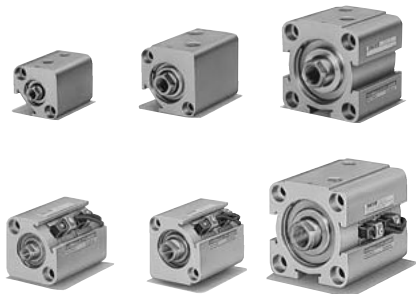


1/2 installation space, compared to 35H-3 series

- Replaceable seals
- Rod end specifications of two types: female and male threads
- Compared to the tie-rod type cylinders, the installation space is reduced to approx. 1/2.
- Cylinders with magnetic proximity sensors are standardized.
- Hydrogenated nitrile rubber (HNBR) is adopted as a seal material for sliding parts.
- Square rings are adopted for the piston seals.



Standard Specifications

Type	Standard type	Switch Set
Nominal pressure	3.5 MPa	
Maximum allowable pressure	4 MPa	
Proof test pressure	5 MPa	
Minimum operating pressure	$\phi 20 \cdot \phi 25 \cdot \phi 32 : 0.15 \text{ MPa}$ $\phi 40 \cdot \phi 50 \cdot \phi 63 : 0.1 \text{ MPa}$	
Working speed range	8 to 100mm/s	
Working temperature range (ambient temp. and oil temp.)	Standard type	-10 to +70°C
	Switch Set AX/AZ type	-10 to +70°C
	WR/WS type	-10 to +60°C (No freezing)
Structure of cushioning	None	
Applicable hydraulic fluid	Petroleum-based fluid (When using another fluid, refer to the table of fluid adaptability.)	
Tolerance for thread	JIS 6H/6g	
Tolerance of stroke	0 to 1.0mm	
Mounting style	Basic style	
Rod end threads	Female thread and male thread	

Adaptability of Fluid to Seal Material

Seal material	Adaptable fluid				
	Petroleum-based fluid	Water-glycol fluid	Phosphate ester fluid	W/O Water in oil fluid	O/W Oil in water fluid
HNBR	○	○	×	○	○

Notes) ○: Applicable ×: Inapplicable
Consult us before using phosphate ester fluid.

Terminologies

Nominal pressure
Pressure given to a cylinder for convenience of naming.
It is not always the same as the working pressure (rated pressure) that guarantees performance under the specified conditions.

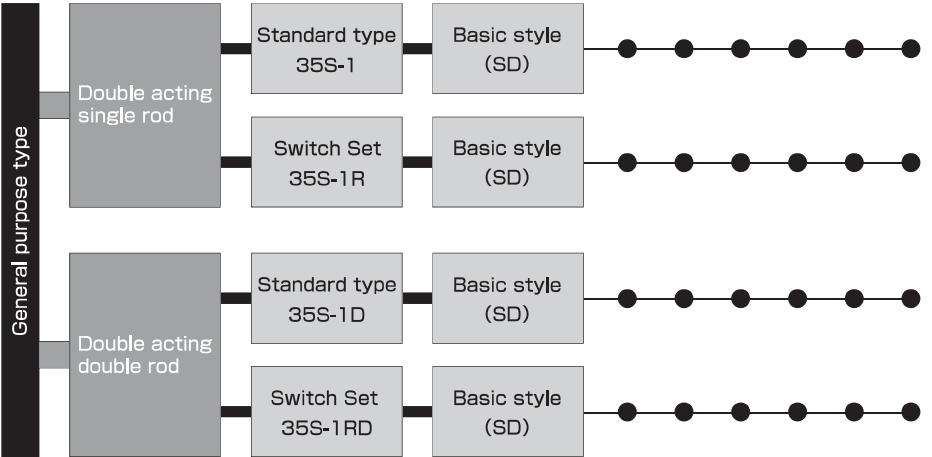
Maximum allowable pressure
Maximum allowable pressure generated in a cylinder (surge pressure, etc.).

Proof test pressure
Test pressure against which a cylinder can withstand without unreliable performance at the return to nominal pressure.

Minimum operating pressure
Minimum pressure at which cylinder installed horizontally operates under no load.

- Notes)
- The hydraulic pressure generated in a cylinder due to the inertia of load must be lower than the maximum allowable pressure.
 - In case that the lock nut is attached to the piston rod end thread part, increase the thread length (dimension A).
 - The cylinder body is not cutting oil proof.
 - This cylinder does not have air vents.
 - For the internal structure, refer to the sectional drawings at the end of this catalog.
 - When the piston hits against the cylinder end face at the stroke end, reduce the speed to less than the minimum speed.

Product Lineup			Unit: mm						
Series Variations	Type	Mounting style	$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$	$\phi 50$	$\phi 63$	



Notes) • When using a sensor, use a Switch Set Cylinder.
• No sensor can be mounted onto the standard type cylinder.

Standard Type

Double acting single rod (35S-1)

Double acting double rod (35S-1D)

Switch Set

Double acting single rod (35S-1R)

Double acting double rod (35S-1RD)

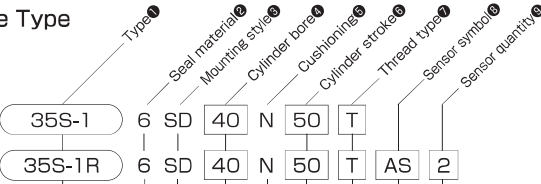
35S-1
Space-saving Hydraulic Cylinders

Space-saving Hydraulic Cylinders
35S-1

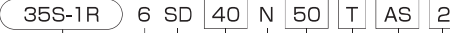
How to order

General Purpose Type

Standard type



Switch Set



- Standard type
- 35S-1 :Double acting single rod
- 35S-1D :Double acting double rod
- Switch Set
- 35S-1R :Double acting single rod
- 35S-1RD:Double acting double rod

HNBR

Basic style

Cylinder bore (mm)
φ20 to φ63

No cushion

Cylinder stroke (mm)

Female thread type (No entry for standard type)

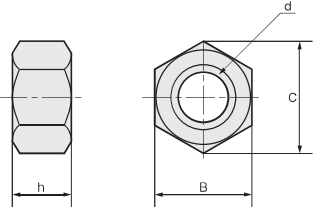
Male thread type (with lock nut)

Note) In the case of double acting double rod type, both sides are male thread type.

Semi-standard range

- Change of piston rod end

Lock nut number for ordering



Adaptability of Fluid to Seal Material

Seal material	Adaptable fluid				
	Petroleum-based fluid	Water-glycol fluid	Phosphate ester fluid	Water in oil fluid	Oil in water fluid
HNBR	○	○	×	○	○

Notes) ○: Applicable ×: Inapplicable
Consult us before using phosphate ester fluid.

Dimensional Table

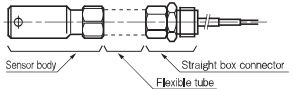
Unit: mm

Bore	Part number	d	B	C	h
φ20	LNA-10Z-H	M10×1.25	17	19.6	6
φ25	LNA-10Z-H	M10×1.25	17	19.6	6
φ32	LNA-12Z-H	M12×1.25	19	21.9	7
φ40	LNA-12Z-H	M12×1.25	19	21.9	7
φ50	LNA-18Z-H	M18×1.5	24	27.7	11
φ63	LNA-18Z-H	M18×1.5	24	27.7	11

Notes on ordering WR or WS type sensors

- When ordering the cutting oil proof type sensors, WR and WS types, please be carefully the following notification.

5	WR525	The sensor and straight box connector (F-SB) are combined (the flexible tube (F-0.5; 4.8m) is required).
8	WR535	
2	WS235-1	
1	WS245-1	
7	WR525F	Sensor body provided with straight box connector (F-SB) and flexible tube (F-0.5; 4.8m)
4	WS235-1F	



Sensor List

Semi-standard

Type	Sensor symbol	Load voltage range	Load current range	Max. switching capacity	Protective circuit	Indicating lamp	Wiring method	Cord length	Applicable load	
Reed sensor	AF AX101CE	DC:5 to 30V AC:5 to 120V	DC:5 to 40mA AC:5 to 20mA	DC:1.5W AC:2VA	None	LED (lights in red when sensing)	0.3 mm ² , 2-core, outer dia. φ4 mm Rear wiring	1.5m	Small relay, programmable controller	
	AG AX105CE				Provided			5m		
	AH AX111CE							1.5m		
	AJ AX115CE							5m		
	AE AX125CE	DC: 30 V or less AC: 120 V or less	DC: 40 mA or less AD: 20 mA or less	None	None	5m				
	AK AX11ACE	AC:5 to 120V	5 to 20mA		2VA	Provided	LED (lights in red when sensing)	4-pin connector type Rear wiring		0.5m
	AL AX11BCE	DC:5 to 30V	5 to 40mA		1.5W		LED (lights in red when sensing)	0.3 mm ² , 2-core, outer dia. φ4 mm Rear wiring		0.5m
	5 WR525	DC:5 to 50V AC:5 to 120V	DC:3 to 40mA AC:3 to 20mA		DC:1.5W AC:2VA		None	LED (lights in red when sensing)		0.3 mm ² , 2-core, outer dia. φ4 mm Rear wiring
	7 WR525F	5m								
	AP AZ101CE	DC:5 to 30V AC:5 to 120V	DC:5 to 40mA AC:5 to 20mA	DC:1.5W AC:2VA	None	LED (lights in red when sensing)	0.3 mm ² , 2-core, outer dia. φ4 mm Upper wiring	1.5m		
	AR AZ105CE				Provided			5m		
	AS AZ111CE							1.5m		
	AT AZ115CE							5m		
	AN AZ125CE	DC: 30 V or less AC: 120 V or less	DC: 40 mA or less AD: 20 mA or less	None	None	5m				
	AU AZ11ACE	AC:5 to 120V	5 to 20mA		2VA	Provided	LED (lights in red when sensing)	4-pin connector type Upper wiring		0.5m
AW AZ11BCE	DC:5 to 30V	5 to 40mA	1.5W		LED (lights in red when sensing)		0.3 mm ² , 2-core, outer dia. φ4 mm Rear wiring	0.5m		
AM AX135CE	AC/DC:90 to 240V	5 to 300mA	B contact output		Provided		LED (lights in red when not sensing)	0.3 mm ² , 2-core, outer dia. φ4 mm Upper wiring	5m	
AY AZ135CE				5m						
Solid state sensor	8 WR535	DC:5 to 50V AC:5 to 120V	DC:3 to 40mA AC:3 to 20mA	DC:1.5W AC:2VA	None	LED(lights in red when sensing)	0.3 mm ² , 2-core, outer dia. φ4 mm Upper wiring	5m		
	BE AX201CE-1	DC:5 to 30V	5 to 40mA	—	Provided	LED (lights in red when sensing)	0.3 mm ² , 2-core, outer dia. φ4 mm Rear wiring	1.5m		
	BF AX205CE-1							5m		
	CE AX211CE-1							1.5m		
	CF AX215CE-1	DC:10 to 30V	5 to 20mA	—	Provided	LED (two-LED type in red/green)	0.3 mm ² , 2-core, outer dia. φ4 mm Upper wiring	5m		
	2 WS235-1							5m		
	4 WS235-1F							5m		
	BM AZ201CE-1	DC:5 to 30V	5 to 40mA	—	Provided	LED (lights in red when sensing)	0.3 mm ² , 2-core, outer dia. φ4 mm Upper wiring	1.5m		
	BN AZ205CE-1							5m		
	CM AZ211CE-1							1.5m		
	CN AZ215CE-1							5m		
	Cutting oil proof type	RA AX205WCE	DC:5 to 30V	5 to 40mA	—	Provided	LED (lights in red when sensing)	0.3 mm ² , 2-core, outer dia. φ4 mm Rear wiring	5m	
		RB AZ205WCE							5m	
		1 WS245-1	DC:10 to 30V	5 to 20mA	—	Provided	LED(two-LED type in red/green)	0.3 mm ² , 2-core, outer dia. φ4 mm Upper wiring	5m	
		Solid state sensor	CT AX211CE-1	DC:5 to 30V	5 to 40mA	—	Provided	LED (two-LED type in red/green)	0.3 mm ² , 2-core, outer dia. φ4 mm Rear wiring	1.5m
CU AX215CE-1			5m							
CV AX21BCE-1			4-pin connector type Rear wiring							0.5m
CW AZ211CE-1			0.3 mm ² , 2-core, outer dia. φ4 mm Upper wiring							1.5m
CX AZ215CE-1	5m									
CY AZ21BCE-1	4-pin connector type Upper wiring		0.5m							

Notes) ● For the sensors without a protective circuit, be sure to provide a protective circuit (SK-100) with the load when using any induction load (relay, etc.).
● The output logic of AX and AZ135CE is B contact. When the piston is detected, the sensor contact turns off (the lamp turns on).
● For the details of sensors, be sure to read the sensor specifications at the end of this catalog.
● WR and WS type sensors are cutting oil proof.
● We recommend AND Unit (AU series) for multiple sensors connected in series.
For details, refer to AND Unit at the end of this catalog.

Standard type

AX type (rear wiring)

AZ type (upper wiring)

Cutting oil proof type

WR/WS type sensor

● Rear wiring

● Upper wiring



WR535 WS245-1



Standard Stroke Range

	Series variations	Type	Mounting style	Bore	Cylinder stroke (mm)																Male thread type
					5	10	15	20	25	30	35	40	45	50	60	70	80	90	100		
General purpose type	Double acting single rod	Standard type 35S-1	Basic style (SD)	φ20	○	○	○	○	○	○	○	○	○	○	—	—	—	—	—	○	
				φ25	○	○	○	○	○	○	○	○	○	○	○	—	—	—	—	○	
				φ32	○	○	○	○	○	○	○	○	○	○	○	○	—	—	○		
				φ40	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
				φ50	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
				φ63	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
		Switch Set 35S-1R	Basic style (SD)	φ20	○	○	○	○	○	○	○	○	○	○	—	—	—	—	—	○	
				φ25	○	○	○	○	○	○	○	○	○	○	○	—	—	—	—	○	
				φ32	○	○	○	○	○	○	○	○	○	○	○	○	—	—	○		
				φ40	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
				φ50	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
				φ63	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
	Double acting double rod	Standard type 35S-1D	Basic style (SD)	φ20	○	○	○	○	○	○	□	□	□	□	—	—	—	—	—	○	
				φ25	○	○	○	○	○	○	□	□	□	□	□	—	—	—	—	○	
				φ32	○	○	○	○	○	○	○	○	○	○	□	□	□	—	—	○	
				φ40	○	○	○	○	○	○	○	○	○	○	□	□	□	□	□	○	
				φ50	○	○	○	○	○	○	○	○	○	○	□	□	□	□	□	○	
				φ63	○	○	○	○	○	○	○	○	○	○	□	□	□	□	□	○	
		Switch Set 35S-1RD	Basic style (SD)	φ20	○	○	○	○	○	○	□	□	□	□	—	—	—	—	—	○	
				φ25	○	○	○	○	○	○	□	□	□	□	□	—	—	—	—	○	
				φ32	○	○	○	○	○	○	○	○	○	○	□	□	□	—	—	○	
				φ40	○	○	○	○	○	○	○	○	○	○	□	□	□	□	□	○	
				φ50	○	○	○	○	○	○	○	○	○	○	□	□	□	□	□	○	
				φ63	○	○	○	○	○	○	○	○	○	○	□	□	□	□	□	○	

○: Standard range □: Semi-standard range

Sensor Mountable Minimum Stroke

Bore	With one sensor		With two sensors					
	AX/AZ type	WR/WS type	AX/AZ type		WR525	WR535	WS235	WS245
			Reed sensor	Solid state sensor				
φ20 to φ32	5	10	10	15	—	—	—	—
φ40 to φ63			10 (5) *		20	10	20	15

- Notes)
- The parenthesized value applies in the case where one sensor is mounted in each of the two sensor mounting grooves.
 - Cylinders with bores of 20, 25 and 32 mm can be provided with one WR or WS type sensor. Cylinders with bores of 40, 50 and 63 mm can be provided with two sensors. In this case, use the two sensor mounting grooves. One sensor can be mounted in one mounting groove
 - When two reed sensors are used on one surface at a stroke of 10 mm, adjust their positions because the sensors may interfere with each other.
 - When solid state sensors are used on a cylinder with a bore of 40 mm or more at a stroke of 10 mm, use the two sensor mounting grooves.

Operating Range and Hysteresis

Bore	Contact				Non-contact			
	AX/AZ type		WR type		AX/AZ type		AX*W, AZ*W, WS types	
	Operating range	Hysteresis	Operating range	Hysteresis	Operating range	Hysteresis	Operating range	Hysteresis
ϕ 20	8 to 12	2 or less	7 to 12	2 or less	4 to 7	1 or less	11 to 18	2 or less
ϕ 25			9 to 13					
ϕ 32	5 to 11		4 to 9					
ϕ 40								
ϕ 50								
ϕ 63								

Weight Table

Unit: kg

Bore mm	Double acting single rod					Double acting double rod				
	Standard type 35S-1		Switch Set 35S-1R		Male thread additional weight	Standard type 35S-1D		Switch Set 35S-1RD		Male thread additional weight
	Basic weight	Additional weight per mm of stroke	Basic weight	Additional weight per mm of stroke		Basic weight	Additional weight per mm of stroke	Basic weight	Additional weight per mm of stroke	
φ20	0.180	0.0040	0.240	0.0040	0.025	0.260	0.0050	0.335	0.0050	0.05
φ25	0.240	0.0045	0.315	0.0045	0.025	0.350	0.0055	0.445	0.0055	0.05
φ32	0.380	0.0070	0.500	0.0070	0.048	0.570	0.0090	0.710	0.0090	0.096
φ40	0.590	0.0080	0.760	0.0080	0.048	0.905	0.0100	1.095	0.0100	0.096
φ50	1.020	0.0105	1.225	0.0105	0.135	1.500	0.0135	1.730	0.0135	0.27
φ63	1.695	0.0140	2.015	0.0140	0.135	2.490	0.0170	2.840	0.0170	0.27

Sensor Additional Weight Table

Unit: kg

AX/AZ type			WR/WS type
Cord length 1.5 m	Cord length 5 m	Connector type	0.50
0.05	0.10	0.05	

Calculation formula
Cylinder weight (kg)=
basic weight+(cylinder stroke (mm)×additional weight per mm of stroke)+(sensor additional weight×sensor quantity)
Calculation example
35S-1R, bore φ32, cylinder stroke 20 mm, 2 pcs of AX111 (cord length 1.5 m)
0.500+(20×0.0070)+(0.046×2)=0.732kg

Piston Pressurized Area Table

Unit: mm²

Bore mm	Rod dia. mm	Double acting single rod		Double acting double rod	
		Extension side	Retraction side	Extension side	Retraction side
φ20	φ12	314	201	201	
φ25	φ12	491	378	378	
φ32	φ18	804	550	550	
φ40	φ18	1257	1002	1002	
φ50	φ22	1963	1583	1583	
φ63	φ22	3117	2737	2737	

Calculation formula F=A·P·β (N)
F: Cylinder force (N)
A: Piston pressurized area (mm²)
P: Working pressure (MPa)
β: Load rate
Calculation example
Double acting single rod, bore φ40, working pressure: 3.5 MPa
Load rate: 0.8
Cylinder force on extension side (N) =1257×3.5×0.8=3520 (N)
Cylinder force on retraction side (N) =1002×3.5×0.8=2810 (N)

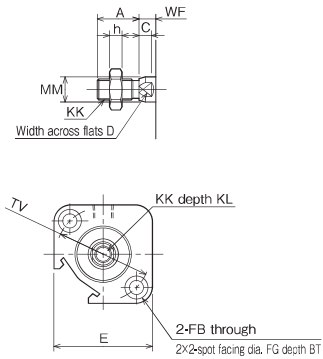
SD

35S-1 6 SD Bore N Stroke T

None: Female thread type
T : Male thread type

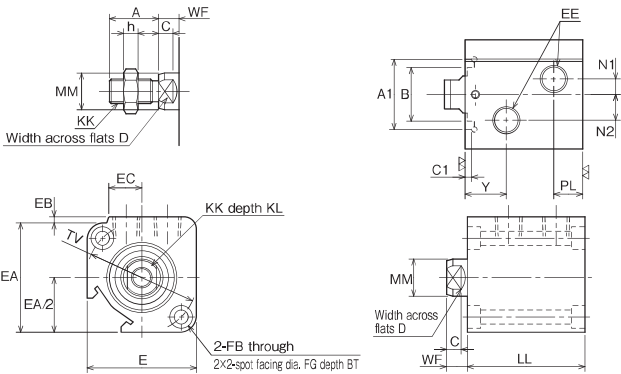
●Bore φ20 and φ25

●Male thread type



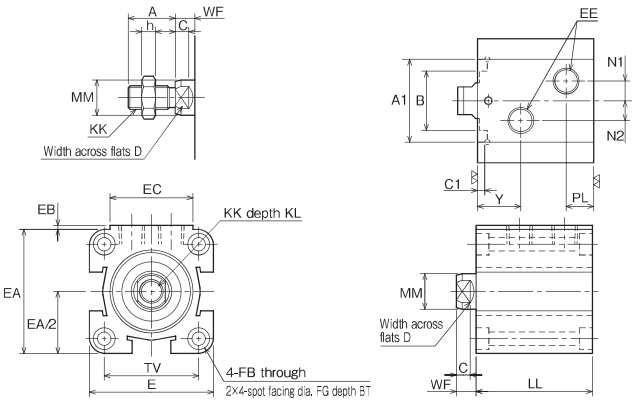
●Bore φ32

●Male thread type



●Bore φ40 to φ63

●Male thread type



35S-1/THS35 Bore CAD/DATA is available.



Dimensional Table

Symbol Bore	A	A1	B	BT	C	C1	D	E	EA	EB	EC	EE	FB	FG	h	KK		KL
																Female thread type	Male thread type	
φ20	20	φ22H8	—	6.5	6	2	10	□43	—	—	—	Rc1/8	φ6.8	φ11	6	M8×1.25	M10×1.25	13
φ25	20	φ27H8	—	6.5	6	2	10	□47	—	—	—	Rc1/8	φ6.8	φ11	6	M8×1.25	M10×1.25	13
φ32	24	φ34H8	φ26	6.5	7	3	14	53	53	3	16	Rc1/4	φ6.8	φ11	7	M12×1.75	M12×1.25	18
φ40	24	φ42H8	φ30	6.5	7	3.5	14	63	63	2	42	Rc1/4	φ6.8	φ11	7	M12×1.75	M12×1.25	18
φ50	36	φ52H8	φ36	8.6	7	3.5	19	74	74	2	42	Rc1/4	φ9	φ14	11	M16×2	M18×1.5	20
φ63	36	φ65H8	φ42	10.8	7	4.5	19	90	90	2	42	Rc1/4	φ11	φ17.5	11	M16×2	M18×1.5	20

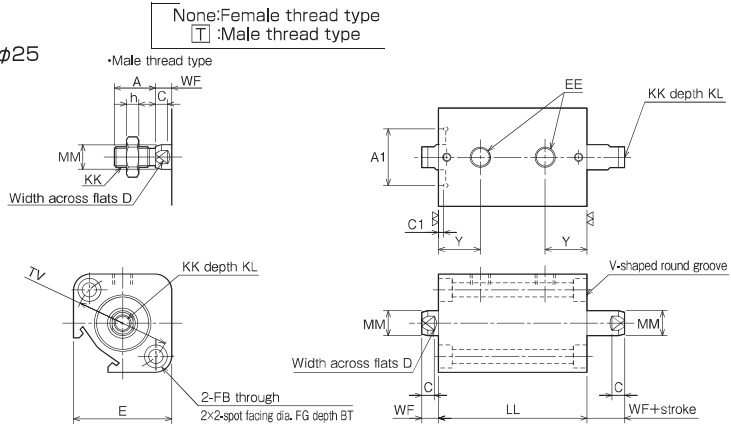
Symbol Bore	LL															MM	N1	N2	PL	TV	WF	Y
	5	10	15	20	25	30	35	40	45	50	60	70	80	90	100							
φ20	57	57	57	62	67	72	77	82	87	92	—	—	—	—	—	φ12	—	—	12	40	8	20
φ25	57	57	57	62	67	72	77	82	87	92	102	—	—	—	—	φ12	—	—	12	45	8	20
φ32	52	57	62	67	72	77	82	87	92	97	107	117	127	—	—	φ18	7.5	12.5	14	54	10	20
φ40	54	59	64	69	74	79	84	89	94	99	109	119	129	139	149	φ18	10	10	14	□48	10	22
φ50	61	66	71	76	81	86	91	96	101	106	116	126	136	146	156	φ22	10	10	15	□55	10	25
φ63	66	71	76	81	86	91	96	101	106	111	121	131	141	151	161	φ22	10	10	15	□68	10	27

Note) ●The tolerance of MM is f8.

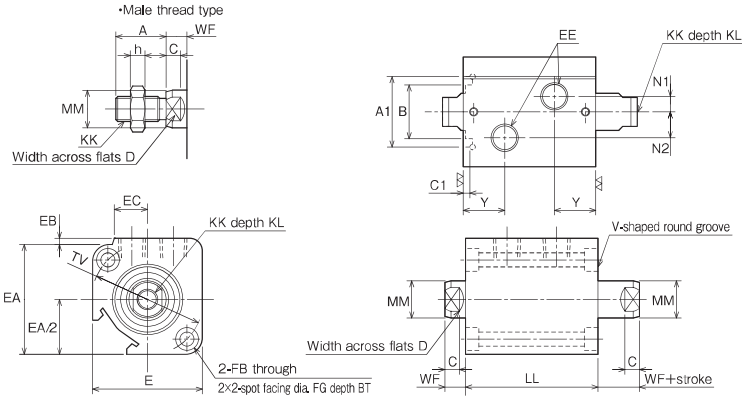
SD

35S-1D 6 SD Bore N Stroke T

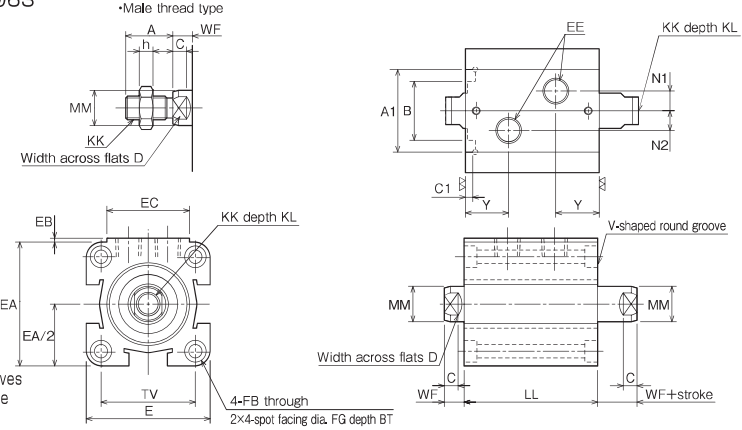
- Bore $\phi 20$ and $\phi 25$



- Bore $\phi 32$



- Bore $\phi 40$ to $\phi 63$



- The surface without V-shaped round grooves on the end face is the mounting surface.

35S-1/THS35 Bore is available. CAD/DATA



Dimensional Table

Symbol Bore	A	A1	B	BT	C	C1	D	E	EA	EB	EC	EE	FB	FG	h	KK		KL
																Female thread type	Male thread type	
φ20	20	φ22H8	—	6.5	6	2	10	□43	—	—	—	Rc1/8	φ6.8	φ11	6	M8×1.25	M10×1.25	13
φ25	20	φ27H8	—	6.5	6	2	10	□47	—	—	—	Rc1/8	φ6.8	φ11	6	M8×1.25	M10×1.25	13
φ32	24	φ34H8	φ26	6.5	7	3	14	53	53	3	16	Rc1/4	φ6.8	φ11	7	M12×1.75	M12×1.25	18
φ40	24	φ42H8	φ30	6.5	7	3.5	14	63	63	2	42	Rc1/4	φ6.8	φ11	7	M12×1.75	M12×1.25	18
φ50	36	φ52H8	φ36	8.6	7	3.5	19	74	74	2	42	Rc1/4	φ9	φ14	11	M16×2	M18×1.5	20
φ63	36	φ65H8	φ42	10.8	7	4.5	19	90	90	2	42	Rc1/4	φ11	φ17.5	11	M16×2	M18×1.5	20

Symbol Bore	LL																MM	N1	N2	TV	WF	Y
	5	10	15	20	25	30	35	40	45	50	60	70	80	90	100							
φ20	66	66	66	71	76	81	86	91	96	101	—	—	—	—	—	φ12	—	—	40	8	20	
φ25	66	66	66	71	76	81	86	91	96	101	111	—	—	—	—	φ12	—	—	45	8	20	
φ32	59	64	69	74	79	84	89	94	99	104	114	124	134	—	—	φ18	7.5	12.5	54	10	20	
φ40	63	68	73	78	83	88	93	98	103	108	118	128	138	148	158	φ18	10	10	□48	10	22	
φ50	72	77	82	87	92	97	102	107	112	117	127	137	147	157	167	φ22	10	10	□55	10	25	
φ63	79	84	89	94	99	104	109	114	119	124	134	144	154	164	174	φ22	10	10	□68	10	27	

Note) • The tolerance of MM is f8.

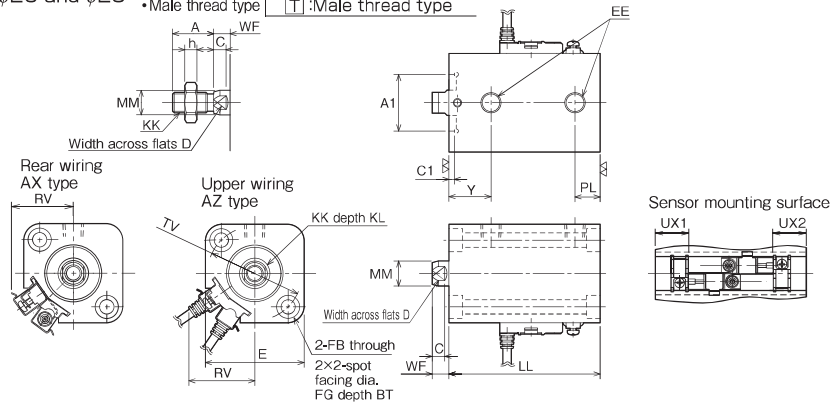
SD

35S-1R 6 SD Bore N Stroke — Sensor symbol Sensor quantity

• Bore $\phi 20$ and $\phi 25$

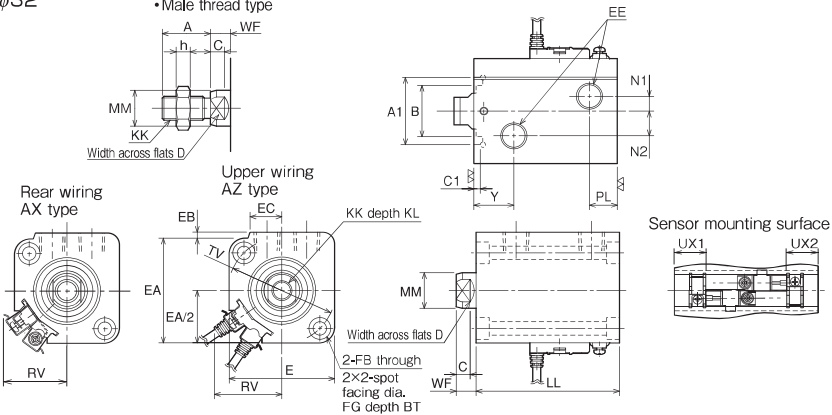
• Male thread type

□: Female thread type
T: Male thread type



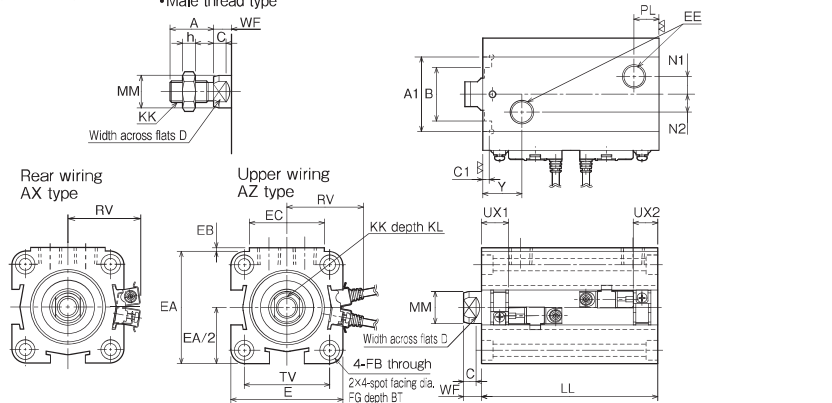
• Bore $\phi 32$

• Male thread type



• Bore $\phi 40$ to $\phi 63$

• Male thread type



CAD/DATA
35S-1/THS35 Bore is available.



General purpose type

Dimensional Table

Symbol	Bore	A	A1	B	BT	C	C1	D	E	EA	EB	EC	EE	FB	FG	h	KK		KL
																	Female thread type	Male thread type	
	$\phi 20$	20	$\phi 22H8$	—	6.5	6	2	10	□43	—	—	—	Rc1/8	$\phi 6.8$	$\phi 11$	6	M8×1.25	M10×1.25	13
	$\phi 25$	20	$\phi 27H8$	—	6.5	6	2	10	□47	—	—	—	Rc1/8	$\phi 6.8$	$\phi 11$	6	M8×1.25	M10×1.25	13
	$\phi 32$	24	$\phi 34H8$	$\phi 26$	6.5	7	3	14	53	53	3	16	Rc1/4	$\phi 6.8$	$\phi 11$	7	M12×1.75	M12×1.25	18
	$\phi 40$	24	$\phi 42H8$	$\phi 30$	6.5	7	3.5	14	63	63	2	42	Rc1/4	$\phi 6.8$	$\phi 11$	7	M12×1.75	M12×1.25	18
	$\phi 50$	36	$\phi 52H8$	$\phi 36$	8.6	7	3.5	19	74	74	2	42	Rc1/4	$\phi 9$	$\phi 14$	11	M16×2	M18×1.5	20
	$\phi 63$	36	$\phi 65H8$	$\phi 42$	10.8	7	4.5	19	90	90	2	42	Rc1/4	$\phi 11$	$\phi 17.5$	11	M16×2	M18×1.5	20

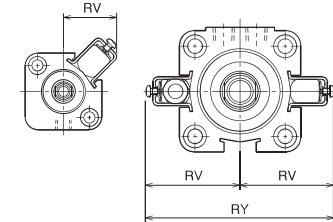
Symbol	LL																MM	N1	N2	PL	RV		TV	UX1	UX2	WF	Y																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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Notes) • The tolerance of MM is f8.
• Dimension UX is for reference only.
For details, refer to the sensor mountable minimum stroke table.

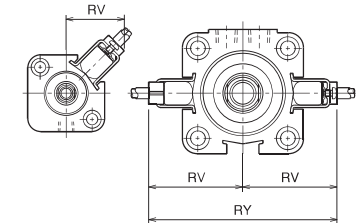
Cutting oil proof type

Dimensions when WR or WS sensors are mounted

• Rear wiring
WR525 (reed sensor)
WS235-1 (solid state sensor)



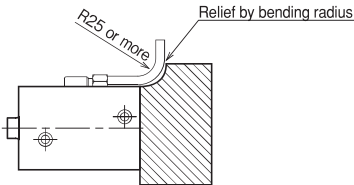
• Upper wiring
WR535 (reed sensor)
WS245-1 (solid state sensor)



Dimensional Table

Bore	RV		RY		UX1		UX2	
	Rear wiring	Upper wiring	Rear wiring	Upper wiring	Reed sensor	Solid state sensor	Reed sensor	Solid state sensor
$\phi 20$	31	35	—	—	13	16	12	15
$\phi 25$	33	37	—	—	12	16	12	15
$\phi 32$	36	40	—	—	18	20	16	18
$\phi 40$	52	54	103	107	19	20	16	18
$\phi 50$	58	60	115	119	24	25	19	22
$\phi 63$	66	68	132	135	25	28	21	25

Note) Ensure that the bending radius of the flexible tube is R25 or more. If the bending radius is smaller, the wire may be broken.

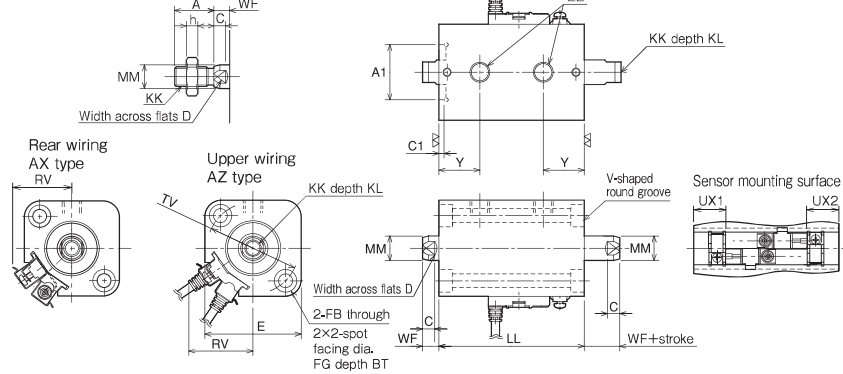


If the sensor cannot be mounted as shown above, use the upper wiring type.

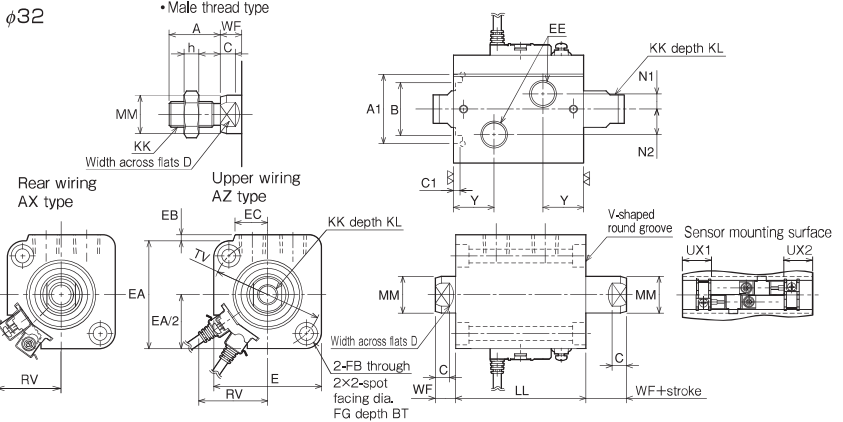
SD

35S-1RD 6 SD Bore N Stroke — Sensor symbol Sensor quantity

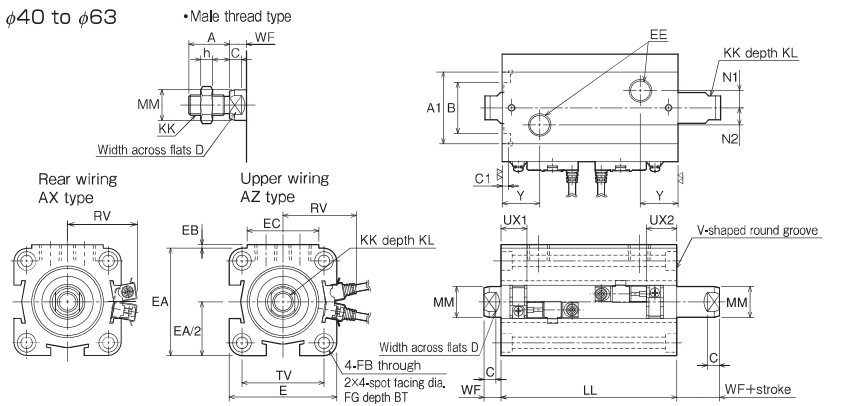
- Bore φ20 and φ25 • Male thread type



- Bore φ32



- Bore φ40 to φ63



• The surface without V-shaped round grooves on the end face is the mounting surface.
The side without V-shaped round grooves on the end face corresponds to UX1.

CAD/DATA
35S-1/THS35 is available.

General purpose type

Dimensional Table

Symbol Bore	A	A1	B	BT	C	C1	D	E	EA	EB	EC	EE	FB	FG	h	KK		KL
																Female thread type	Male thread type	
φ20	20	φ22H8	—	6.5	6	2	10	□43	—	—	—	Rc1/8	φ6.8	φ11	6	M8×1.25	M10×1.25	13
φ25	20	φ27H8	—	6.5	6	2	10	□47	—	—	—	Rc1/8	φ6.8	φ11	6	M8×1.25	M10×1.25	13
φ32	24	φ34H8	φ26	6.5	7	3	14	53	53	3	16	Rc1/4	φ6.8	φ11	7	M12×1.75	M12×1.25	18
φ40	24	φ42H8	φ30	6.5	7	3.5	14	63	63	2	42	Rc1/4	φ6.8	φ11	7	M12×1.75	M12×1.25	18
φ50	36	φ52H8	φ36	8.6	7	3.5	19	74	74	2	42	Rc1/4	φ9	φ14	11	M16×2	M18×1.5	20
φ63	36	φ65H8	φ42	10.8	7	4.5	19	90	90	2	42	Rc1/4	φ11	φ17.5	11	M16×2	M18×1.5	20

Symbol	LL																MM	N1	N2	RV		TV	UX1	UX2	WF	Y																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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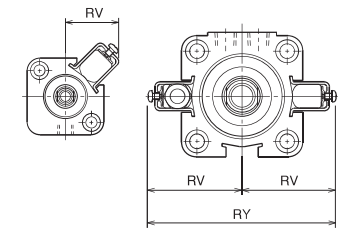
Notes) • The tolerance of MM is f8.
• Dimension UX is for reference only.
For details, refer to the sensor mountable minimum stroke table.

Cutting oil proof type

Dimensions when WR or WS sensors are mounted

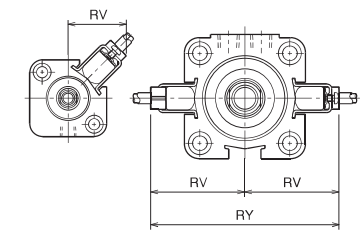
- Rear wiring

WR525(reed sensor)
WS235-1 (solid state sensor)



- Upper wiring

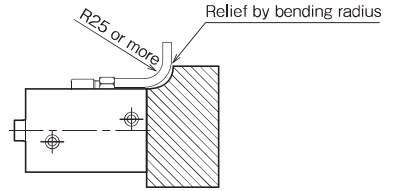
WR535(reed sensor)
WS245-1 (solid state sensor)



Dimensional Table

Bore	RV		RY		UX1		UX2	
	Rear wiring	Upper wiring	Rear wiring	Upper wiring	Reed sensor	Solid state sensor	Reed sensor	Solid state sensor
φ20	31	35	—	—	13	16	21	24
φ25	33	37	—	—	12	16	21	24
φ32	36	40	—	—	18	20	23	25
φ40	52	54	103	107	19	20	25	27
φ50	58	60	115	119	24	25	30	33
φ63	66	68	132	135	25	28	34	38

Note) Ensure that the bending radius of the flexible tube is R25 or more.
If the bending radius is smaller, the wire may be broken.



If the sensor cannot be mounted as shown above,
use the upper wiring type.

