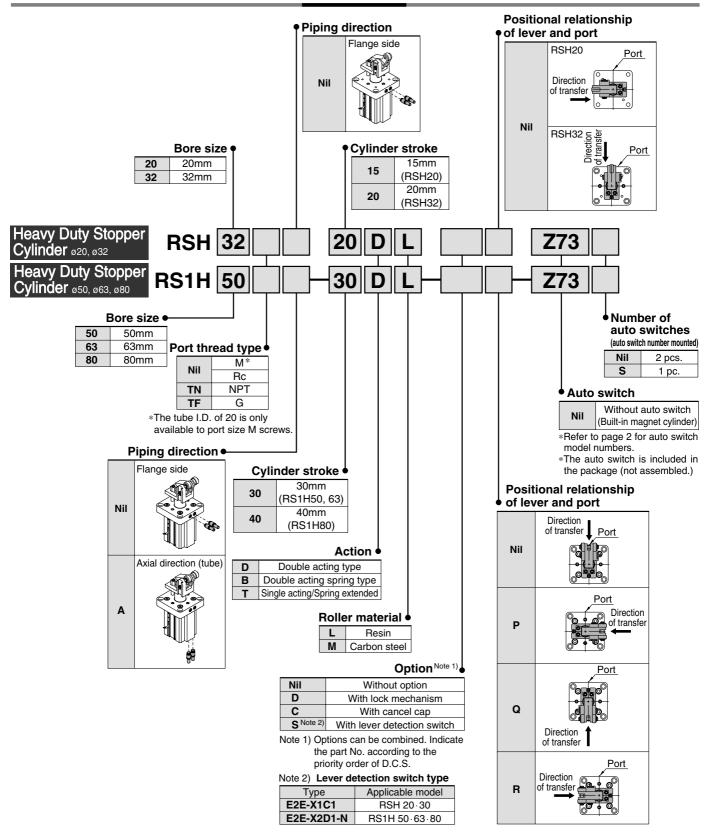


How to Order



Heavy Duty Stopper Cylinder Series RSH/RS1H

Applicable auto switches/Refer to pages 10 through 15 for detailed auto switch specifications.

			light			Load vo	ltage	Auto swite	h models	Lead wir	re lengt	h (m) *			
Туре	Special function	Electrical entry	Indicator light	Wiring (output)		DC	AC	Electrical en	try direction	0.5	3	5	Applica	able load	
		· · · · · · · · · · · · · · · · · · ·	Indic			DC	AC	Perpendicular	In-line	(Nil)	(L)	(Z)			
itch			Yes	3-wire (NPN equiv)	—	5V	—	_	Z76		•	-	IC circuit	_	
Reed switch	—	Grommet	100	2-wire	24V	12V	100V	—	Z73	\bullet	\bullet	\bullet	—	Relay,	
Ree			No	2-wire	240	5V, 12V	100V or less	_	Z80			-	IC circuit	PLC	
				3-wire (NPN)	5V. 12V			Y69A	Y59A		•	0	IC		
tch	—			3-wire (PNP)		50, 120		Y7PV	Y7P			0	circuit		
switch				2-wire		12V		Y69B	Y59B	\bullet	•	0	—	Relay,	
state	Diagnostic indication	Grommet	Yes	3-wire (NPN)	24V	5V, 12V	—	Y7NWV	Y7NW	\bullet	•	0	IC	PLC	
d st	(2-color display)			3-wire (PNP)		50, 120		Y7PWV	Y7PW		•	0	circuit		
Solid				2-wire		12V		Y7BWV	Y7BW		•	0	_		
0,	Water resistance (2-color display)			Z-wire		120		_	Y7BA	_	•	0			

*Lead wire length symbols: 0.5m·······Nil (Example) Y69B 3m········L (Example) Y69BL 5m······Z (Example) Y69BZ

**Solid state switches marked with a " \bigcirc " symbol are produced upon receipt of order.



RSH



RS1H

Specifications

	Model	R	SH		RS1H				
Bore size ((mm)	20	32	50	63	80			
Action		Double actir	ig, Double acti	ng spring, Sing	gle acting (Spr	ing extended)			
Style of roo	d end		Lever with b	uilt-in shock a	bsorber type				
Fluid				Air					
Proof pres	sure			1.5MPa					
Max. opera	ating pressure	1.0MPa							
Ambient a	nd fluid temperature	-10 to 60°C (with no condensation)							
Lubrication	ı	Not required (non-lube)							
Cushion			F	Rubber bumpe	r				
Stroke leng	gth tolerance			+1.4					
Mounting		Flange							
	For use in Japan	M5 x 0.8	Rc 1/8	Rc 1/8	Rc 1/4	Rc 1/4			
Port size For use in U.S.A.		-	NPT 1/8	NPT 1/8	NPT 1/4	NPT 1/4			
	For use in Europe	- G 1/8 G 1/8 G 1/4 G							
Auto switc	h	Can be installed							

Bore size, Standard strokes

(n	n	r	γ		
۰.	• •		•	•	•	

Model	Bore size (mm)	Standard stroke
DEL	20	15
RSH	32	20
	50	30
RS1H	63	30
	80	40

Weights

(kg)

Action	Rod end configuration	Bore size (mm)	Weight
		20	0.41
Double acting type Double acting spring type Single acting spring extended	Laura and the baseling in	32	0.75
	Lever with built-in shock absorber type	50	2.03
		63	3.56
		80	6.33

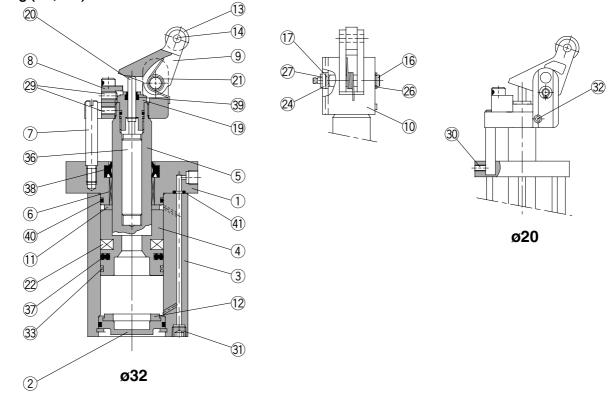


Series RSH/RS1H

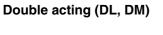
Construction

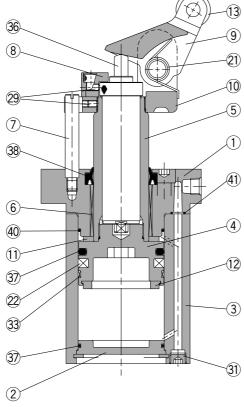
ø20, ø32

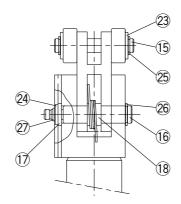
Double acting (DL, DM)



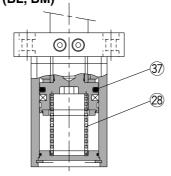
ø50, ø63, ø80



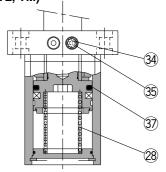




Double acting spring type (BL, BM)



Single acting spring extended (TL, TM)



SMC \$

Construction

Parts list (Single acting)

2 Bottom plate Aluminium alloy Chroma 3 Cylinder tube Aluminium alloy Hard anod 4 Piston Aluminium alloy Chroma 5 Piston rod o20: Stainless steel Hard chromium elector 6 Bushing Bronze alloy Hard chromium elector 7 Guide rod Carbon steel Hard chromium elector 8 Stopper screw Stainless steel 9 9 Lever Carbon steel Nickel pla 10 Lever holder Carbon steel Nickel pla 11 Bumper A Urethane rubber				
2 Bottom plate Aluminium alloy Chromat 3 Cylinder tube Aluminium alloy Hard anod 4 Piston Aluminium alloy Chromat 5 Piston rod ø20: Stainless steel Hard chromium elect 6 Bushing Bronze alloy Hard chromium elect 7 Guide rod Carbon steel Hard chromium elect 8 Stopper screw Stainless steel Mickel pla 10 Lever holder Carbon steel Nickel pla 11 Bumper A Urethane rubber Inckel pla 12 Bumper B Urethane rubber Inckel pla 13 Roller Carbon steel Inclue 14 Spring pin Carbon steel Inclue 15 Roller pin Carbon steel Ø20, 32 o 16 Lever pin Carbon steel Ø20, 32 o 17 Ring A Aluminium alloy Clear anod 18 Ring B Aluminium alloy Clear anod 19 Adjustment dial Aluminium alloy Ø20, 32 o <t< th=""><th>No.</th><th>Description</th><th>Material</th><th>Note</th></t<>	No.	Description	Material	Note
3 Cylinder tube Aluminium alloy Hard anod 4 Piston Aluminium alloy Chromation 5 Piston rod e20: Stainless steel Hard chromium election 6 Bushing Bronze alloy Hard chromium election 7 Guide rod Carbon steel Hard chromium election 8 Stopper screw Stainless steel Nickel plating 9 Lever Carbon steel Nickel plating 10 Lever holder Carbon steel Nickel plating 11 Bumper A Urethane rubber Urethane rubber 12 Bumper B Urethane rubber Image: Steel of the steel	1	Rod cover	Aluminium alloy	Metallic painted
4 Piston Aluminium alloy Chroma 5 Piston rod ø20: Stainless steel Hard chromium elect 6 Bushing Bronze alloy Proze alloy 7 Guide rod Carbon steel Hard chromium elect 8 Stopper screw Stainless steel Nickel pla 9 Lever Carbon steel Nickel pla 10 Lever holder Carbon steel Nickel pla 11 Bumper A Urethane rubber	2	Bottom plate	Aluminium alloy	Chromate
5 Piston rod ø20: Stainless steel Hard chromium elect 6 Bushing Bronze alloy Hard chromium elect 7 Guide rod Carbon steel Hard chromium elect 8 Stopper screw Stainless steel Hard chromium elect 9 Lever Carbon steel Nickel pla 10 Lever holder Carbon steel Nickel pla 11 Bumper A Urethane rubber Image: Steel 12 Bumper B Urethane rubber Image: Steel 13 Roller Resin Image: Steel 14 Spring pin Carbon steel 020, 32 o 15 Roller pin Carbon steel 020, 32 o 16 Lever pin Carbon steel 020, 32 o 17 Ring A Aluminium alloy Clear anod 19 Adjustment dial Aluminium alloy 020, 32 o 21 Lever spring Stainless steel wire 020, 32 o 22 End rod Special steel 020, 32 o 21 Lever spring Stainless steel wire 020, 32 o	3	Cylinder tube	Aluminium alloy	Hard anodized
5 Piston rod ø32, ø50, ø63, ø80: Carbon steel Hard chromium elect 6 Bushing Bronze alloy France alloy 7 Guide rod Carbon steel Hard chromium elect 8 Stopper screw Stainless steel Nickel pla 10 Lever holder Carbon steel Nickel pla 11 Bumper A Urethane rubber Image: Steel 12 Bumper B Urethane rubber Image: Steel Image: Steel 13 Roller Resin -Image: Steel Image: Steel 14 Spring pin Carbon steel #20, 32 o Image: Steel 16 Lever pin Carbon steel #20, 32 o 17 Ring A Aluminium alloy Clear anod 18 Ring B Aluminium alloy 620, 32 o 20 End rod Special steel ø20, 32 o 21 Lever spring Stainless steel wire Nickel pla 22 Magnet Magnet Magnet Magnet 23 Flat washer Steel wire Nickel pla 24	4	Piston	Aluminium alloy	Chromate
6 Bushing Bronze alloy 7 Guide rod Carbon steel Hard chromium elect 8 Stopper screw Stainless steel Nickel pla 9 Lever Carbon steel Nickel pla 10 Lever holder Carbon steel Nickel pla 11 Bumper A Urethane rubber Image: Steel stee	F	Piston rod	ø20: Stainless steel	Hard abromium algotro plating
7 Guide rod Carbon steel Hard chromium elect 8 Stopper screw Stainless steel Nickel pla 9 Lever Carbon steel Nickel pla 10 Lever holder Carbon steel Nickel pla 11 Bumper A Urethane rubber			ø32, ø50, ø63, ø80: Carbon steel	riaid chiomium electro plating
8 Stopper screw Stainless steel 9 Lever Carbon steel Nickel pla 10 Lever holder Carbon steel Nickel pla 11 Bumper A Urethane rubber 12 Bumper B Urethane rubber 13 Roller Resin M 14 Spring pin Carbon steel #20, 32 o 15 Roller pin Carbon steel #20, 32 o 16 Lever pin Carbon steel #20, 32 o 17 Ring A Aluminium alloy Clear anod 18 Ring B Aluminium alloy #20, 32 o 20 End rod Special steel #20, 32 o 21 Lever spring Stainless steel wire #20, 32 o 22 Magnet Magnet #20, 32 o 23 Flat washer Steel wire Nickel pla 24 Flat washer Steel wire Nickel pla 25 C type snap ring for shaft Carbon tool steel #27 22 Hexagon socket head set screw Chrome molybdenum steel #20 onl	6	<u> </u>	Bronze alloy	
9LeverCarbon steelNickel pla10Lever holderCarbon steelNickel pla11Bumper AUrethane rubber12Bumper BUrethane rubber13RollerResin14Spring pinCarbon steel16Lever pinCarbon steel17Ring AAluminium alloy18Ring BAluminium alloy19Adjustment dialAluminium alloy20End rodSpecial steel21Lever springStainless steel wire22MagnetMagnet23Flat washerSteel wire24Flat washerSteel wire25C type snap ring for shaftCarbon tool steel26C type snap ring for shaftCarbon tool steel27C type snap ring for shaftCarbon tool steel28Return springPiano wire29Hexagon socket head sterewChrome molybdenum steel31Hexagon socket head plugChrome molybdenum steel33Wear ringResin34ElementBronze36Shock absorber—37Piston sealNBR38Rod sealNBR	7		Carbon steel	Hard chromium electro plating
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11Bumper AUrethane rubber12Bumper BUrethane rubber13RollerResin14Spring pinCarbon steel15Roller pinCarbon steel16Lever pinCarbon steel17Ring AAluminium alloy18Ring BAluminium alloy19Adjustment dialAluminium alloy20End rodSpecial steel21Lever springStainless steel wire22MagnetMagnet23Flat washerSteel wire24Flat washerSteel wire25C type snap ring for shaftCarbon tool steel26C type snap ring for shaftCarbon tool steel27C type snap ring for shaftCarbon tool steel28Return springPiano wire29Hexagon socket head set screwChrome molybdenum steel30Hexagon socket head set screwChrome molybdenum steel33Wear ringResin34ElementBronze36Shock absorber—37Piston sealNBR38Rod sealNBR	9		Carbon steel	Nickel plated
12 Bumper B Urethane rubber 13 Roller Resin -□□L 14 Spring pin Carbon steel 020, 32 o 15 Roller pin Carbon steel 020, 32 o 16 Lever pin Carbon steel 020, 32 o 17 Ring A Aluminium alloy Clear anod 18 Ring B Aluminium alloy Clear anod 19 Adjustment dial Aluminium alloy 020, 32 o 20 End rod Special steel 020, 32 o 21 Lever spring Stainless steel wire 020, 32 o 22 Magnet Magnet 020, 32 o 23 Flat washer Steel wire 020, 32 o 24 Flat washer Steel wire Nickel pla 25 C type snap ring for shaft Carbon tool steel 0 26 C type snap ring for shaft Carbon tool steel 0 27 C type snap ring for shaft Carbon tool steel 0 28 Return spring Piano wire 0 29 Hexagon socket head set screw	10		Carbon steel	Nickel plated
12 Relevation Resin -III 13 Roller Resin -III 14 Spring pin Carbon tool steel Ø20, 32 o 15 Roller pin Carbon steel Ø20, 32 o 16 Lever pin Carbon steel IIII 17 Ring A Aluminium alloy Clear anod 18 Ring B Aluminium alloy Ø20, 32 o 20 End rod Special steel Ø20, 32 o 20 End rod Special steel Ø20, 32 o 21 Lever spring Stainless steel wire Ø20, 32 o 22 Magnet Magnet Ø20, 32 o 23 Flat washer Magnet Ø20, 32 o 24 Lever spring Stainless steel wire Nickel pla 25 C type snap ring for shaft Carbon tool steel Ø20 26 C type snap ring for shaft Carbon tool steel Ø20 onl 30 Hexagon socket head set screw Chrome molybdenum steel Ø20 onl 31 Hexagon socket head set screw Chrome molybdenum steel Ø20 onl	11	•	Urethane rubber	
13 Roller Carbon steel -□□M 14 Spring pin Carbon tool steel Ø20, 32 o 15 Roller pin Carbon steel 16 16 Lever pin Carbon steel 17 17 Ring A Aluminium alloy Clear anod 18 Ring B Aluminium alloy Ø20, 32 o 20 End rod Special steel Ø20, 32 o 20 End rod Special steel Ø20, 32 o 21 Lever spring Stainless steel wire 22 22 Magnet Magnet 23 Flat washer Steel wire Nickel pla 23 Flat washer Steel wire Nickel pla 25 C type snap ring for shaft Carbon tool steel 26 C type snap ring for shaft Carbon tool steel 27 C type snap ring for shaft Carbon tool steel 29 Hexagon socket head set screw Chrome molybdenum steel Ø20 onl 31 Hexagon socket head set screw Chrome molybdenum steel Ø20 onl 32 Spring pin Carbon tool steel Ø20 onl	12	Bumper B	Urethane rubber	
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15Roller pinCarbon steel16Lever pinCarbon steel17Ring AAluminium alloyClear anod18Ring BAluminium alloyClear anod19Adjustment dialAluminium alloyø20, 32 o20End rodSpecial steelø20, 32 o21Lever springStainless steel wire22MagnetMagnet23Flat washerSteel wire24Flat washerSteel wire25C type snap ring for shaftCarbon tool steel26C type snap ring for shaftCarbon tool steel27C type snap ring for shaftCarbon tool steel28Return springPiano wire29Hexagon socket head set screwChrome molybdenum steel30Hexagon socket head set screwChrome molybdenum steel31Hexagon socket head plugChrome molybdenum steel32Spring pinCarbon tool steel33Wear ringResin34ElementBronze35Snap ringSteel wire36Shock absorber—37Piston sealNBR38Rod sealNBR38Rod sealNBR	10		Carbon steel	——————————————————————————————————————
16Lever pinCarbon steel17Ring AAluminium alloyClear anod18Ring BAluminium alloyClear anod19Adjustment dialAluminium alloyø20, 32 o20End rodSpecial steelø20, 32 o21Lever springStainless steel wire22MagnetMagnet23Flat washerSteel wireNickel pla24Flat washerSteel wireNickel pla25C type snap ring for shaftCarbon tool steel26C type snap ring for shaftCarbon tool steel27C type snap ring for shaftCarbon tool steel28Return springPiano wire29Hexagon socket head set screwChrome molybdenum steelø20 onl30Hexagon socket head plugChrome molybdenum steelø20 onl31Hexagon socket head plugChrome molybdenum steelø20 onl33Wear ringResin34ElementBronzeø20 is socket set set set set set set set set set s	14	Spring pin	Carbon tool steel	ø20, 32 only
17Ring AAluminium alloyClear anod18Ring BAluminium alloyClear anod19Adjustment dialAluminium alloyø20, 32 o20End rodSpecial steelø20, 32 o21Lever springStainless steel wire22MagnetMagnet23Flat washerSteel wireNickel pla24Flat washerSteel wireNickel pla25C type snap ring for shaftCarbon tool steel26C type snap ring for shaftCarbon tool steel27C type snap ring for shaftCarbon tool steel28Return springPiano wire29Hexagon socket head set screwChrome molybdenum steelø20 onl30Hexagon socket head set screwChrome molybdenum steel30Hexagon socket head plugChrome molybdenum steelø20 onl31Hexagon socket head plugChrome molybdenum steel33Wear ringResin34ElementBronzeø20 is socket screw35Snap ringSteel wire36Shock absorber-37Piston sealNBR38Rod sealNBR	15	Roller pin	Carbon steel	
18Ring BAluminium alloyClear anod19Adjustment dialAluminium alloyø20, 32 o20End rodSpecial steelø20, 32 o21Lever springStainless steel wire22MagnetMagnet23Flat washerSteel wire24Flat washerSteel wire25C type snap ring for shaftCarbon tool steel26C type snap ring for shaftCarbon tool steel27C type snap ring for shaftCarbon tool steel28Return springPiano wire29Hexagon socket head set screwChrome molybdenum steel30Hexagon socket head set screwChrome molybdenum steel30Hexagon socket head plugChrome molybdenum steel31Hexagon socket head plugChrome molybdenum steel33Wear ringResin34ElementBronze36Shock absorber—37Piston sealNBR38Rod sealNBR	16	Lever pin	Carbon steel	
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20End rodSpecial steelØ20, 32 o21Lever springStainless steel wireØ20, 32 o22MagnetMagnetImage: Constraint of the steel wireNickel pla23Flat washerSteel wireNickel pla24Flat washerSteel wireNickel pla25C type snap ring for shaftCarbon tool steelImage: Constraint of the steel wire26C type snap ring for shaftCarbon tool steelImage: Constraint of the steel wire29Hexagon socket head set screwChrome molybdenum steelØ20 onl30Hexagon socket head set screwChrome molybdenum steelØ20 onl31Hexagon socket head set screwChrome molybdenum steelØ20 onl31Hexagon socket head plugChrome molybdenum steelØ20 onl33Wear ringResinImage: Constraint of the steel wire34ElementBronzeØ20 is socket steel36Shock absorber—Image: Constraint of the steel wire38Rod sealNBRImage: Constraint of the steel wire38Rod sealNBRImage: Constraint of the steel wire	18	Ring B	Aluminium alloy	Clear anodized
20 Dependent event Dependent event 21 Lever spring Stainless steel wire 22 Magnet Magnet 23 Flat washer Steel wire Nickel pla 24 Flat washer Steel wire Nickel pla 25 C type snap ring for shaft Carbon tool steel 26 26 C type snap ring for shaft Carbon tool steel 27 27 C type snap ring for shaft Carbon tool steel 28 28 Return spring Piano wire 29 29 Hexagon socket head set screw Chrome molybdenum steel ø20 onl 30 Hexagon socket head set screw Chrome molybdenum steel ø20 onl 31 Hexagon socket head plug Chrome molybdenum steel ø20 onl 32 Spring pin Carbon tool steel ø20 onl 33 Wear ring Resin 34 Element Bronze ø20 is socket set set set set set set set set set s	19	Adjustment dial	Aluminium alloy	ø20, 32 only
22MagnetMagnet23Flat washerSteel wireNickel pla24Flat washerSteel wireNickel pla25C type snap ring for shaftCarbon tool steelImage: Carbon tool steel26C type snap ring for shaftCarbon tool steelImage: Carbon tool steel27C type snap ring for shaftCarbon tool steelImage: Carbon tool steel28Return springPiano wireImage: Carbon tool steel29Hexagon socket head set screwChrome molybdenum steelImage: Image: Oct and tool steel30Hexagon socket head set screwChrome molybdenum steelImage: Oct and tool steel31Hexagon socket head plugChrome molybdenum steelImage: Oct and tool steel32Spring pinCarbon tool steelImage: Oct and tool steel33Wear ringResinImage: Oct and tool steelImage: Oct and tool steel34ElementBronzeImage: Oct and tool steelImage: Oct and tool steel36Shock absorberImage: Oct and tool steelImage: Oct and tool steel38Rod sealNBRImage: Oct and tool steelImage: Oct and tool steel	20	End rod	Special steel	ø20, 32 only
23Flat washerSteel wireNickel pla24Flat washerSteel wireNickel pla25C type snap ring for shaftCarbon tool steel126C type snap ring for shaftCarbon tool steel127C type snap ring for shaftCarbon tool steel128Return springPiano wire129Hexagon socket head set screwChrome molybdenum steel030Hexagon socket head set screwChrome molybdenum steel020 onl31Hexagon socket head plugChrome molybdenum steel020 onl33Wear ringResin334ElementBronze020 is socket set36Shock absorber—338Rod sealNBR338Rod sealNBR1	21	Lever spring	Stainless steel wire	
24Flat washerSteel wireNickel plat25C type snap ring for shaftCarbon tool steelNickel plat26C type snap ring for shaftCarbon tool steel127C type snap ring for shaftCarbon tool steel128Return springPiano wire129Hexagon socket head set screwChrome molybdenum steelØ20 onl30Hexagon socket head set screwChrome molybdenum steelØ20 onl31Hexagon socket head plugChrome molybdenum steelØ20 onl32Spring pinCarbon tool steelØ20 onl33Wear ringResin134ElementBronzeØ20 is socket set35Snap ringSteel wire136Shock absorber—137Piston sealNBR138Rod sealNBR1	22	Magnet	Magnet	
25C type snap ring for shaftCarbon tool steel26C type snap ring for shaftCarbon tool steel27C type snap ring for shaftCarbon tool steel28Return springPiano wire29Hexagon socket head set screwChrome molybdenum steel30Hexagon socket head set screwChrome molybdenum steel31Hexagon socket head plugChrome molybdenum steel32Spring pinCarbon tool steel33Wear ringResin34ElementBronze35Snap ringSteel wire36Shock absorber—37Piston sealNBR38Rod sealNBR	23	Flat washer	Steel wire	Nickel plated
26 C type snap ring for shaft Carbon tool steel 27 C type snap ring for shaft Carbon tool steel 28 Return spring Piano wire 29 Hexagon socket head set screw Chrome molybdenum steel 30 Hexagon socket head set screw Chrome molybdenum steel 30 Hexagon socket head set screw Chrome molybdenum steel 31 Hexagon socket head plug Chrome molybdenum steel 32 Spring pin Carbon tool steel ø20 onl 33 Wear ring Resin 34 34 Element Bronze ø20 is socket set screw 36 Shock absorber — 37 38 Rod seal NBR 38	24	Flat washer	Steel wire	Nickel plated
27 C type snap ring for shaft Carbon tool steel 28 Return spring Piano wire 29 Hexagon socket head set screw Chrome molybdenum steel 30 Hexagon socket head set screw Chrome molybdenum steel 30 Hexagon socket head set screw Chrome molybdenum steel 31 Hexagon socket head plug Chrome molybdenum steel 32 Spring pin Carbon tool steel ø20 onl 33 Wear ring Resin 34 Element Bronze ø20 is socket set set set set set set set set set s	25			
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29Hexagon socket head set screwChrome molybdenum steel30Hexagon socket head set screwChrome molybdenum steelø20 onl31Hexagon socket head plugChrome molybdenum steelNickel pla32Spring pinCarbon tool steelø20 onl33Wear ringResin34ElementBronzeø20 is socket set35Snap ringSteel wire36Shock absorber—37Piston sealNBR38Rod sealNBR	27	C type snap ring for shaft	Carbon tool steel	
30Hexagon socket head set screwChrome molybdenum steelØ20 onl31Hexagon socket head plugChrome molybdenum steelNickel pla32Spring pinCarbon tool steelØ20 onl33Wear ringResin34ElementBronzeØ20 is socket so35Snap ringSteel wire36Shock absorber—37Piston sealNBR38Rod sealNBR	28		Piano wire	
31Hexagon socket head plugChrome molybdenum steelNickel pla32Spring pinCarbon tool steelø20 onl33Wear ringResin34ElementBronzeø20 is socket se35Snap ringSteel wire36Shock absorber—37Piston sealNBR38Rod sealNBR	29	Hexagon socket head set screw	Chrome molybdenum steel	
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33Wear ringResin34ElementBronzeø20 is socket so35Snap ringSteel wire36Shock absorber—37Piston sealNBR38Rod sealNBR	31	Hexagon socket head plug	Chrome molybdenum steel	Nickel plated
34ElementBronzeø20 is socket so35Snap ringSteel wire36Shock absorber—37Piston sealNBR38Rod sealNBR	32		Carbon tool steel	ø20 only
35 Snap ring Steel wire 36 Shock absorber — 37 Piston seal NBR 38 Rod seal NBR	33	Wear ring	Resin	
36 Shock absorber	34	Element	Bronze	ø20 is socket set screw
37 Piston seal NBR 38 Rod seal NBR	35		Steel wire	
38 Rod seal NBR	36			
	37	Piston seal	NBR	
NPR 200,00 a	38	Rod seal	NBR	
	39	Scraper	NBR	ø20, 32 only
40 Tube gasket NBR	40	Tube gasket	NBR	
41 O-ring NBR	41	O-ring	NBR	

Replacement parts: Seal kit

Bore size		Contents	
(mm)	Double acting	Double acting spring type	Contents
20	RSH20D-PS	RSH20	Set of items 37 to 41
32	RSH32D-PS	RSH32	in above table
50	RSH50D-PS	RSH50	Set of items 37 to 41
63	RSH63D-PS	RSH63	in above table
80	RSH80D-PS	RSH80	(not including 39)

*The seal kits for ø20 to ø32 consist of items 37 to 41 and those for ø50 to ø80 consist of items 37 to 41. Please order them by using the seal kit number corresponding to each bore size.

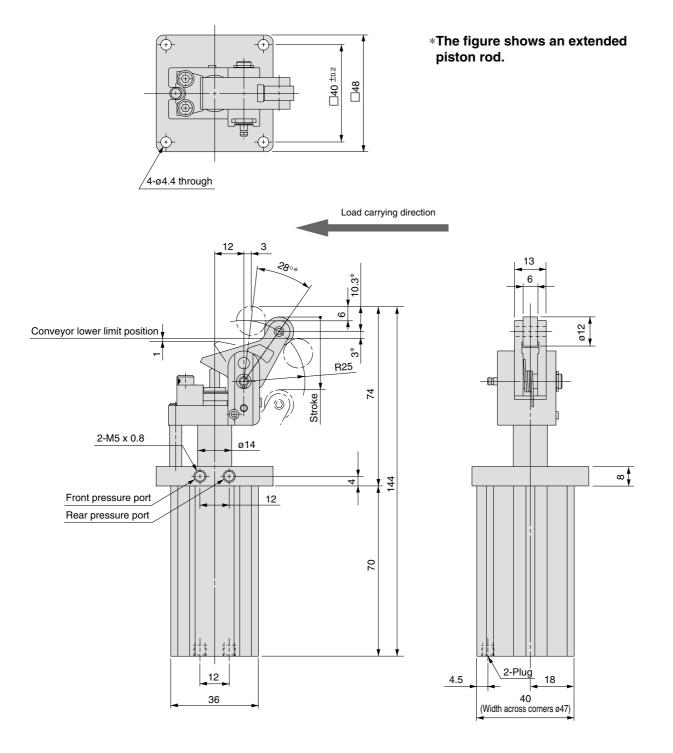
Replacement parts: Shock absorber

Bore size (mm)	Order no.
20	RSH-R20
32	RSH-R32
50	RS1H-R50
63	RS1H-R63
80	RS1H-R80

Series RSH/RS1H

Dimensions/Bore size: Ø20

RSH20-15



Note 1) The figure shows dimensions at the maximum energy absorption capacity.

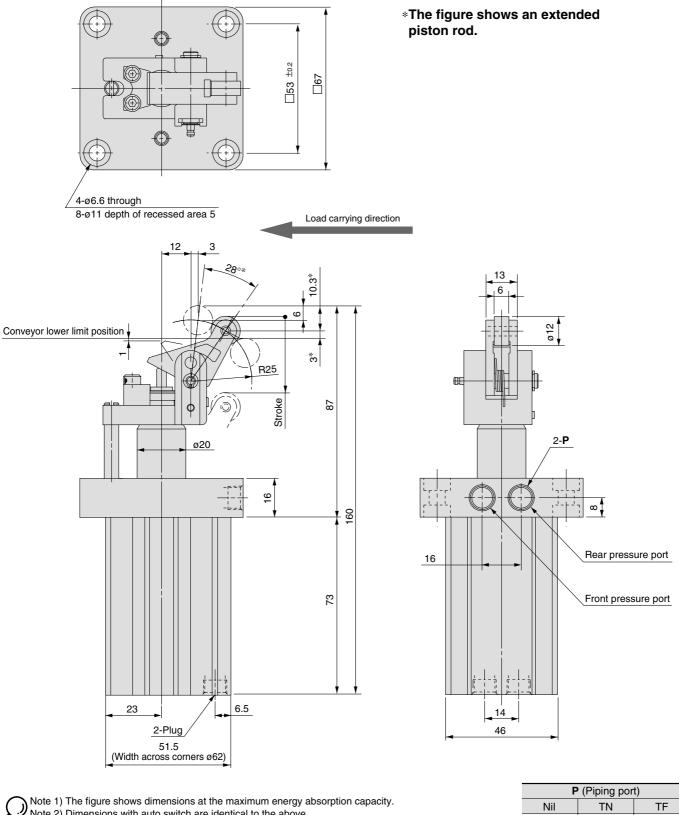
Note 2) Dimensions with auto switch are identical to the above.

Note 3) The dimensions marked with "*" vary according to adjustment of the shock absorber dial.

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Dimensions/Bore size: ø32

RSH32-20



Note 1) The figure shows dimensions at the maximum energy absorption capacity.

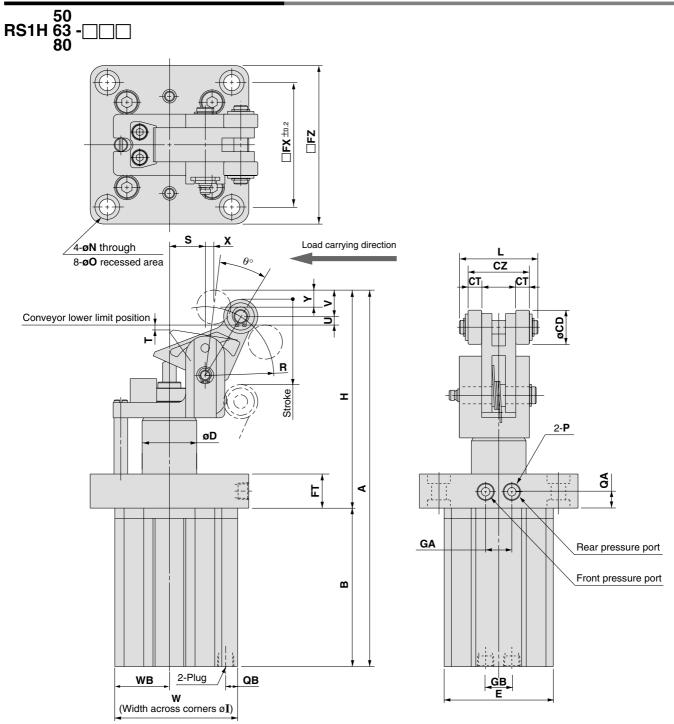
Note 2) Dimensions with auto switch are identical to the above. Note 3) The dimensions marked with "*" vary according to adjustment of the shock absorber dial.

P (Piping port)							
Nil	TN	TF					
Rc 1/8	NPT 1/8	G 1/8					

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Series **RSH/RS1H**

Dimensions/Bore size: Ø50, Ø63, Ø80



																				(mm)
Bore size (mm)	Stroke	Α	В	CD	СТ	CZ	D	E	FT	FX	FZ	GA	GB	Н	Width across corners I	L	Ν	0	QA	QB
50	30	221	93	20	8	36	32	64	20	73	93	16	16	128	85	45	9	14 depth 5	10	7
63	30	243.5	99	20	10	45	40	77	25	90	114	24	24	144.5	103	54	11	18 depth 6	12.5	8.5
80	40	299.5	128	25	10	45	50	98	25	110	138	24	35	171.5	132	56	13	20 depth 6	12.5	10
Bore size (mm)	Stroke	R	S	Т	U	V	W	WB	Х	Y	θ°			Mode			P (F	Piping port	t)	
50	30	40	21	2	5.5	15.5	72	32	5	10	24			wode		Nil		TN	Т	F
63	30	47	24.5	3.5	6.4	16	87.5	38.5	5	10	24			RS1H5	5 0	Rc 1/8 NPT 1/8		G	1/8	
80	40	54	31	3	6.7	19.4	109	49	6	12.5	23		1	RS1H6	6 3	Rc 1/4	1	NPT 1/4	G	1/4

Note 1) Dimensions with auto switch are identical to the above. Note 2) The figure shows an extended piston rod.

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RS1H80

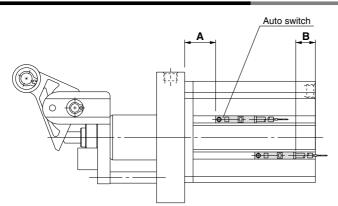
Rc 1/4

NPT 1/4

G 1/4

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Auto Switch Proper Mounting Position



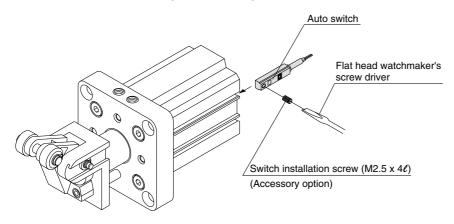
Auto switch proper mounting position

Auto switch models	D-Z7 D-Z80 D-Y59 D-Y7P D-Y7 W		D-Y69 D-Y7PV D-Y7 WV		D-Y7BAL	
Bore size (mm)	Α	В	Α	В	Α	В
20	18	8(6.5)	18	9.5	18	2
32	13.5	10.5(9)	13.5	12	13.5	4.5
50	22	12(10.5)	22	13.5	22	6
63	24.5	15.5(14)	24.5	17	24.5	9.5
80	37	22(20.5)	37	23.5	37	16

The values inside () are for D-Z73.

How to Install Auto Switch

To set the auto switch, insert the auto switch into the switch groove from the direction shown in the drawing to the below, After placing it in the mounting position, use a flat head watchmakers screw driver to tighten the mounting screw which is included.



Note) When adjusting the auto switch mounting screws, use a flat head watchmaker's screwdriver. The guideline of the tightening torque is 0.05 to 0.1 Nm.

Turn another 90° from the position where tightening is felt by hand.

Lever Detection Switch (Proximity Switch)

Proximity switch specifications/Maker: OMRON Co. Ltd.

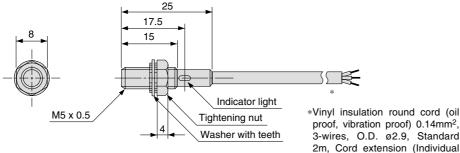
Model	E2E-X1C1	E2E-X2D1-N			
Applicable cylinder bore size	RSH20, 32	RS1H50, 63, 80			
Output type	Normally open				
Power supply voltage (Operating voltage range)	12 to 24VDC (10 to 30VDC), Ripple10% or less (P-P)				
Current consumption (Leakage current)	17mA or less	0.8mA or less			
Response frequency	3kHz	1.5kHz			
Control output (chest)	Open collector maximum 100mA	3 to 100mA			
Indicator light	Detection indication (Red LED)	Operation indication (Red LED), Set operation indication (Green LED)			
Ambient temperature	-25 to 70°C (No freezing)				
Operating ambient humidity	35 to 95% RH				
Residual voltage Note 1)	2V or less	3V or less			
Withstand voltage Note 2)	500VAC	1000VAC			
Vibration	Endurance 10 to 55 Hz, Duplex amplitude 1.5mm X,Y,Z direction each 2h				
Impact	Endurance 500m/s ² (approx. 50G), X, Y, Z direction each 10 times				
Enclosure	IEC standards IP67 (Immersion proof shape and oil proof shape by JEM standards)				

Note 1) At load current 100mA and cord length of 2m

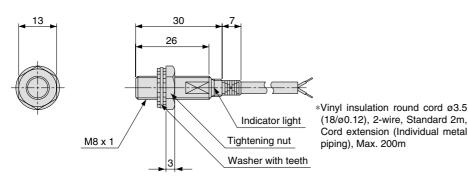
Note 2) Between case and whole charging part

Dimensions

E2E-X1C1 (For RSH20, 32)

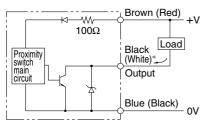


E2E-X2D1-N (For RS1H50, 63, 80)



Output Circuit

E2E-X1C1/3-wire



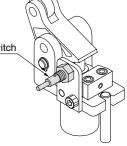
*Maximum 100mA (load current)

Mounting Position

●E2E-X1C1 (For RSH20, 32)

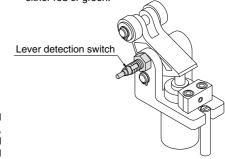
While holding the lever in the detection range of the switch, screw in the switch gradually until the indicator light (red) turns on. Then, screw the switch in further, halfway between the turn-on point and the lever.

Lever detection switch



●E2E-X2D1-N (For RS1H50, 63, 80)

While holding the lever in the detection range of the switch, screw in the switch until the indicator light (green) turns on. Then, give an additional half rotation of screw. After that, incline the lever by 90° and confirm that the indicator light is not on and does not show either red or green.



SMC

E2E-X2D1-N/2-wire

Proximity switch

main

metal piping), Max. 100m

Brown L(White) Load

Blue (Black)

+V

0V