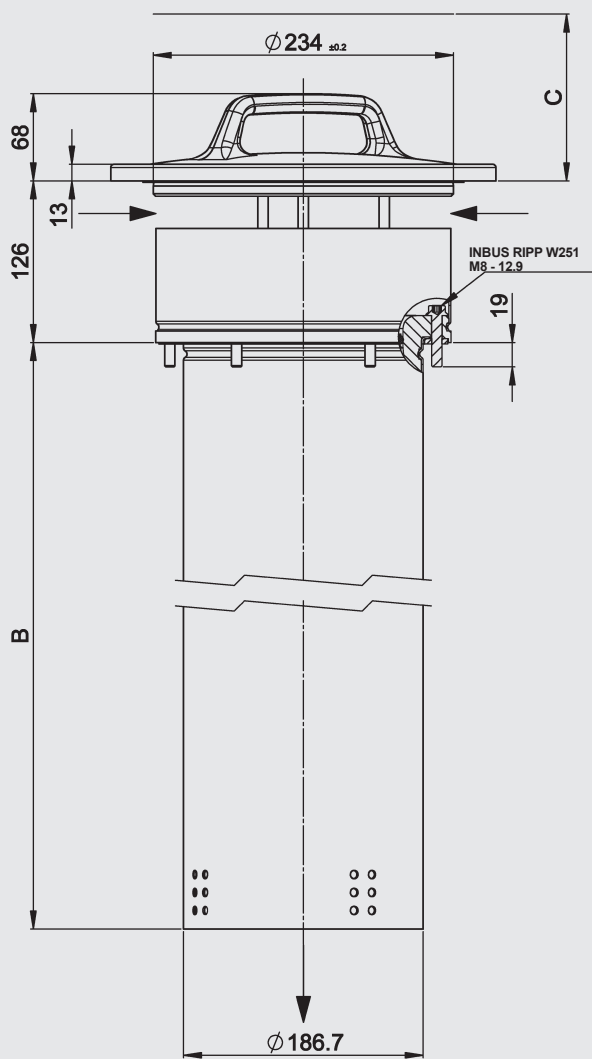
| RMER | Design | H1 | H2 | H3 | H4 | h | h1 | h2 | h3 | ØD1 | Ø D2 | Ø D3 | ØD4 |
|------|--------|-----|-----|----|-----|----|----|----|----|-----|------|------|-----|
| 170 | X | 10 | 232 | - | 155 | 82 | 28 | 13 | 77 | - | 113 | 182 | - |
| | B | | 243 | - | 40 | | | | 86 | 128 | 129 | | 137 |
| | L | 102 | | 10 | | | | | | | | | |
| | R | 126 | 10 | | | | | | | | | | |
| 230 | X | 10 | 303 | - | 203 | 82 | 28 | 13 | 77 | - | 113 | 182 | - |
| | B | | 314 | - | 40 | | | | 86 | 128 | 129 | | 137 |
| | L | 102 | | 10 | | | | | | | | | |
| | R | 163 | 10 | | | | | | | | | | |
| 300 | X | 10 | 399 | - | 267 | 82 | 28 | 13 | 77 | - | 113 | 182 | - |
| | B | | 410 | - | 40 | | | | 86 | 128 | 129 | | 137 |
| | L | 102 | | 10 | | | | | | | | | |
| | R | 200 | 10 | | | | | | | | | | |

RMER 310, 400, 500



| RMER | B | C min. | Weight incl. element [kg] |
|------|-----|--------|---------------------------|
| 310 | 354 | 460 | 5.3 |
| 400 | 444 | 550 | 6.5 |
| 500 | 554 | 660 | 7.6 |

RMER 600, 800, 1200



| RMER | B | C min. | Weight incl. element [kg] |
|------|------|--------|---------------------------|
| 600 | 694 | 570 | 23.9 |
| 800 | 680 | 685 | 25.2 |
| 1200 | 1324 | 1005 | 32.1 |

NOTE

The information in this brochure relates to the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant technical department. Subject to technical modifications.

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