PDS815 hygienic type pressure transmitter



PDS815 hygienic type pressure transmitter is suitable for measuring the pressure and differential pressure of liquid and gas, liquid level or flow in food processing, chemical and pharmaceutical industries, and converting them into 4mA~20mA DC current (superimposed with HART communication), PROFIBUS-PA communication signal, FF communication signal, Ethernet-APL communication signal and AutBus communication signal for output to achieve remove setting, monitoring and other functions through communication devices.

◆ Performance specification

Span ratio

Max. span ratio r (r=max. span/actual span)=100:1

Long-term stability

δ≤±0.1FS%/10 years

Finish degree of liquid-contacting component

In line with 3A hygienic standard, finish degree of liquid receiving material surface Ra<0.8μm (31.5μin), or Ra<0.38μm (15 μin.)

Span of transmitter

Span code	PDS815G, PDS815B gauge pressure type				PDS815A, PDS815C absolute pressure type			
	Minimum span	Maximum span	Measuring range	Overload limit	Minimum span	Maximum span	Measuring range	Overload limit
B	10.0 kPa	100 kPa	-100 kPa~100 kPa	600 kPa	0.5 kPa	25 kPa	0 kPa~25 kPa(A)	300 kPa(A)
C	4.0 kPa	400 kPa	-100 kPa~400 kPa	1.5 MPa	2.6 kPa	130 kPa	0 kPa~130 kPa(A)	500 kPa(A)
D	0.03 MPa	3 MPa	-0.1 MPa~3 MPa	4.5 MPa	5.0 kPa	500 kPa	0 kPa~500 kPa(A)	1 MPa(A)
E	0.2 MPa	4 MPa	-0.1 MPa~4 MPa	6 MPa	0.03 MPa	3 MPa	0 MPa~3 MPa(A)	4.5MPa(A)

Note: 1) The long-term working pressure of PDS815 gauge pressure type is recommended to be higher than 50kPa (ABS).

2) If span D and E is selected for clamp type, clamps of high pressure structure are recommended.

Span code	PDS815W, PDS815S differential pressure type		
	Minimum span	Maximum span	Measuring range
C	2 kPa	10 kPa	-10 kPa~10 kPa
D	5 kPa	100 kPa	-100 kPa~100 kPa
E	16 kPa	500 kPa	-500 kPa~500 kPa
F	0.1 MPa	3 MPa	-0.5 MPa~3 MPa
G	0.4 MPa	4 MPa	-0.5 MPa~4 MPa

Note: 1) HC-276 diaphragm is not recommended when the span is less than 10kPa and the flange size is less than or equal to DN50.

2) The negative number in the table means the maximum negative migration of the corresponding span.

3) If span F and G is selected for clamp type, high pressure liquid receiving structure is recommended.

Reference accuracy δ

Span code of PDS815G gauge pressure direct-coupled type	Span code of PDS815A absolute pressure direct-coupled type	Accuracy δ
B	B and C	δ≤±0.04% δ≤±(0.004+0.0036 $\frac{\text{Maximum span}}{\text{Selected span}}$) %, span ratio >10:1
C, D, E	D and E	δ≤±0.04% δ≤±(0.015+0.0025 $\frac{\text{Maximum span}}{\text{Selected span}}$) %, span ratio >10:1

Span code of PDS815B gauge pressure remote single flange type	Span code of PDS815C absolute pressure remote single flange type	Accuracy δ
B, C, D, E	B, C, D, E	δ≤±0.1% δ≤±(0.04+0.012 $\frac{\text{Maximum span}}{\text{Selected span}}$) %, span ratio>5:1

Span code of PDS815W differential pressure liquid level single flange type	Accuracy δ
C	δ≤±(0.04+0.035 $\frac{\text{Maximum span}}{\text{Selected span}}$) %, span ratio≤5:1
D, E, F and G	δ≤±0.04% δ≤±(0.02+0.002 $\frac{\text{Maximum span}}{\text{Selected span}}$) %, span ratio >10:1

Span code of PDS815S differential pressure liquid level double flange type	Accuracy δ
C	δ≤±(0.04+0.06 $\frac{\text{Maximum span}}{\text{Selected span}}$) %, span ratio≤5:1
D	δ≤±0.1% δ≤±(0.04+0.012 $\frac{\text{Maximum span}}{\text{Selected span}}$) %, span ratio>5:1
E, F and G	δ≤±0.1% δ≤±(0.05+0.01 $\frac{\text{Maximum span}}{\text{Selected span}}$) %, span ratio>5:1

Impact of temperature

PDS815G, PDS815A direct-coupled: δ≤(0.06*r+0.01)%/28°C -60°C~+80°C

PDS815W differential pressure liquid level single flange type: δ≤±(0.06r+0.2)%/28°C -60°C~+80°C (body). Please refer to the selected sealing liquid for the lowest temperature.

PDS815B, C, S remote flange type: δ≤±(0.06r+0.35)%/28°C -60°C~+80°C (body). Please refer to the selected sealing liquid for the lowest temperature.

Process temperature range

Direct-coupled: -40°C~+120°C

Flange type: See the option of sealing liquid in product models.

Limit of over pressure or static pressure

Direct-coupled: maximum operating pressure 6MPa

Flange type: the nominal pressure of flange and the minimum value in the max. span of transmitter

◆Model

Model No.	code		Remarks				
PDS815	-		Hygienic type pressure transmitter				
Type	G A B C W S		Gauge pressure direct-coupled Absolute pressure direct-coupled Gauge pressure remote single flange type Absolute pressure remote single flange type Differential pressure liquid level single flange type Differential pressure remote double flange type				
Communication protocol	H P F A B		HART (7) communication (Note 1) PROFIBUS-PA (3.02) field bus communication FF (6.1.1) field bus communication Ethernet-APL communication(Note 2) AutBus communication				
Sealing liquid (Note 3)			Sealed liquid	Liquid contact temperature	Density		
	-1		Coconut oil-M20	-15°C~225°C	0.94g/cm^3		
	-2		Propylene glycol	-40°C~150°C	1.02g/cm^3(Not applicable to absolute pressure)		
	-3		Glycerin and water	-10°C~95°C	1.13g/cm^3(Not applicable to absolute pressure)		
	-4		HV3	-15°C~140°C	0.95g/cm^3		
	-5		pmx 200 silicone oil	-15°C~205°C	0.97g/cm^3		
Measuring range	Gauge pressure PDS815G PDS815B		Span		Measuring range		
		B	10kPa—100kPa		-100kPa—100kPa		
		C	4kPa—400kPa		-100kPa—400kPa		
		D	0.03MPa—3MPa		-0.1MPa—3MPa		
		E	0.2MPa—4MPa		-0.1MPa—4MPa		
	Absolute pressure PDS815A PDS815C		Span		Measuring range		
		B	0.5kPa—25kPa(A)		0kPa—25kPa(A)		
		C	2.6kPa—130kPa(A)		0kPa—130kPa(A)		
		D	5kPa—500kPa(A)		0kPa—500kPa(A)		
		E	0.3MPa—3MPa(A)		0MPa—3MPa(A)		
	Differential pressure PDS815W PDS815S		Span		Measuring range		
		C	2kPa—10kPa		-10kPa—10kPa		
		D	5kPa—100kPa		-100kPa—100kPa		
		E	16kPa—500kPa		-500kPa—500kPa		
		F	0.1MPa—3MPa		-0.5MPa—3MPa		
		G	0.4MPa—4MPa		-0.5MPa—4MPa		
Material of liquid contact part	S		Isolation diaphragm		Relevant liquid contact parts		
	H		316L		316		
	C		HC-276		316		
	G		HC-276		HC-276		
			316L gold plated		316		
Process connection	□□□□□□		The first and second digits are the type, standard and nominal size of process connection. See "option of process connection" for codes of options. The third and fourth digits are the length of the H side front remote capillary (00m-10m). "00" for direct-coupled and differential pressure liquid level single flange type and double flange H side front installation, medium temperature ≤ 150 C. The fifth and sixth digits are the length of the H side negative remote capillary (00m-10m), “00” means no flange.				
Explosion-proof				HART	PA and FF	APL	Autbus
	-A		Non explosion-proof type	Applicable	Applicable	Applicable	Applicable
	-B		NEPSI: Intrinsic safety type Ex ia IIC T4 Ga	Applicable	Applicable	-	-
	-C		NEPSI: Intrinsic safety type Ex ia IIC T6 Ga	Applicable	-	-	-
	-D		NEPSI: Flameproof type Ex db IIC T4/T6 Gb NEPSI: Dust explosion proof Ex tb IIIC T85°C Db NEPSI:“n” explosion-proof type Ex ec IIC T6 Gc	Applicable	Applicable	Applicable	-
	-P		EAC: Intrinsic safety type 0 Ex ia IIC T4/T6 Ga X EAC: Flameproof type 0/1Ex d IIC TT6 Ga /Gb X EAC: Dust explosion proof Ex tb IIIC T80° C Db X	Applicable	-	-	-

Housing (Note 4)		Material	Electrical interface
	1	Aluminium	1/2 NPT female thread, two electrical interfaces
	2	Aluminium	M20×1.5 female thread, two electrical interfaces
	3	Stainless steel	1/2 NPT female thread, two electrical interfaces
	4	Stainless steel	M20×1.5 female thread, two electrical
	5	Stainless steel (surface polishing treatment)	1/2 NPT female thread, two electrical interfaces
	6	Stainless steel (surface polishing treatment)	M20×1.5 female thread, two electrical
Display head (Note5)	N	Without display	
	D	LCD display	
	E	Multi-functional LCD head (only applicable to HART7)	
Installation bracket		Type	Material
	A	Horizontal (I type) mounting bracket	Q235
	B	Horizontal (I type) mounting bracket	304
	E	Horizontal (I type) mounting bracket	316
	C	Vertical (L-shaped) bracket (applicable to pipe in horizontal installation)	Q235
	D	Vertical (L-shaped) bracket (applicable to pipe in horizontal installation)	304
	F	Vertical (L-shaped) bracket (applicable to pipe in horizontal installation)	316
	N	Without installation bracket (applicable to direct installation)	
Additional options	/××	Refer to the additional options table	

◆Additional options

Item	Remarks	Code (Note 6)
High-end smart diagnosis	It includes the functions of detecting the blockage of pressure guide pipe, measuring the liquid contact temperature, recording events with time cut, capturing and recording process variable anomalies and forecasting and enabling health management	A10
suppressing the fluctuation	For the output of transient micro pressure fluctuation signals, an advanced composite digital filtering algorithm is adopted, which dynamically adjusts the filtering coefficients to achieve fast dynamic response of pressure signals and stable and reliable output	A11
Additional certification	EU SIL CE V&V Russian SIL Commonwealth of Independent States EAC020	C01 C02 C03 C04 C05
APL communicatio n method	HART-IP PROFINET	AH AP
Structural form	High temperature direct-coupled flange mounted (select when process temperature is 150°C~200°C)	G01
Treatment of liquid contact surface	Finish degree of surface Ra<0.38μm (15 μin.)	EP
Installation accessories	Clamp (304) Clamp (316) Optimum service temperature of seal ring (silicone rubber VMQ): –20°C~+150°C Optimum service temperature of seal ring (fluororubber FKM Viton): –5°C~+150°C Optimum service temperature of seal ring (EPDM): –15°C~+150°C Optimum service temperature of seal ring (HNBR): –20°C~+125°C Optimum service temperature of seal ring (PTFE): –50°C~+220°C Connector of pipe welding (304) Connector of pipe welding (316) Clamp (304), seal ring, (silicone rubber VMQ), connecting standpipe of pipe welding (304) Clamp (316), seal ring, (silicone rubber VMQ), connecting standpipe of pipe welding (316) Slotted nut (hexagonal nut might be selected for IDF-ISO2853) Installation flange	W00 W01 W02 W03 W04 W05 W06 W07 W08 W09 W10 W11 W12
Protection treatment (Note 7)	Corrosion grade C4: Moderate salt spray or moderately corrosive industrial areas (seaside or industrial zone) Corrosion grade C5-M: High humidity and high salt spray areas (seaside and sea) Corrosion grade C5-I: High humidity and severe corrosion area	P10 P11 P12

Electrical connector	Specification and dimension		Material	
	M20×1.5 electrical connector + 1 sealing plug		Plastic	G60
	1/2 NPT electrical connector + 1 sealing plug		Plastic	G61
	M20×1.5 one sealing plug		304	G62
	M20×1.5 sealing plug（EAC）		316L	G63
	1/2 NPT sealing plug（EAC）		316L	G64
	M20×1.5 flameproof electrical plug + one sealing plug(NEPSI)		316	G70
	1/2NPT flameproof electrical plug + one sealing plug(NEPSI)		316	G71
	1/2 NPT one sealing plug		304	G72
	1/2 NPT one sealing plug		316	G73
	M20×1.5 one sealing plug		316	G74
	M20×1.5 flameproof electrical plug + one sealing plug(EAC)		316L	G77
	1/2NPT flameproof electrical plug + one sealing plug(EAC)		316L	G78
Lightning prevention	Lightning prevention terminal board			F20
Alarm	Alarm current: 22.8mA (if this option is not selected, the alarm current is 3.6mA by default).			A1
Document	Delivery of acceptance documents (Note 8)			D1
Mounting thread of body	M10, applicable to PDS815W liquid level and S remote double flange transmitter (if this option is not selected, 7/16-20UNF inch thread is selected by default).			E2
Language	English (product manual, packing list, product note and main nameplate are all in English)			L01
	Russian (product manual, packing list, product note and main nameplate are all in Russian)			L02
	French (product manual, packing list, product note and main nameplate are all in French)			L03
Display unit	PV Unit	Code	PV Unit	Code
	%	U01	ftH2O	U29
	mA	U20	mbar	U30
	Pa	U21	bar	U31
	kPa	U22	psi	U32
	MPa	U23	mmHg	U33
	gf/cm2	U24	inHg	U34
	kgf/cm2	U25	Torr	U35
	mmH2O	U26	Atm	U36
	mH2O	U27	i4H2O (inches of water 4°C)	U37
	inH2O	U28	m4H2O (millimeter of water 4°C)	U38

Special reminder

※: In case of any special ordering requirements, please mark “Z” after order code, and add text description.

Note 1: If Hart 6 is selected, Z shall be added for description. For SIL (functional safety) type, only Hart7 is supported.

Note 2: To select Ethernet APL Ethernet communication, you need to choose the specific APL communication method, as shown in the additional options.

Note 3:Propylene glycol cannot be used as the sealing liquid for direct-coupled pressure transmitters, nor can it be used as the liquid sealed in diaphragm capsule for flange type pressure transmitter.

Note 4: Flameproof electrical connector must be selected for flameproof transmitter, referring to additional options.

Note 5: The default display is pressure value, and the other display modes are described in "Additional Options".

Note 6: The options shall be separated with a “/”, for example “/P10/G61/F20”.

Note 7: If the housings in P11 and P12 are selected, please choose 1 or 2.

Note 8: It refers to the common materials provided by the manufacturer for inspection of products received except the standard delivery materials (such as original qualification certificate, instructions, and packing list), and a detailed list shall be provided when ordering. In case of third-party test report or other special requirements, it will be quoted separately.

◆ Option of process connection

Select the applicable process connection type, standard and nominal size with reference to the following table according to the design data sheet and on-site technical requirements.

Type	Applicable standard	Specification code	Nominal size	Pressure level	PDS815G\A direct-coupled	PDS815B\C remote single flange	PDS815W liquid level flange	PDS815S remote double flange	Code of applicable installation accessories
Clamp type	ASMEBPE	A1	1"	4.5MPa	Applicable	——	——	——	W00 W01 W02 W03 W04 W05 W06 W07 W08 W09 W10
		A2	1- 1/2"	6MPa	Applicable	——	——	——	
		A3	2"	6MPa	Applicable	Applicable	——	Applicable	
		A4	2 1/2"	4.5MPa	Applicable	Applicable	Applicable	Applicable	
		A5	3"	3MPa	Applicable	Applicable	Applicable	Applicable	
		A6	4"	3MPa	——	Applicable	Applicable	Applicable	
Clamp type	ISO2852	B1	25	4.5MPa	Applicable	——	——	——	
		B2	33.7/38	6MPa	Applicable	——	——	——	
		B3	40/51	6MPa	Applicable	Applicable	——	Applicable	
		B4	63.5	4.5MPa	Applicable	Applicable	Applicable	Applicable	
		B5	70/76.1	3MPa	Applicable	Applicable	Applicable	Applicable	
		B6	101.6	3MPa	——	Applicable	Applicable	Applicable	
Clamp type	DIN32676	C1	DN25	4.5MPa	Applicable	——	——	——	
		C2	DN32	6MPa	Applicable	——	——	——	
		C3	DN40	6MPa	Applicable	——	——	——	
		C4	DN50	4.5MPa	Applicable	Applicable	——	Applicable	
		C5	DN65	3MPa	Applicable	Applicable	Applicable	Applicable	
		C6	DN100	3MPa	——	Applicable	Applicable	Applicable	

Type	Applicable standard	Specification code	Nominal size	Pressure level	PDS815G\A direct-coupled	PDS815B\C remote single flange	PDS815W liquid level flange	PDS815S remote double flange	Code of applicable installation accessories
Slotted nut type	DIN11851	D1	25	PN40	Applicable	——	——	——	W02 W03 W04 W05 W06 W07 W08 W11
		D2	32	PN40	Applicable	——	——	——	
		D3	40	PN40	Applicable	——	——	——	
		D4	50	PN25	Applicable	——	——	——	
		D5	65	PN25	Applicable	Applicable	Applicable	Applicable	
		D6	80	PN25	——	Applicable	Applicable	Applicable	
		D7	100	PN25	——	Applicable	Applicable	Applicable	
		DA	25	PN40	Applicable	——	——	——	
		DB	32	PN40	Applicable	——	——	——	
		DC	40	PN40	Applicable	——	——	——	

		DD	50	PN25	Applicable	——	——	——	
		DE	65	PN25	Applicable	Applicable	Applicable	Applicable	
Slotted nut type	**SMS1145**	E1	DN32	PN25	Applicable	——	——	——	
		E2	DN40	PN25	Applicable	——	——	——	
		E3	DN50	PN25	Applicable	——	——	——	
		E4	DN65	PN25	Applicable	——	——	——	
		E5	DN80	PN16	Applicable	Applicable	Applicable	Applicable	
		E6	DN100	PN16	Applicable	Applicable	Applicable	Applicable	
		EA	DN32	PN25	Applicable	——	——	——	
		EB	DN40	PN25	Applicable	——	——	——	
		EC	DN50	PN25	Applicable	——	——	——	
		ED	DN65	PN25	Applicable	Applicable	Applicable	Applicable	
Slotted nut type	**IDF-ISO2853**	F1	38	PN25	Applicable	Applicable	Applicable	Applicable	
		F2	51	PN25	Applicable	——	——	——	
		F3	63.5	PN25	Applicable	Applicable	Applicable	Applicable	
		F4	76.1	PN16	Applicable	Applicable	Applicable	Applicable	
		F5	101.6	PN16	Applicable	Applicable	Applicable	Applicable	
		FA	38	PN25	Applicable	——	——	——	
		FB	51	PN25	Applicable	——	——	——	
		FC	63.5	PN25	Applicable	Applicable	Applicable	Applicable	

Type	**Applicable standard**	**Specification code**	**Nominal size**	**Pressure level**	**PDS815G\A direct-coupled**	**PDS815B\C remote single flange**	**PDS815W liquid level flange**	**PDS815S remote double flange**	**Code of applicable installation accessories**
Slotted nut type	**RJT-BS4825-5**	G1	38.1	PN25	Applicable	——	——	——	W02 W03 W04 W05 W06 W07 W08
		G2	50.8	PN25	Applicable	——	——	——	
		G3	63.5	PN25	Applicable	Applicable	Applicable	Applicable	
		G4	76.1	PN16	Applicable	Applicable	Applicable	Applicable	
		G5	101.6	PN16	Applicable	Applicable	Applicable	Applicable	
		GA	38.1	PN25	Applicable	——	——	——	
		GB	50.8	PN25	Applicable	——	——	——	
		GC	63.5	PN25	Applicable	Applicable	Applicable	Applicable	
VARIVENT pipe joint type	**VARIVENT**	H1	Type F, applicable to pipe DN25—32	PN40	Applicable	Applicable	——	——	W02 W03 W04 W05
		H2	Type N, applicable to pipe DN40—162	PN40	Applicable	Applicable	Applicable	Applicable	

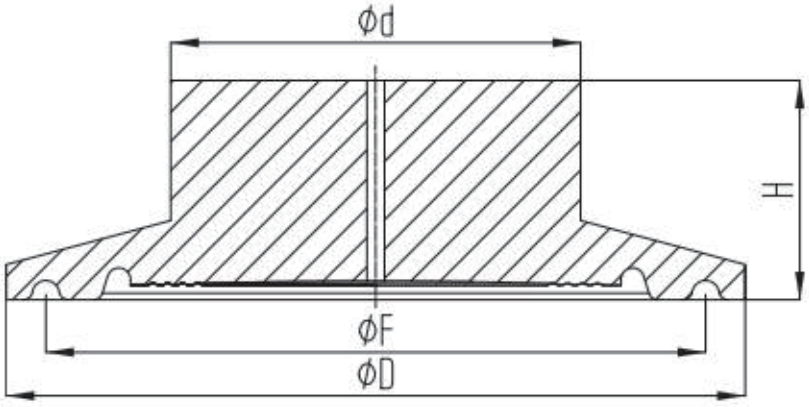
DRD plane face flange type	**DRD**	J1	DN50	PN25	Applicable	Applicable	Applicable	Applicable	W06 W07
Plane face flange type	**European and American systems in HG20592~HG20635-2009 and GB/T9112~GB/T9131-2000**	K1	DN50	DIN PN10~16	Applicable	Applicable	Applicable	Applicable	W06
		K2	DN50	DIN PN25~40	Applicable	Applicable	Applicable	Applicable	
		K3	DN50	DIN PN64	Applicable	Applicable	Applicable	Applicable	
		K4	DN50	DIN N100	Applicable	Applicable	Applicable	Applicable	
		K5	DN50	ANSI 150	Applicable	Applicable	Applicable	Applicable	
		K6	DN50	ANSI 300	Applicable	Applicable	Applicable	Applicable	
		K7	DN50	ANSI 600	Applicable	Applicable	Applicable	Applicable	
		K8	DN50	ANSI 900	Applicable	Applicable	Applicable	Applicable	
Thin-walled plane face flange type	**Customized**	M1	DN25	PN16	Applicable	——	——	——	W02 W03 W04 W05
		M2	DN50	PN16	Applicable	Applicable	Applicable	Applicable	
		M3	DN65	PN16	Applicable	Applicable	Applicable	Applicable	
		M4	DN80	PN16	Applicable	Applicable	Applicable	Applicable	
Clamp boss flange type	**Customized**	N1	DN100 (insertion depth 50)	PN40	Applicable	Applicable	Applicable	Applicable	W00 W01 W06 W07 W08
		N2	DN100 (insertion depth 100)	PN40	Applicable	Applicable	Applicable	Applicable	

◆Type, size and pressure level of process connection

1. Clamp type

Applicable to three standards of ASME BPE, ISO2852 and DIN32676, maximum operating pressure 6MPa. When the span of clamp type is ≥2.5MPa, high pressure liquid receiving structure should adopted to withstand short-term high-temperature cleaning, with the maximum temperature not exceeding 150 °C.

Unit: mm



The type code for ASME BPE standard process connection is A. The size for outer diameter of pipe is Φd, and the standard for pipe joint is ASME BPE 2016.							
Model code of process connection	**Nominal size**	**Maximum operating pressure**	**ΦD**	**ΦF**	**Φd**	**H**	**Material**
A1	1"	4.5MPa	50.4	43.6	25.4	28.58	316
A2	1 1/2"	6MPa	50.4	43.6	38.1	28.58	
A3	2"	6MPa	63.9	56.3	50.8	28.58	
A4	2 1/2"	4.5MPa	77.4	70.6	63.5	28.58	
A5	3"	3MPa	90.9	83.3	76.2	28.58	
A6	4"	3MPa	118.9	110.3	101.6	28.58	
The type code for ISO2852 standard process connection is B. The size for outer diameter of pipe is Φd, and the standard for pipe joint is ISO 2037.							
Model code of process connection	**Nominal size**	**Maximum operating pressure**	**ΦD**	**ΦF**	**Φd**	**H**	**Material**
B1	25	4.5MPa	50.5	43.5	25.6	21.5	316
B2	33.7/38	6MPa	50.5	43.5	38	21.5	
B3	40/51	6MPa	64	56.5	51	21.5	
B4	63.5	4.5MPa	77.5	70.5	63.5	21.5	
B5	70/76.1	3MPa	91	83.5	76.1	21.5	
B6	101.6	3MPa	106	110	101.6	21.5	

The type code for DIN32676 standard process connection is C. The size for outer diameter of pipe is Φd, and the standard for pipe joint is DIN 11850.							
Model code of process connection	**Nominal size**	**Maximum operating pressure**	**ΦD**	**ΦF**	**Φd**	**H**	**Material**
C1	DN25	4.5MPa	50.5	43.5	26	21.5	316
C2	DN32	6MPa	50.5	43.5	32	21.5	
C3	DN40	6MPa	50.5	43.5	38	21.5	
C4	DN50	4.5MPa	64	56.5	50	21.5	
C5	DN65	3MPa	91	83.5	66	28	
C6	DN100	3MPa	119	110	100	28	

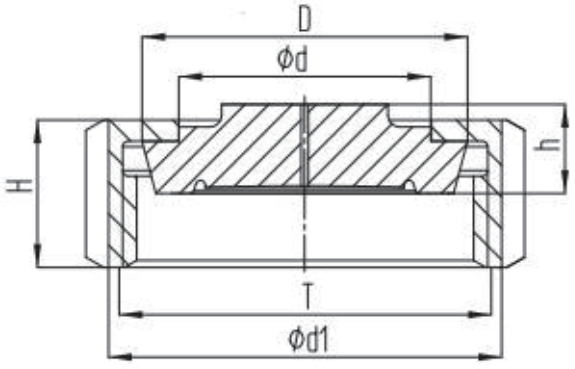
2. Slotted nut type

Applicable to four standards, such as DIN11851, SMS1145, IDF-ISO2853 and APV-RJT-BS4825.

The type code for DIN11851 standard process connection is D. The size for outer diameter of pipe is Φd, and the standard for pipe joint is DIN 11850.

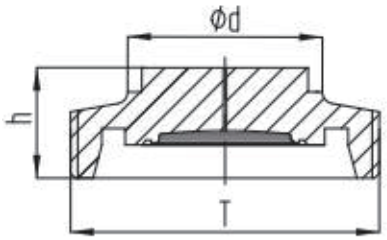
Unit: mm

DIN11851 slotted nut



Model code of process connection	**Nominal size**	**Pressure level**	**T**	**D**	**Φd**	**Φd1**	**H**	**h**	**Material**
D1	DN25	PN40	Rd52×1/6	44	35	56	21	22	316
D2	DN32	PN40	Rd58×1/6	50	41	62	21	25	
D3	DN40	PN40	Rd65×1/6	56	48	70	21	26	
D4	DN50	PN25	Rd78×1/6	68.5	61	84	22	28	
D5	DN65	PN25	Rd95×1/6	86	79	102	25	32	
D6	DN80	PN25	Rd110×1/4	100	93	117	29	37	
D7	DN100	PN25	Rd130×1/4	121	114	138	31	44	

DIN11851 male thread joint

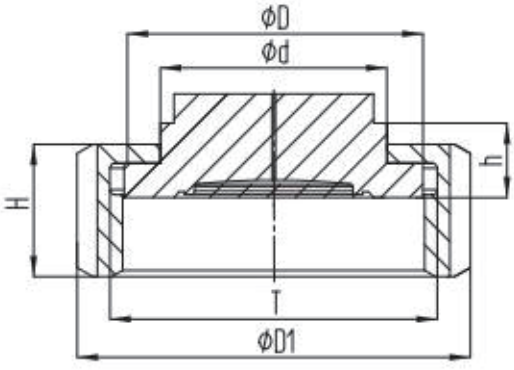


Model code of process connection	Nominal size	Pressure level	T	Φd	h	Material
DA	DN25	PN40	Rd52×1/6	29	29	316
DB	DN32	PN40	Rd58×1/6	35	32	
DC	DN40	PN40	Rd65×1/6	41	38	
DD	DN50	PN25	Rd78×1/6	53	35	
DE	DN65	PN25	Rd95×1/6	70	40	

The type code for SMS standard process connection is E. The size for outer diameter of pipe is Φd, and the standard for pipe joint is SMS 3008(ISO 2037).

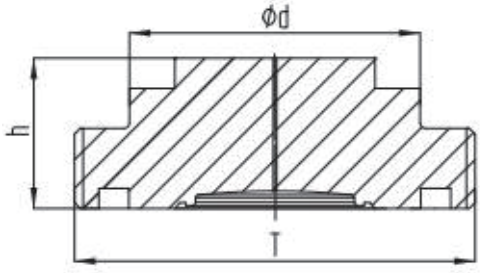
Unit: mm

SMS1145 slotted nut



Model code of process connection	Nominal size	Pressure level	T	ΦD	Φd	ΦD1	H	h	Material
E1	DN32	PN25	Rd48×1/6	44.6	31.8	58	23	11	316
E2	DN40	PN25	Rd60×1/6	56.4	38.1	72	23	11	
E3	DN50	PN25	Rd70×1/6	66.6	50.8	82	23	11	
E4	DN65	PN25	Rd85×1/6	81.6	65.5	98	25	11	
E5	DN80	PN16	Rd98×1/6	94.4	76.2	112	26	12	
E6	DN100	PN16	Rd124×1/6	120.5	101.6	140	28	14	

SMS1145 male thread joint type

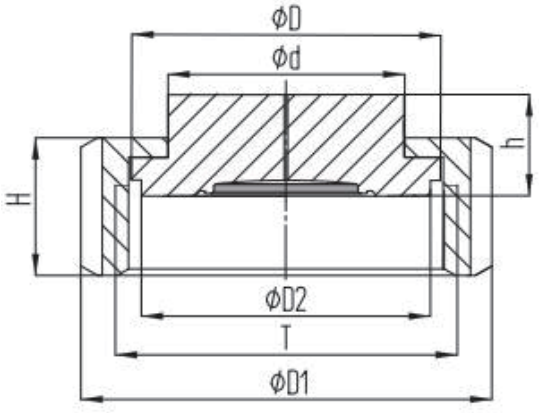


Model code of process connection	Nominal size	Pressure level	T	Φd	h	Material
EA	DN32	PN25	Rd48×1/6	31.8	21	316
EB	DN40	PN25	Rd60×1/6	38.1	21	
EC	DN50	PN25	Rd70×1/6	50.8	21	
ED	DN65	PN25	Rd85×1/6	65.5	23	

The type code for IDF-2853 standard process connection is F. The pipe size is Φd. Lock nuts are divided into slotted nuts and hexagonal nuts). The standard for pipe joint is ISO 2037. Slotted lock nuts are used by default.

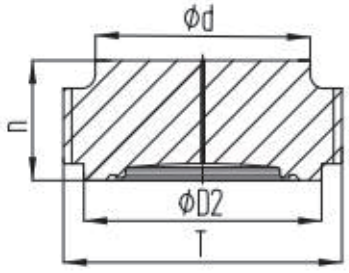
Unit: mm

IDF-IS02853 slotted nut



Model code of process connection	Nominal size	Pressure level	T	ΦD	Φd	ΦD1	ΦD2	H	h	Material
F1	38	PN25	IDF 1.5	47	38.6	64	42.7	30	21.5	316
F2	51	PN25	IDF 2	60.5	51.6	77	56.2	30	21.5	
F3	63.5	PN25	IDF 2.5	74	64.1	91	69.9	30	21.5	
F4	76.1	PN16	IDF 3	87.5	76.7	106	82.6	30	21.5	
F5	101.6	PN16	IDF 4	114.1	102.5	135	108.7	30	21.5	

IDF-IS02853 male thread joint type

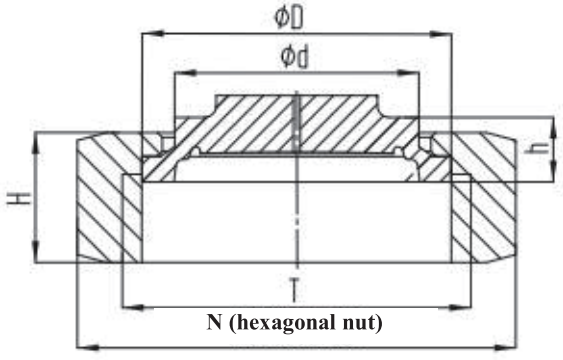


Model code of process connection	Nominal size	Pressure level	T	Φd	ΦD2	h	Material
FA	38	PN25	IDF 1.5	38.6	42.7	21.5	316
FB	51	PN25	IDF 2	51.6	56.2	21.5	
FC	63.5	PN25	IDF 2.5	64.1	69.9	21.5	

The type code for RJT-BS4825-5 standard process connection is G. The pipe size is Φd. Hexagonal nuts are selected as lock nuts. The standard for pipe joint is BS 4825-1.

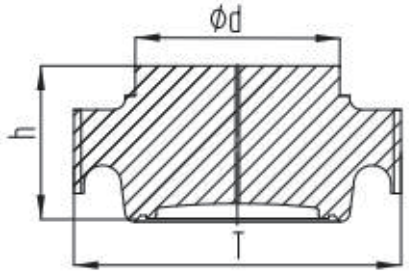
Unit: mm

RJT-BS4825-5 slotted nut



Model code of process connection	Nominal size	Pressure level	T	ΦD	Φd	N	H	h	Material
G1	38.1	PN25	RJT 1.5	54	38.35	65	22.2	12.7	316
G2	50.8	PN25	RJT 2	66.7	51.05	79.4	22.2	12.7	
G3	63.5	PN25	RJT 2.5	79.4	63.75	92.1	22.2	12.7	
G4	76.1	PN16	RJT 3	92.1	76.45	104.8	22.2	12.7	
G5	101.6	PN16	RJT 4	117.5	101.85	130.2	22.2	12.7	

RJT-BS4825-5 male thread joint type

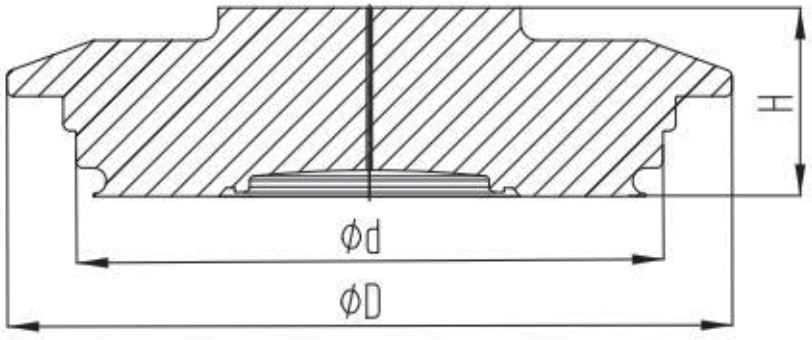


Model code of process connection	Nominal size	Pressure level	T	Φd	h	Material
GA	38.1	PN25	RJT 1.5	38.35	21.5	316
GB	50.8	PN25	RJT 2	51.05	21.5	
GC	63.5	PN25	RJT 2.5	63.75	21.5	

3. Pipe joint

The type code for VARIVENT standard process connection is H. The pipe size is Φd.

Unit: mm



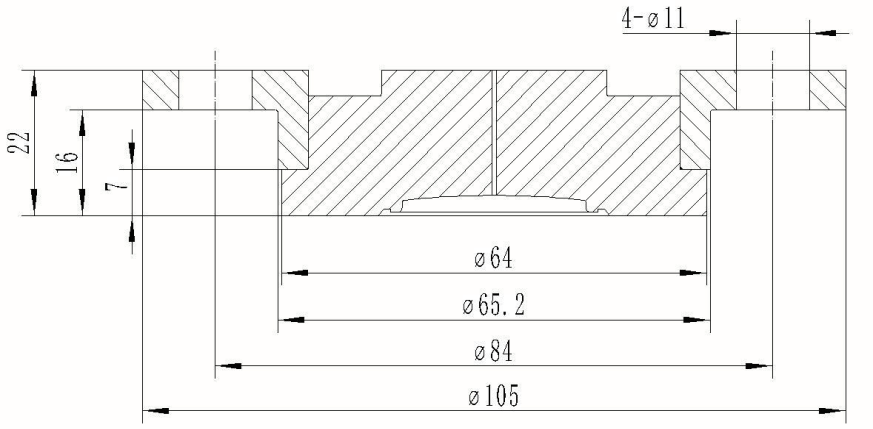
Model code of process connection	Nominal size	Pressure level	D (mm)	H (mm)	Material
H1	Type F, applicable to pipe DN 25..32	PN40	50	25	316
H2	Type N, applicable to pipe DN 40...162	PN40	68	25	

4. Plane face flange type

Applicable to DRD plane face flanges, plane face flanges of European and American standards, and thin-walled plane face flanges.

The type code for process connection of DRD plane face flange is J. The nominal size is DN50.

Unit: mm



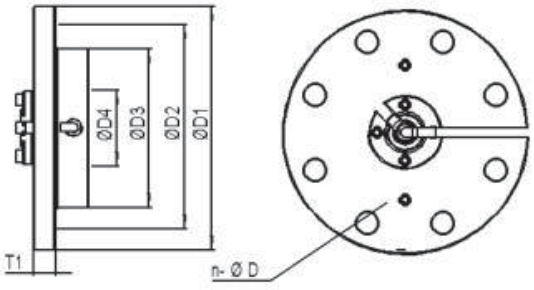
Model code of process connection	Nominal size	Pressure level	Material
J1	DN50	PN25	316

The type code for process connection of plane face flanges of European and American standards is K. The nominal size is DN50.

Type codes 1-4 are applicable to European systems in HG20592-2009 ~ HG20614-2009 and GB/T9112-2000 ~ GB/T9131-2000.

Type codes 5-8 are applicable to American systems in HG20615-2009 ~ HG20635-2009 and GB/T9112-2000 ~ GB/T9131-2000.

Unit: mm

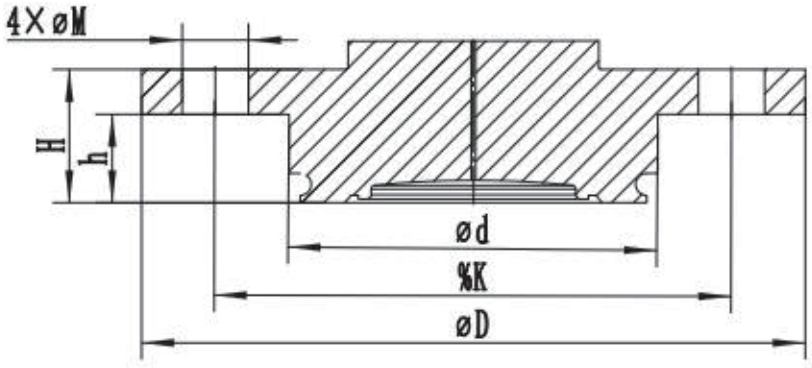


Model code of process connection	Nominal size	Flange standard	D1	D2	D3	D4	T1	Bolt number n	Bolt hole diameter d	Material
K1	DN50	DIN PN10~16	165	125	100	61	18	4	18	316
K2	DN50	DIN PN25~40	165	125	100	61	20	4	18	
K3	DN50	DIN PN64	180	135	100	61	26	4	22	
K4	DN50	DIN PN100	195	145	100	61	28	4	26	
K5	DN50	ANSI 150	150	120.7	100	61	19.5	4	18	

K6	DN50	ANSI 300	165	127	100	61	22.7	8	18	
K7	DN50	ANSI 600	165	127	100	61	32.4	8	18	
K8	DN50	ANSI 900	215	165.1	100	61	45.1	8	26	

The type code for process connection of thin-walled plane face flange is M. The nominal size is DN25~DN80.

Unit: mm

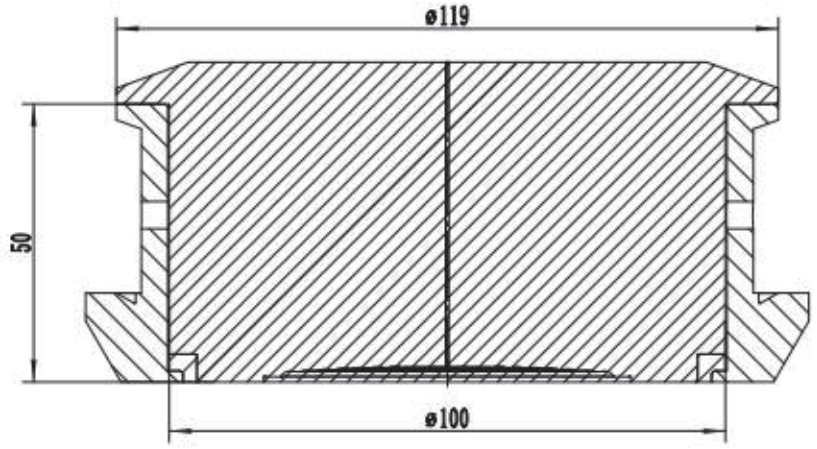


Model code of process connection	Nominal size	Flange standard	ΦD	ΦK	Φd	H	h	ΦM	Bolt number n	Bolt hole diameter d	Material
M1	DN25	PN16	64	50	30.5	20	11	7	4	16	316
M2	DN50	PN16	90	70	50	27	17	9	4	18	
M3	DN65	PN16	120	95	68	27	17	11	4	18	
M4	DN80	PN16	140	115	87.5	37	25	11	4	26	

5. Clamp boss flange connected type

The length of inserted cylinder for clamp boss flange connected type can be customized. The max. length shall not exceed 150mm.

Unit: mm



Model code of process connection	Nominal size	Pressure level	Insertion depth	Material

N1	DN100	PN40	50	316
N2	DN100	PN40	100	