

ST Series

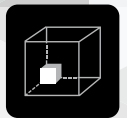
Interface Connectors for Portable Terminal Devices



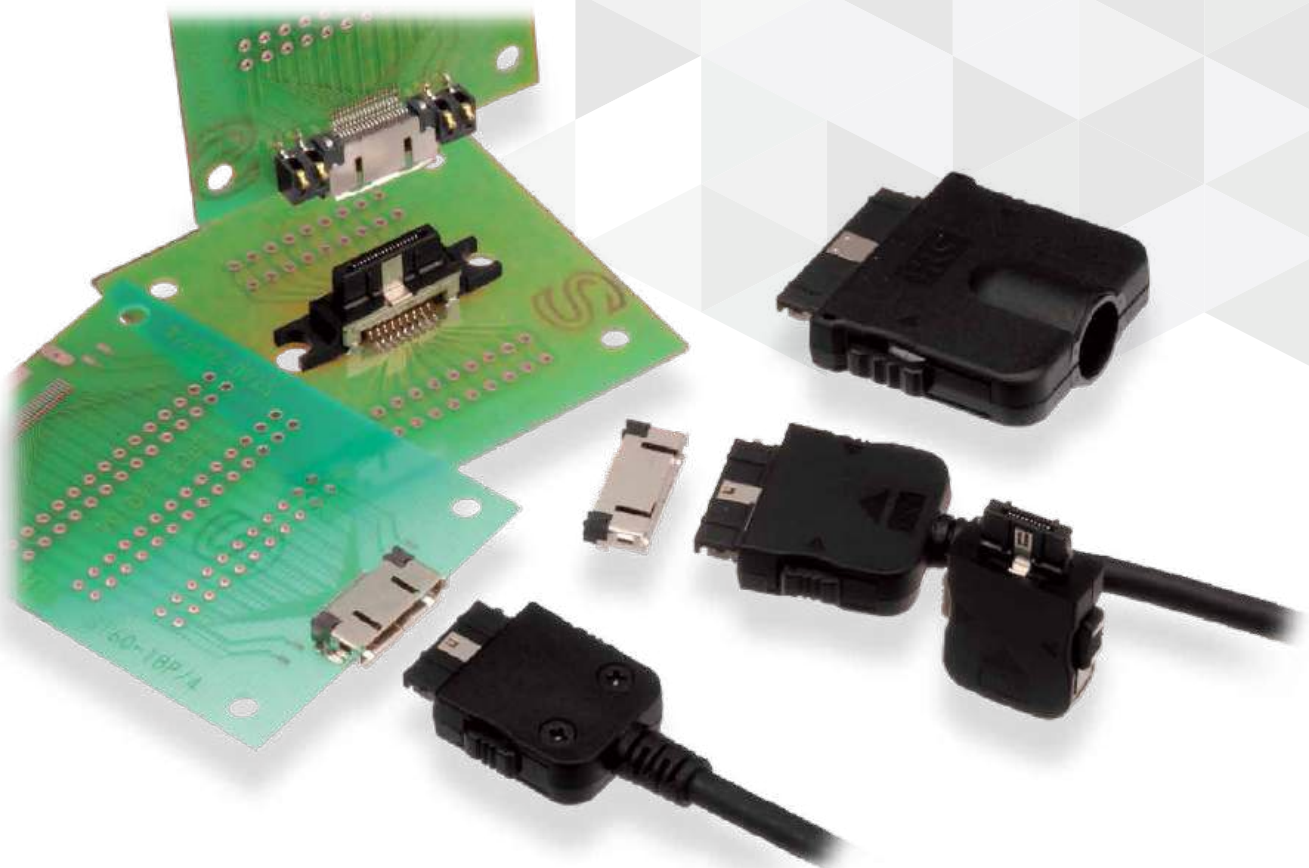
Light Weight



Low Profile



Space Saving



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Product Page
<https://www.hirose.com/en/product/series/ST>

Feb. 2026

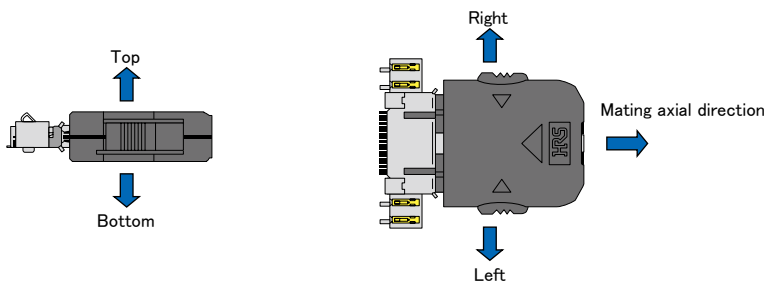
Overview

The ST Series interface connectors are specifically designed for use as Input/Output (I/O) connectors on portable information devices. They feature a unique structure with high strength which resists deformation and helps to prevent improper mating. 3.0 mm height and 0.5 mm contact pitch connector prevents EMI as well. The ST Series can be used in wide range of applications such as DSC, PDA, laptop PCs, cellular phones, etc.

Features

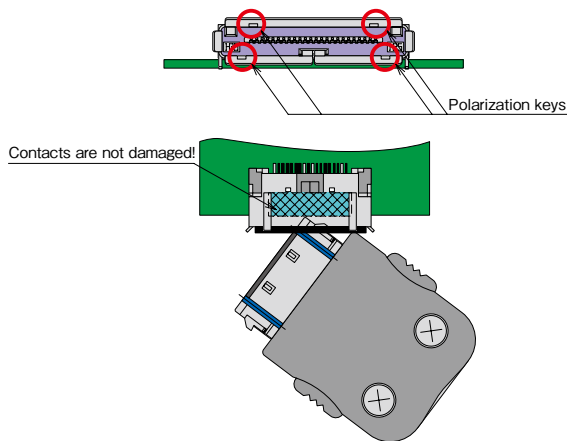
1. Strong locking mechanism

To assure continuous reliability of the connection in an unpredictable consumer environment, mated connectors will withstand pull force of 49N Max. applied in any direction.



2. Prevention against reversed or angle insertion

Multiple polarization keys will not allow incorrect insertion of the mating plug. In addition, contacts will not be damaged when the user attempts to insert only the corner of the mating plug because the receptacle signal portion does not touch the plug.

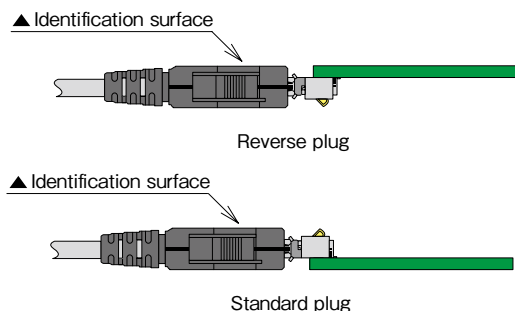


3. Optimal I/F for Small Devices

Plugs are 8 mm thick and 20 mm long (including covers), which is appropriate for small devices. Receptacles feature the low height of 3 mm and the contact pitch of 0.5 mm. Their small size saves valuable space and contributes to a smaller device set.

4. Multiple Variations

A wide variations is available for supporting different types of peripheral devices. Examples include shielded plugs for data communication, non-shielded plugs for power charge, reversed plug types as shown in Fig and cradle type connectors.



Plug variations

5. Cable Options

This connector uses a solder type termination, which allows you to apply flexible cable types.

Applications

Digital Still Cameras, Personal Digital Assistance, Notebook computers, Cellular phones, Smart phones and other portable devices requiring high reliability small size input/output connection.

Product Specifications

Rated Current (Note 1)	0.5A	Operating Temperature (Note 2)	-30 to +80°C
Rated Voltage	100V AC	Storage Temperature	-40 to +85°C

Note 1: Up to 1A can be supplied to any of the 4 pos.

Note 2: Includes temperature rise caused by current flow.

Characteristic	Specification	Conditions
Contact Resistance	60m Ω Max.	100mA DC
Insulation Resistance	1,000M Ω Min.	250V DC
Dielectric Withstanding Voltage	No flashover or insulation breakdown.	350V AC/ 1 minute
Mating/un-mating forces	Mating: 29.4N Max.	With corresponding connector.
Durability(mating/un-mating)	Contact resistance: 100m Ω Max.	10,000 cycles
Shock Resistance	No electrical discontinuity of 10 μ sec. Max.	Acceleration of 490 m/s ² , 11 ms duration, sine half-wave waveform, 3 cycles in each of the 3 axis.
Temperature Cycle	Contact resistance: 100m Ω Max. Insulation resistance: 1,000M Ω Min.	Temperature : -55°C → +5°C to +35°C → +85°C → +5°C to +35°C Time (Minutes): 30 → 5 → 30 → 5 5 cycles
Salt Spray	No corrosions	5 ± 1% salt water solution at 35 ± 3°C for 48 hours, after washing without salt, leave for 24 hours at room temperature
Lock Strength	Fully inserted and locked corresponding connector. No physical damage or electrical failure.	Pull force: 49N Max. applied in each of the 4 axis.
Vibration Resistance	No electrical discontinuity of 10 μ sec. Max.	Frequency: 10 to 55 Hz, single amplitude of 0.75mm, 2 hours, 3 axis.

Materials / Finish

● Receptacle and cradle

Component	Material	Finish	Remarks
Insulator	Thermoplastic compound, glass reinforced	Color: Black	UL94V-0
Contacts	Copper alloy	Contact area: Gold plated	-
Shield	Stainless steel	Tin alloy plating	-

● Plug

Component	Material	Finish	Remarks
Insulator	Thermoplastic compound, glass reinforced	Color: Black	UL94V-0
Contacts	Copper alloy	Contact area: Gold plated	-
Shield	Stainless steel	-	-
Cover	Thermoplastic compound, glass reinforced	-	UL94V-0

Product Number Structure

Refer to the chart below when determining the product specifications from the product number.
Please select from the product numbers listed in this catalog when placing orders.

■ Receptacle

ST 60 - 18 P (30)

① ② ④ ⑤ ⑦

■ Plug

ST 40 X - 18 S - CVR (30)

① ② ③ ④ ⑤ ⑥ ⑦

■ Cradle

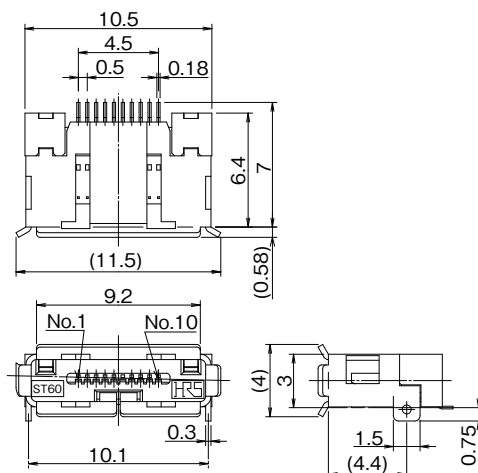
ST 80 X - 18 S (30)

① ② ③ ④ ⑤ ⑦

① Series Name	ST	④ Number of Pos.	
② Termination Type	60: Right angle SMT 40: Solder type 80: Cradle, vertical, SMT	⑤ Contact Type	P: Male contact (Receptacle) S: Female contact (Plug)
③ Shield	X: With shield Blank: Without shield	⑥ Plug Type	CV: Standard type, for top PCB mount CVR: Reverse type, for bottom PCB mount CV1: For larger diameter cables
		⑦ RoHS Compliant	(30)

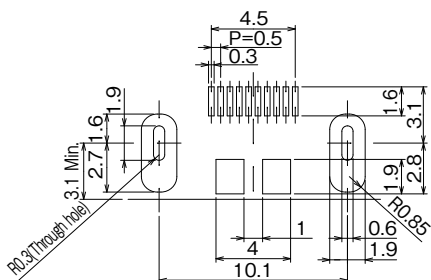
Receptacle

● 10 pos.

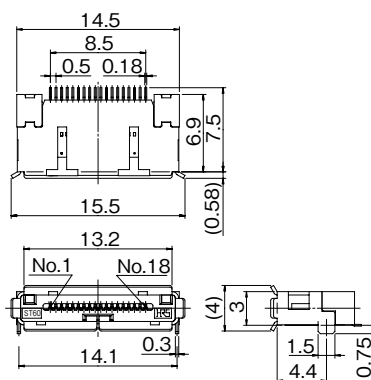


Part No.	HRS No.	RoHS
ST60-10P(30)	CL0241-0022-5-30	○

■ Recommended PCB mounting pattern(from attachment side)

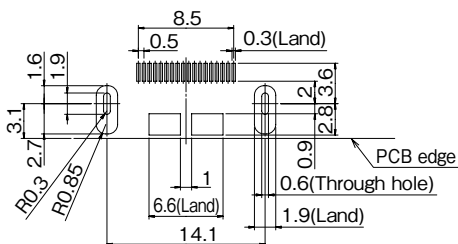


● 18 pos.

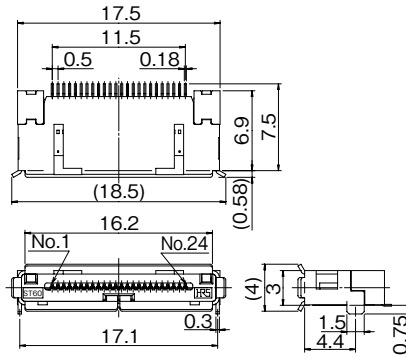


Part No.	HRS No.	RoHS
ST60-18P(30)	CL0241-0011-9-30	○

■ Recommended PCB mounting pattern(from attachment side)

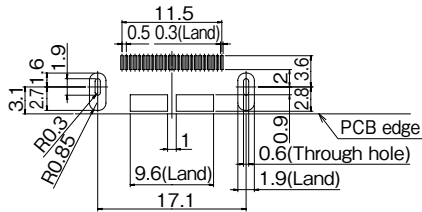


● 24 pos.

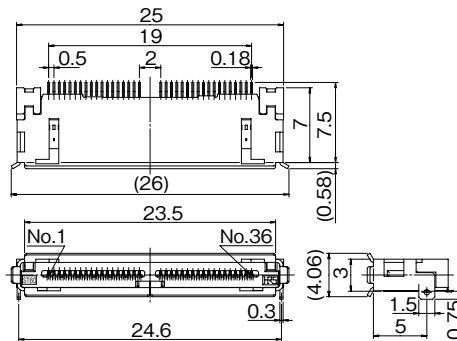
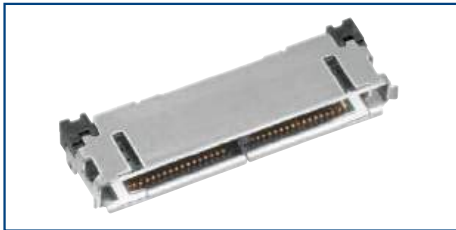


Part No.	HRS No.	RoHS
ST60-24P(30)	CL0241-0003-0-30	○

■ Recommended PCB mounting pattern(from attachment side)

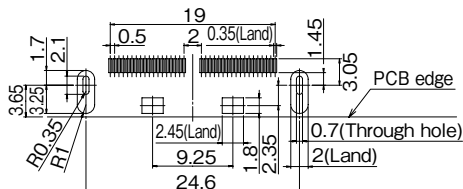


● 36 pos.

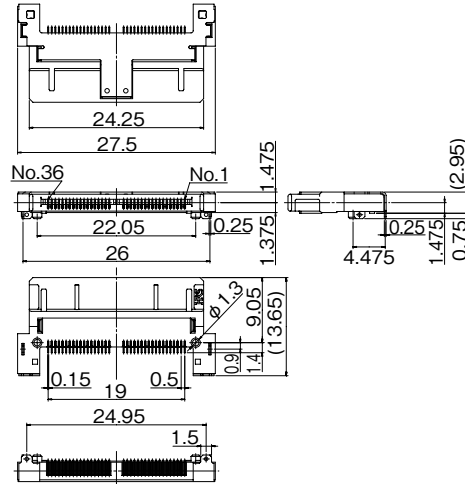
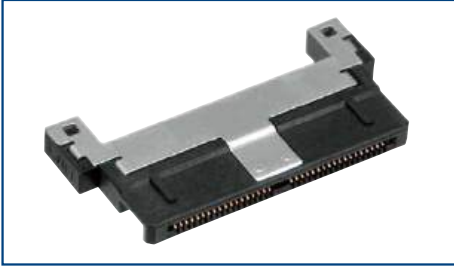


Part No.	HRS No.	RoHS
ST60-36P(30)	CL0241-0033-1-30	○

■ Recommended PCB mounting pattern(from attachment side)

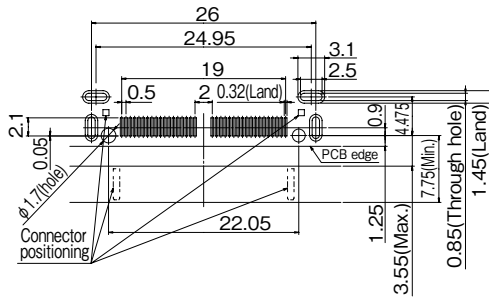


● 36 pos. (Horizontal type)

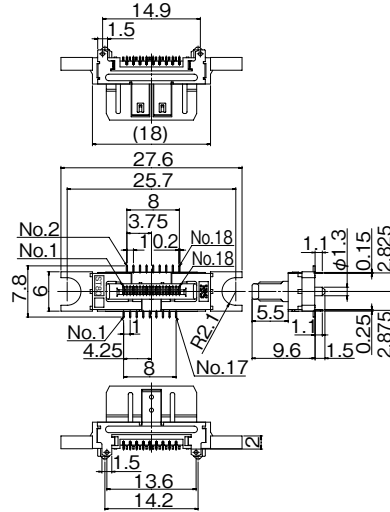
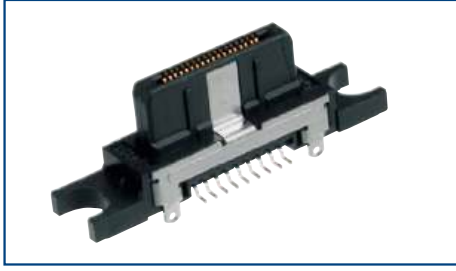


Part No.	HRS No.	RoHS
ST60X-36S(30)	CL0241-0035-7-30	○

■ Recommended PCB mounting pattern(from attachment side)

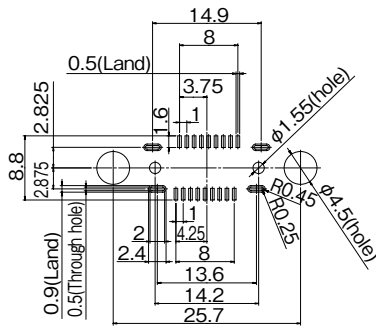


● 18 pos. (Vertical type)



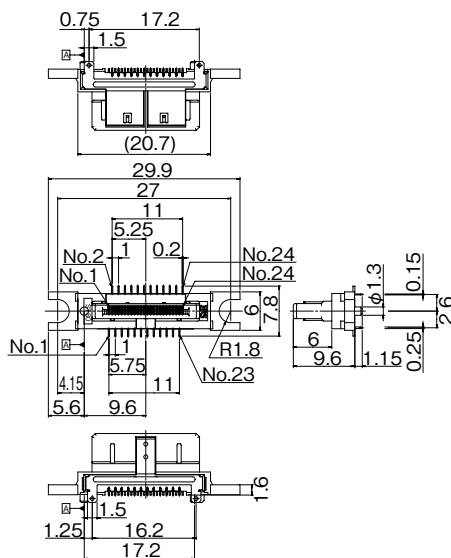
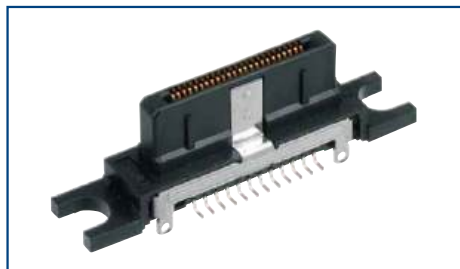
Part No.	HRS No.	RoHS
ST80X-18S(30)	CL0241-0020-0-30	○

■ Recommended PCB mounting pattern(from attachment side)



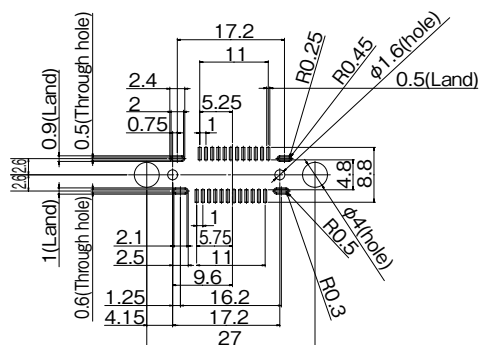
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● 24 pos. (Vertical type)



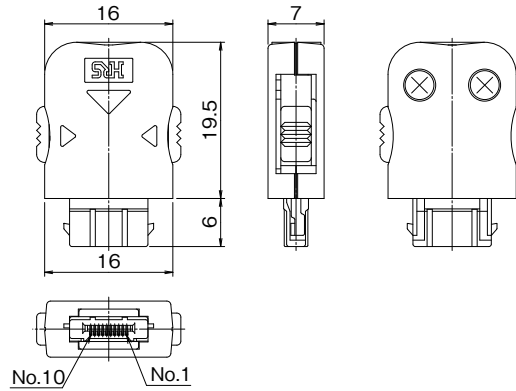
Part No.	HRS No.	RoHS
ST80X-24S(30)	CL0241-0037-2-30	○

■ Recommended PCB mounting pattern(from attachment side)



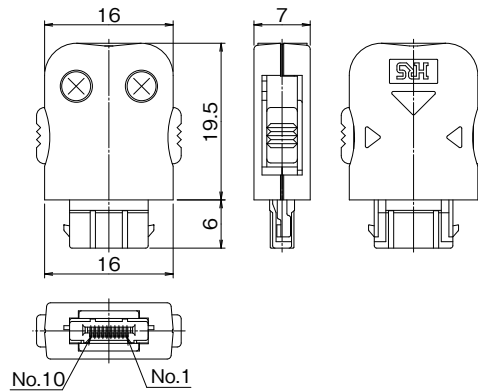
Plug

● 10 pos. (Non-shielded type)



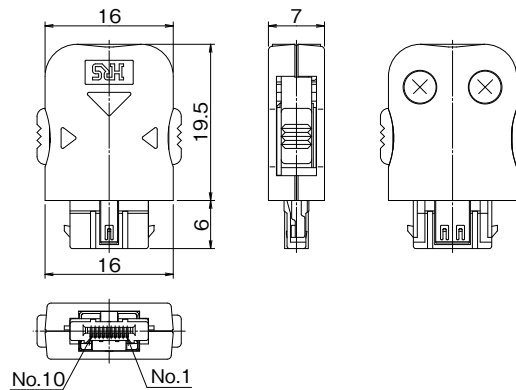
Part No.	HRS No.	RoHS
ST40-10S-CV(30)	CL0241-0021-2-30	○

● 10 pos. (Reverse, non-shielded type)



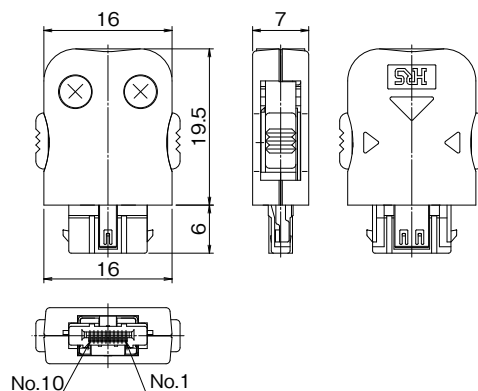
Part No.	HRS No.	RoHS
ST40-10S-CVR(30)	CL0241-0040-7-30	○

● 10 pos. (Shielded type)



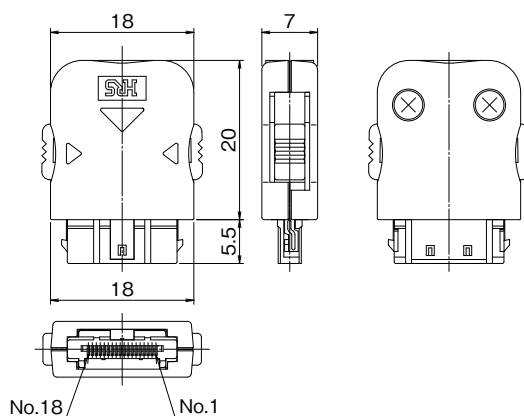
Part No.	HRS No.	RoHS
ST40X-10S-CV(30)	CL0241-0041-0-30	○

● 10 pos. (Reverse, shielded type)



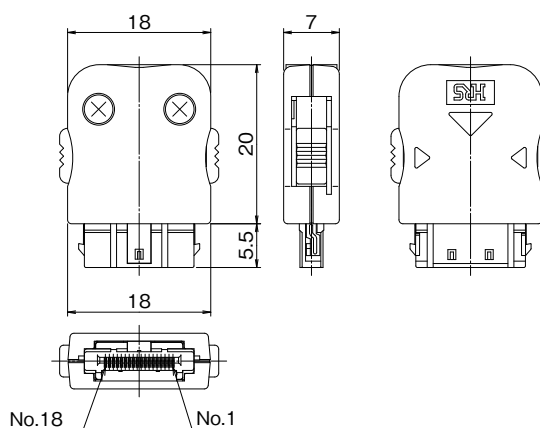
Part No.	HRS No.	RoHS
ST40X-10S-CVR(30)	CL0241-0029-4-30	○

● 18 pos. (Shielded type)



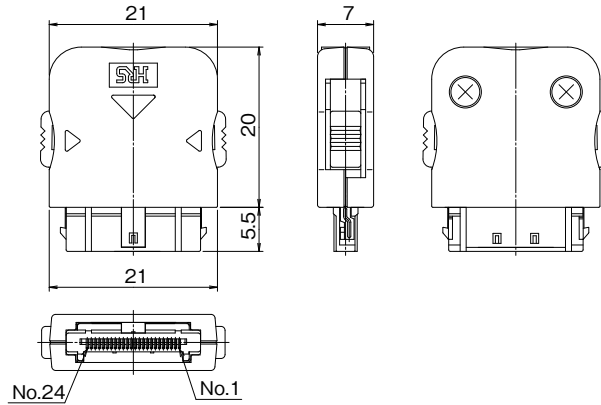
Part No.	HRS No.	RoHS
ST40X-18S-CV(30)	CL0241-0012-1-30	○

● 18 pos. (Reverse, shielded type)



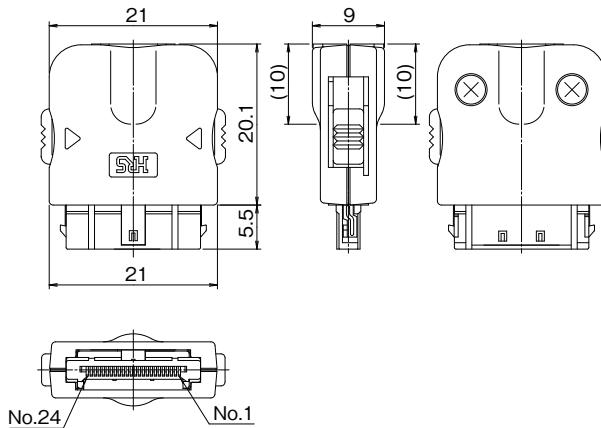
Part No.	HRS No.	RoHS
ST40X-18S-CVR(30)	CL0241-0016-2-30	○

● 24 pos. (Shielded type)



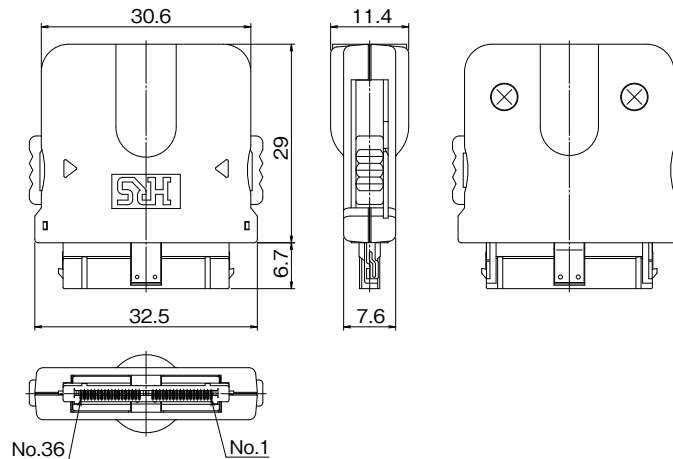
Part No.	HRS No.	RoHS
ST40X-24S-CV(30)	CL0241-0004-3-30	○

● 24 pos. (For larger diameter cables)



Part No.	HRS No.	RoHS
ST40X-24S-CV1(30)	CL0241-0023-8-30	○

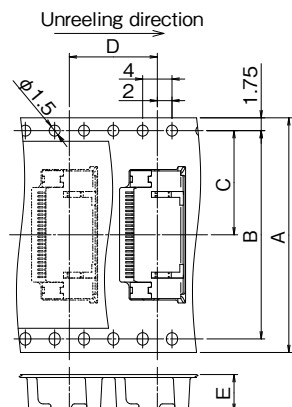
● 36 pos. (Shielded type)



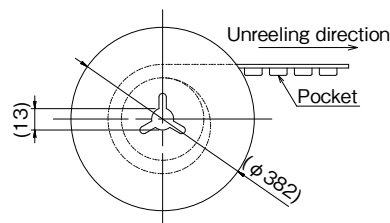
Part No.	HRS No.	RoHS
ST40X-36S-CV(30)	CL0241-0034-4-30	○

Packaging Specification

● Embossed Carrier Tape Dimensions

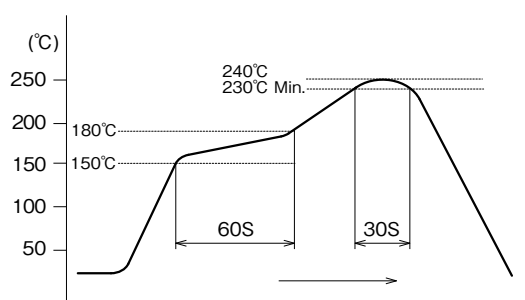


● Reel Dimensions



Part No.	A	B	C	D	E	Purchase Unit
ST60-10P (30)	24	-	11.5	12	5	1,500pcs per reel
ST60-18P (30)	24	-	11.5	12	5	1,500pcs per reel
ST60-24P (30)	32	28.4	14.2	12	5	1,500pcs per reel
ST60-36P (30)	44	40.4	20.2	12	5	1,500pcs per reel
ST80X-10S (30)	24	-	11.5	16	12.2	400pcs per reel
ST80X-18S (30)	44	40.4	20.2	16	12.7	400pcs per reel
ST80X-24S (30)	44	40.4	20.2	16	12.7	400pcs per reel
ST60X-18S (30)	32	28.4	14.2	20	4.95	900pcs per reel
ST60X-36S (30)	44	40.4	20.2	20	4.85	900pcs per reel

Recommended Temperature Profile



This measurement is performed on the contact lead section.
The temperature profile may vary due to external conditions such as the type of cream solder, manufacturer, and board size.
Please contact the solder manufacturer for their specifications.

While Taking into Consideration

Specifications mentioned in this catalog are reference values.

When considering to order or use this product, please review the Drawing and Product Specifications sheets.

Use an appropriate cable when using the connector in combination with cables.

If considering usage of a non-specified cable, please contact your sales representative.

If assembly process is done by jigs & tools which are not identified by Hirose, the warranty of the product may be affected.

If considering usage for below mentioned applications, please contact your sales representative.

In cases where the application will demand a high level of reliability, such as automotive, medical instruments, public infrastructure, aerospace/defense etc. Hirose must review before assurance of reliability can be given.