



## Standard Bourdon tube pressure gauges Type D1



### Benefits

- For pneumatic and heating system applications
- Design as per EN 837-1
- Accuracy class 1.6
- Corrosion-resistant, highly impact-resistant plastic housing
- Many customised versions available

### Application

For gaseous and liquid media which are not highly viscous, do not crystallise and do not attack copper alloys.  
! For measuring gas or vapour, observe the table "Selection Criteria as per EN 837-2"!

### Technical specifications

#### Type

D1

#### Nominal size

40 – 50 – 63 – 80 – 100

#### Accuracy class (EN 837-1/6)

1,6

#### Ranges (EN 837-1/5)

See ordering table

#### Application area

Static load:  $\frac{1}{4}$  x full scale value

Dynamic load:  $\frac{1}{2}$  x full scale value

Short-term: Full scale value

#### Operating temperature range

Medium: Max. 60 °C

Ambient: -20/+60 °C

#### Temperature performance

Indication error when the temperature of the measuring system deviates from the normal temperature of 20 °C:  
at rising temperature approx.  $\pm 0.4 \%$ /10 K  
falling temperature approx.  $\pm 0.4 \%$ /10 K  
of full scale value

#### Degree of protection

IP 32 (EN 60529)

### Standard version

#### Connection

Brass, bottom or centre back

#### Measuring element

Bourdon tube, Copper

alloy

≤ 60 bar: "C" type tube

> 60 bar: Helical tube

#### Movement

Brass

#### Dial

Plastic, white

Scaling black

#### Pointer

Plastic, black

#### Housing

ABS, black, highly impact-resistant and corrosion-resistant

#### Window

Plastic, clipped in

NG 80: With adjustable red reference pointer

NG 100: With adjustable red reference pointer



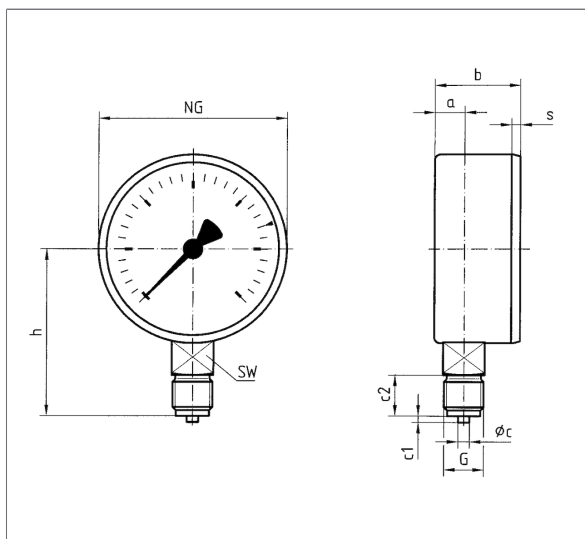
## Options

- Damping screw
- Reference pointer
- Special scales
- Other process connections



## Technical drawings

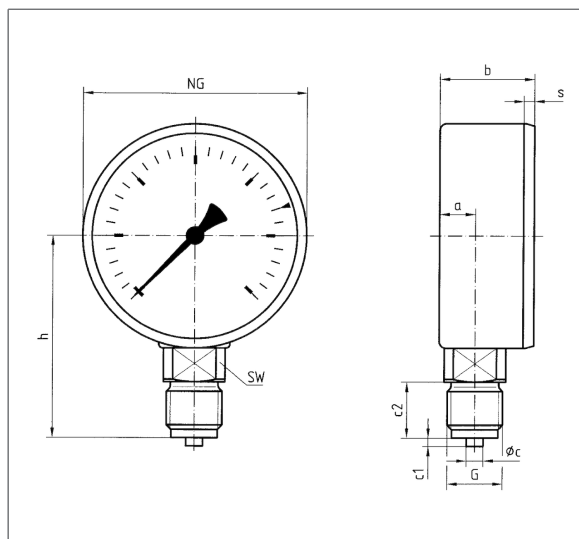
### NG 40/50/63 – bottom connection



Dimensions (mm)

NG	a	b	Øc	c1	c2	G	h	s	SW
40	9,5	25	4	2	10	G½B	36	3	12
50	10,3	26,8	5	2	13	G½B	45	3,8	14
63	9,8	29,7	5	2	13	G½B	51,5	3,7	14

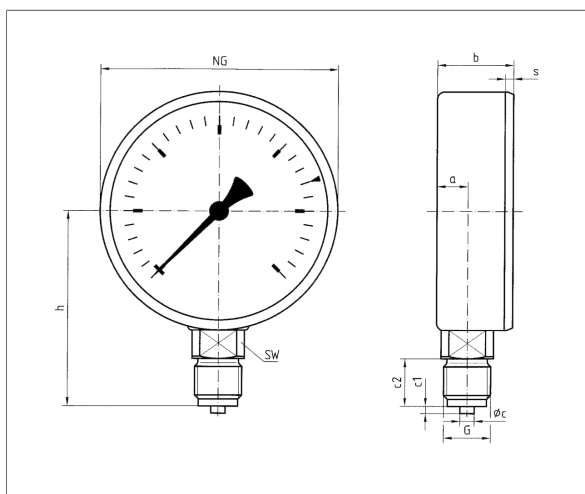
### NG 80 – bottom connection



Dimensions (mm)

NG	a	b	Øc	c1	c2	G	h	s	SW
80	12,8	32,8	6	3	20	G½B	72	2,8	22

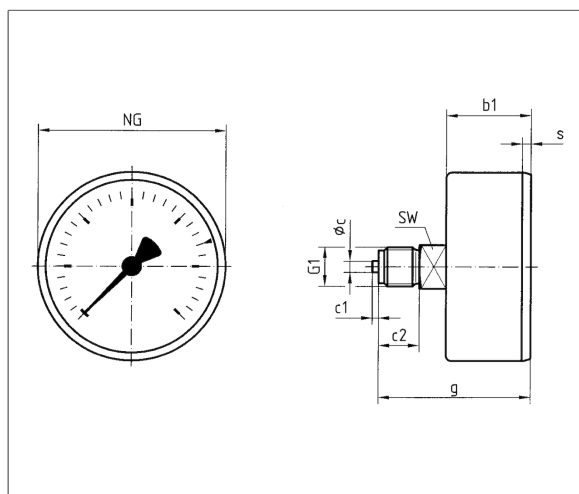
### NG 100 – bottom connection



Dimensions (mm)

NG	a	b	Øc	c1	c2	G	h	s	SW
100	15,5	34,5	6	3	20	G½B	82	3,5	22

### NG 40/50/63 – centre back connection



Dimensions (mm)

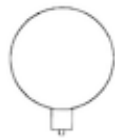
NG	b1	Øc	c1	c2	g	G1	s	SW
40	25	4	2	10	41,5	G½B	3	12
50	27,1	5	2	13	47,1	G½B	3,8	14
63	30,4	5	2	13	50,4	G½B	3,7	14



## Versions

### RF40 D101

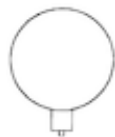
Housing $\varnothing$	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
40 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	-1/0 bar	RF40 D101	<a href="#">85001101</a>
40 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/0.6 bar	RF40 D101	85009101
40 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/1 bar	RF40 D101	<a href="#">85010101</a>
40 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/1.6 bar	RF40 D101	<a href="#">85011101</a>
40 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/2.5 bar	RF40 D101	<a href="#">85012101</a>
40 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/4 bar	RF40 D101	<a href="#">85013101</a>
40 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/6 bar	RF40 D101	<a href="#">85014101</a>
40 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/10 bar	RF40 D101	<a href="#">85015101</a>
40 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/16 bar	RF40 D101	<a href="#">85016101</a>
40 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/25 bar	RF40 D101	<a href="#">85017101</a>
40 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/40 bar	RF40 D101	<a href="#">85018101</a>
40 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/60 bar	RF40 D101	85019101
40 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/100 bar	RF40 D101	85020101
40 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/160 bar	RF40 D101	85021101
40 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/250 bar	RF40 D101	85022101



Blue part no. = in-stock items

### RF50 D101

Housing $\varnothing$	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
50 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	-1/0 bar	RF50 D101	<a href="#">85051101</a>
50 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/0.6 bar	RF50 D101	85059101
50 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/1 bar	RF50 D101	<a href="#">85060101</a>
50 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/1.6 bar	RF50 D101	<a href="#">85061101</a>
50 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/2.5 bar	RF50 D101	<a href="#">85062101</a>
50 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/4 bar	RF50 D101	<a href="#">85063101</a>
50 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/6 bar	RF50 D101	<a href="#">85064101</a>
50 mm	G $\frac{1}{4}$ B	Bottom	ABS, black	1,6	0/10 bar	RF50 D101	<a href="#">85065101</a>



Blue part no. = in-stock items



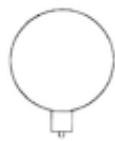
Housing <sup>⊙</sup>	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
50 mm	G¼B	Bottom	ABS, black	1,6	0/16 bar	RF50 D101	<a href="#">85066101</a>
50 mm	G¼B	Bottom	ABS, black	1,6	0/25 bar	RF50 D101	<a href="#">85067101</a>
50 mm	G¼B	Bottom	ABS, black	1,6	0/40 bar	RF50 D101	<a href="#">85068101</a>
50 mm	G¼B	Bottom	ABS, black	1,6	0/60 bar	RF50 D101	<a href="#">85069101</a>
50 mm	G¼B	Bottom	ABS, black	1,6	0/100 bar	RF50 D101	<a href="#">85070101</a>
50 mm	G¼B	Bottom	ABS, black	1,6	0/160 bar	RF50 D101	<a href="#">85071101</a>
50 mm	G¼B	Bottom	ABS, black	1,6	0/250 bar	RF50 D101	85072101
50 mm	G¼B	Bottom	ABS, black	1,6	0/400 bar	RF50 D101	85073101

Blue part no. = in-stock items

### RF63 D101

Housing <sup>⊙</sup>	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
63 mm	G¼B	Bottom	ABS, black	1,6	-1/0 bar	RF63 D101	<a href="#">85101101</a>
63 mm	G¼B	Bottom	ABS, black	1,6	-1/+0.6 bar	RF63 D101	85102101
63 mm	G¼B	Bottom	ABS, black	1,6	-1/+1.5 bar	RF63 D101	<a href="#">85103101</a>
63 mm	G¼B	Bottom	ABS, black	1,6	-1/+3 bar	RF63 D101	<a href="#">85104101</a>
63 mm	G¼B	Bottom	ABS, black	1,6	-1/+5 bar	RF63 D101	<a href="#">85105101</a>
63 mm	G¼B	Bottom	ABS, black	1,6	-1/+9 bar	RF63 D101	85106101
63 mm	G¼B	Bottom	ABS, black	1,6	-1/+15 bar	RF63 D101	<a href="#">85107101</a>
63 mm	G¼B	Bottom	ABS, black	1,6	0/0.6 bar	RF63 D101	<a href="#">85109101</a>
63 mm	G¼B	Bottom	ABS, black	1,6	0/1 bar	RF63 D101	<a href="#">85110101</a>
63 mm	G¼B	Bottom	ABS, black	1,6	0/1.6 bar	RF63 D101	<a href="#">85111101</a>
63 mm	G¼B	Bottom	ABS, black	1,6	0/2.5 bar	RF63 D101	<a href="#">85112101</a>
63 mm	G¼B	Bottom	ABS, black	1,6	0/4 bar	RF63 D101	<a href="#">85113101</a>
63 mm	G¼B	Bottom	ABS, black	1,6	0/6 bar	RF63 D101	<a href="#">85114101</a>
63 mm	G¼B	Bottom	ABS, black	1,6	0/10 bar	RF63 D101	<a href="#">85115101</a>
63 mm	G¼B	Bottom	ABS, black	1,6	0/16 bar	RF63 D101	<a href="#">85116101</a>
63 mm	G¼B	Bottom	ABS, black	1,6	0/25 bar	RF63 D101	<a href="#">85117101</a>
63 mm	G¼B	Bottom	ABS, black	1,6	0/40 bar	RF63 D101	<a href="#">85118101</a>
63 mm	G¼B	Bottom	ABS, black	1,6	0/60 bar	RF63 D101	<a href="#">85119101</a>

Blue part no. = in-stock items





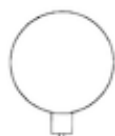
Housing <sup>ø</sup>	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
63 mm	G¼B	Bottom	ABS, black	1,6	0/100 bar	RF63 D101	<a href="#">85120101</a>
63 mm	G¼B	Bottom	ABS, black	1,6	0/160 bar	RF63 D101	85121101
63 mm	G¼B	Bottom	ABS, black	1,6	0/250 bar	RF63 D101	85122101
63 mm	G¼B	Bottom	ABS, black	1,6	0/400 bar	RF63 D101	85123101

Blue part no. = in-stock items

### RF80 D101

Housing <sup>ø</sup>	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
80 mm	G½B	Bottom	ABS, black	1,6	-1/0 bar	RF80 D101	85151101
80 mm	G½B	Bottom	ABS, black	1,6	-1/+0.6 bar	RF80 D101	85152101
80 mm	G½B	Bottom	ABS, black	1,6	-1/+1.5 bar	RF80 D101	85153101
80 mm	G½B	Bottom	ABS, black	1,6	-1/+3 bar	RF80 D101	85154101
80 mm	G½B	Bottom	ABS, black	1,6	-1/+5 bar	RF80 D101	85155101
80 mm	G½B	Bottom	ABS, black	1,6	-1/+9 bar	RF80 D101	85156101
80 mm	G½B	Bottom	ABS, black	1,6	-1/+15 bar	RF80 D101	85157101
80 mm	G½B	Bottom	ABS, black	1,6	0/0.6 bar	RF80 D101	85159101
80 mm	G½B	Bottom	ABS, black	1,6	0/1 bar	RF80 D101	85160101
80 mm	G½B	Bottom	ABS, black	1,6	0/1.6 bar	RF80 D101	85161101
80 mm	G½B	Bottom	ABS, black	1,6	0/2.5 bar	RF80 D101	85162101
80 mm	G½B	Bottom	ABS, black	1,6	0/4 bar	RF80 D101	85163101
80 mm	G½B	Bottom	ABS, black	1,6	0/6 bar	RF80 D101	85164101
80 mm	G½B	Bottom	ABS, black	1,6	0/10 bar	RF80 D101	85165101
80 mm	G½B	Bottom	ABS, black	1,6	0/16 bar	RF80 D101	85166101
80 mm	G½B	Bottom	ABS, black	1,6	0/25 bar	RF80 D101	85167101
80 mm	G½B	Bottom	ABS, black	1,6	0/40 bar	RF80 D101	85168101
80 mm	G½B	Bottom	ABS, black	1,6	0/60 bar	RF80 D101	85169101
80 mm	G½B	Bottom	ABS, black	1,6	0/100 bar	RF80 D101	85170101
80 mm	G½B	Bottom	ABS, black	1,6	0/160 bar	RF80 D101	85171101
80 mm	G½B	Bottom	ABS, black	1,6	0/250 bar	RF80 D101	85172101
80 mm	G½B	Bottom	ABS, black	1,6	0/400 bar	RF80 D101	85173101

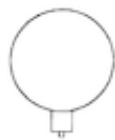
Blue part no. = in-stock items





**RF100 D101**

Housing $\varnothing$	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
100 mm	G½B	Bottom	ABS, black	1,6	-1/0 bar	RF100 D101	85201101
100 mm	G½B	Bottom	ABS, black	1,6	-1/+0.6 bar	RF100 D101	85202101
100 mm	G½B	Bottom	ABS, black	1,6	-1/+1.5 bar	RF100 D101	85203101
100 mm	G½B	Bottom	ABS, black	1,6	-1/+3 bar	RF100 D101	85204101
100 mm	G½B	Bottom	ABS, black	1,6	-1/+5 bar	RF100 D101	85205101
100 mm	G½B	Bottom	ABS, black	1,6	-1/+9 bar	RF100 D101	85206101
100 mm	G½B	Bottom	ABS, black	1,6	-1/+15 bar	RF100 D101	85207101
100 mm	G½B	Bottom	ABS, black	1,6	0/0.6 bar	RF100 D101	85209101
100 mm	G½B	Bottom	ABS, black	1,6	0/1 bar	RF100 D101	85210101
100 mm	G½B	Bottom	ABS, black	1,6	0/1.6 bar	RF100 D101	85211101
100 mm	G½B	Bottom	ABS, black	1,6	0/2.5 bar	RF100 D101	85212101
100 mm	G½B	Bottom	ABS, black	1,6	0/4 bar	RF100 D101	85213101
100 mm	G½B	Bottom	ABS, black	1,6	0/6 bar	RF100 D101	85214101
100 mm	G½B	Bottom	ABS, black	1,6	0/10 bar	RF100 D101	<a href="#">85215101</a>
100 mm	G½B	Bottom	ABS, black	1,6	0/16 bar	RF100 D101	85216101
100 mm	G½B	Bottom	ABS, black	1,6	0/25 bar	RF100 D101	85217101
100 mm	G½B	Bottom	ABS, black	1,6	0/40 bar	RF100 D101	85218101
100 mm	G½B	Bottom	ABS, black	1,6	0/60 bar	RF100 D101	85219101
100 mm	G½B	Bottom	ABS, black	1,6	0/100 bar	RF100 D101	85220101
100 mm	G½B	Bottom	ABS, black	1,6	0/160 bar	RF100 D101	85221101
100 mm	G½B	Bottom	ABS, black	1,6	0/250 bar	RF100 D101	85222101
100 mm	G½B	Bottom	ABS, black	1,6	0/400 bar	RF100 D101	85223101

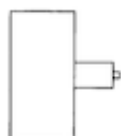


Blue part no. = in-stock items



**RF40 D111**

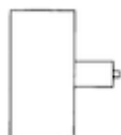
Housing $\varnothing$	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
40 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	-1/0 bar	RF40 D111	85001111
40 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/0.6 bar	RF40 D111	85009111
40 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/1 bar	RF40 D111	85010111
40 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/1.6 bar	RF40 D111	85011111
40 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/2.5 bar	RF40 D111	85012111
40 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/4 bar	RF40 D111	85013111
40 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/6 bar	RF40 D111	85014111
40 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/10 bar	RF40 D111	85015111
40 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/16 bar	RF40 D111	85016111
40 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/25 bar	RF40 D111	85017111
40 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/40 bar	RF40 D111	85018111
40 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/60 bar	RF40 D111	85019111
40 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/100 bar	RF40 D111	85020111
40 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/160 bar	RF40 D111	85021111
40 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/250 bar	RF40 D111	85022111



Blue part no. = in-stock items

**RF50 D111**

Housing $\varnothing$	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
50 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	-1/0 bar	RF50 D111	85051111
50 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/0.6 bar	RF50 D111	85059111
50 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/1 bar	RF50 D111	85060111
50 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/1.6 bar	RF50 D111	85061111
50 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/2.5 bar	RF50 D111	85062111
50 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/4 bar	RF50 D111	85063111
50 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/6 bar	RF50 D111	85064111
50 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/10 bar	RF50 D111	85065111
50 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/16 bar	RF50 D111	85066111
50 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/25 bar	RF50 D111	85067111



Blue part no. = in-stock items





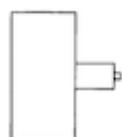
Housing $\varnothing$	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
50 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/40 bar	RF50 D111	<a href="#">85068111</a>
50 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/60 bar	RF50 D111	<a href="#">85069111</a>
50 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/100 bar	RF50 D111	<a href="#">85070111</a>
50 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/160 bar	RF50 D111	<a href="#">85071111</a>
50 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/250 bar	RF50 D111	85072111
50 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/400 bar	RF50 D111	85073111

Blue part no. = in-stock items

### RF63 D111

Housing $\varnothing$	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	-1/0 bar	RF63 D111	<a href="#">85101111</a>
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	-1/+0.6 bar	RF63 D111	85102111
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	-1/+1.5 bar	RF63 D111	<a href="#">85103111</a>
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	-1/+3 bar	RF63 D111	85104111
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	-1/+5 bar	RF63 D111	<a href="#">85105111</a>
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	-1/+9 bar	RF63 D111	85106111
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	-1/+15 bar	RF63 D111	85107111
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/0.6 bar	RF63 D111	<a href="#">85109111</a>
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/1 bar	RF63 D111	<a href="#">85110111</a>
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/1.6 bar	RF63 D111	<a href="#">85111111</a>
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/2.5 bar	RF63 D111	<a href="#">85112111</a>
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/4 bar	RF63 D111	<a href="#">85113111</a>
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/6 bar	RF63 D111	<a href="#">85114111</a>
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/10 bar	RF63 D111	<a href="#">85115111</a>
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/16 bar	RF63 D111	<a href="#">85116111</a>
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/25 bar	RF63 D111	<a href="#">85117111</a>
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/40 bar	RF63 D111	<a href="#">85118111</a>
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/60 bar	RF63 D111	<a href="#">85119111</a>
63 mm	G $\frac{1}{4}$ B	Centre back	ABS, black	1,6	0/100 bar	RF63 D111	<a href="#">85120111</a>

Blue part no. = in-stock items





Housing <sup>⊗</sup>	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
63 mm	G¼B	Centre back	ABS, black	1,6	0/160 bar	RF63 D111	<a href="#">85121111</a>
63 mm	G¼B	Centre back	ABS, black	1,6	0/250 bar	RF63 D111	<a href="#">85122111</a>
63 mm	G¼B	Centre back	ABS, black	1,6	0/400 bar	RF63 D111	<a href="#">85123111</a>

Blue part no. = in-stock items