

8

“

”

2019

2006

2020

2025

“

”

2019

“

”

1.

**1.1**

/

3

1

/

$\geq 3$

$\geq 90\%$

-50 300

1%

$\pm 100g$   $\pm 300g$   $\pm 500g$

1

1%

0 100kN 0

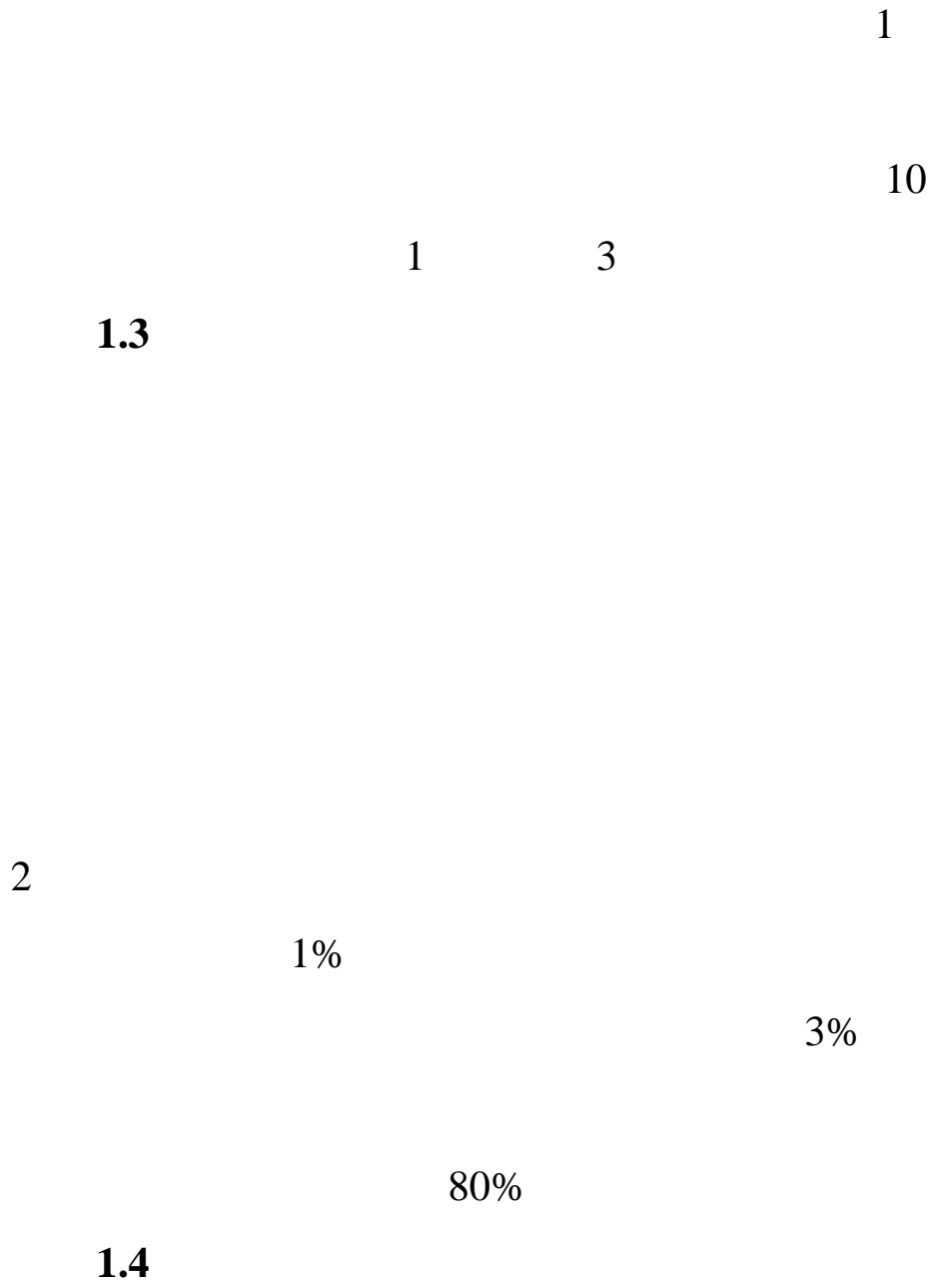
500kN 0 1000kN

1

1%

2% 3%

**1.2**



1

1

85%

1

90%

**1.5**

3

5

60

20%

**1.6**

1Hz 500Hz

$\geq 400\mu\text{W}/\text{mm}^2$

$\geq 5\mu\text{W}/\text{mm}^3 \text{ g}^2$

$\geq 0.5\mu\text{W}/\text{mm}^3 \text{ g}^2$

**1.7**

$X \times Y \times Z \geq 100\text{mm} \times 100\text{mm} \times 50\text{mm}$

1nm

E3  $250 + 4.5 \times 10^{-6}L$  nm

100 $\mu\text{m}$

2.

**2.1**

1

RV

P4

$\geq 6000$

P4

$\geq 8000$

80mm 260mm

$\geq 1$  5

$\geq 6$

## 2.2

$\geq 1$  4MW P5  
 $\leq 85$   $\geq 20$   
2 10  
200mm 1180mm  
 $\geq 1$

## 2.3

4  
 $\leq 5\text{mL/r}$   $\leq 5\text{L/min}$   
0.5ms 1.5ms 2  
1

## 2.4

250mm 650mm  
 $\geq 500$   $\geq 5000$   
2  
2.5

$\leq 1\mu\text{m}$   $\text{Ra} \leq 0.1\mu\text{m}$  5%  
250m/s 500  
25MPa 50000r/min  
2.6

$\geq 8000\text{rpm}$  2  
 $\geq 450\text{kW/kg}$

5		$\geq 96\%$	20%	
		1		
1				
<b>2.7</b>				/
				1
	50mm	200mm	$\geq 5m$	
4mm	12mm		$\leq \pm 1HRC$	$\leq 1mm/m$
		1	$\leq 1150$	
	$\leq \pm 5$		$\leq 5 \times 10^{-1} Pa/h$	
$\leq \pm 2HRC$				
	$\leq \pm 1.5HRC$			$\pm 0.03mm$
<b>2.8</b>				



6

-190

$\leq 0.5 \text{mg/m}^3$

$\geq 95\%$

3

**2.9 MEMS**

MEMS

MEMS

$\geq 20$  1

10 $\mu\text{m}$

300 $\mu\text{m}$

$\leq 0.5\%$   $k=1$

2 $\mu\text{m}$ ~30 $\mu\text{m}$

$\leq 1\%$   $k=1$

$\leq 5\text{s}$

**2.10 MEMS**

MEMS

MEMS

MEMS

MEMS

$\geq 150\text{mm}$

$\geq 5\mu\text{m}$

$\leq \pm 3\%$

$\leq 150\text{MPa}$

MEMS

$\geq 500\text{mA}$

$\leq 500\text{m}\Omega$

$\geq 1 \times 10^6$

≥85%

**2.11**

			-60°C
1800°C	≤±1.5%FS	≤10ms	
	20°C 40°C	≤1μK/	

**2.12 MEMS**

MEMS

MEMS

ASIC

NDIR

		0 5000ppm	
	0 100ppm	0 50ppm	0
100ppm	0 100ppm	≤±2%	
≤20mm×10mm×5mm		≤1%FS/	

≥2

**2.13**

ASIC

100mV/V/Oe

$\leq 10\text{pT}/@1\text{Hz}$

$\leq 30\text{mm} \times 30\text{mm} \times 5\text{mm}$

$\geq 85\%$

$0.02^\circ$

$\geq 2$

## 2.14

32

100

HART FF Profibus

16

## 2.15

$\pm 1\%FS$

30

1500

0 0.3MPa

## 2.16

30m

$\leq 10ppm$

$\leq 0.03^\circ$

2m/s

## 2.17

$\geq 6$

$\geq 6$

$\geq 90\%$

MAC

**2.18**

/

SIL2

SL2

$\geq 90\%$

3.

**3.1**

1

1

$\geq 1 \times 10^6 \text{ N m}$

$\geq 32$

$\geq 90\%$

**3.2**

—

— —

30kg                      10cm<sup>2</sup>    3000cm<sup>2</sup>                      0.05kg

≥220MPa                      ≥8%                      ≥280MPa                      ≥CT6                      5

**3.3**

≥185MPa                      ≥5%                      ≥1.5m    300

CT7    8                      I

≤10kPa                      ≥250MPa                      ≥10%

3

**3.4**



100mm/s

$\geq 99\%$  2

5