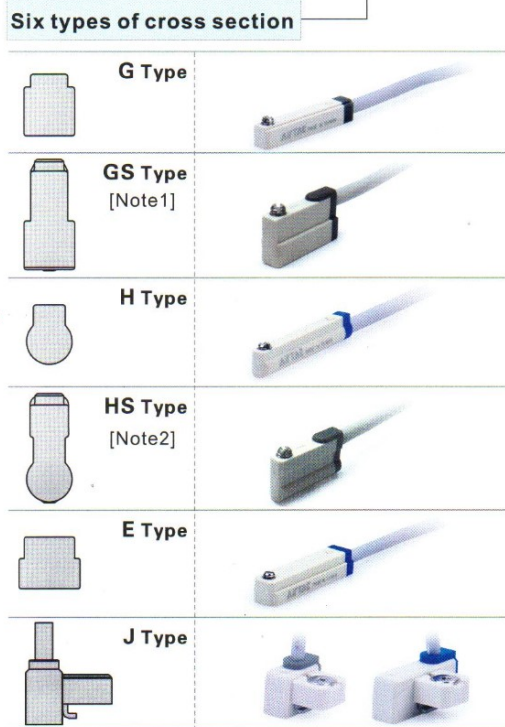
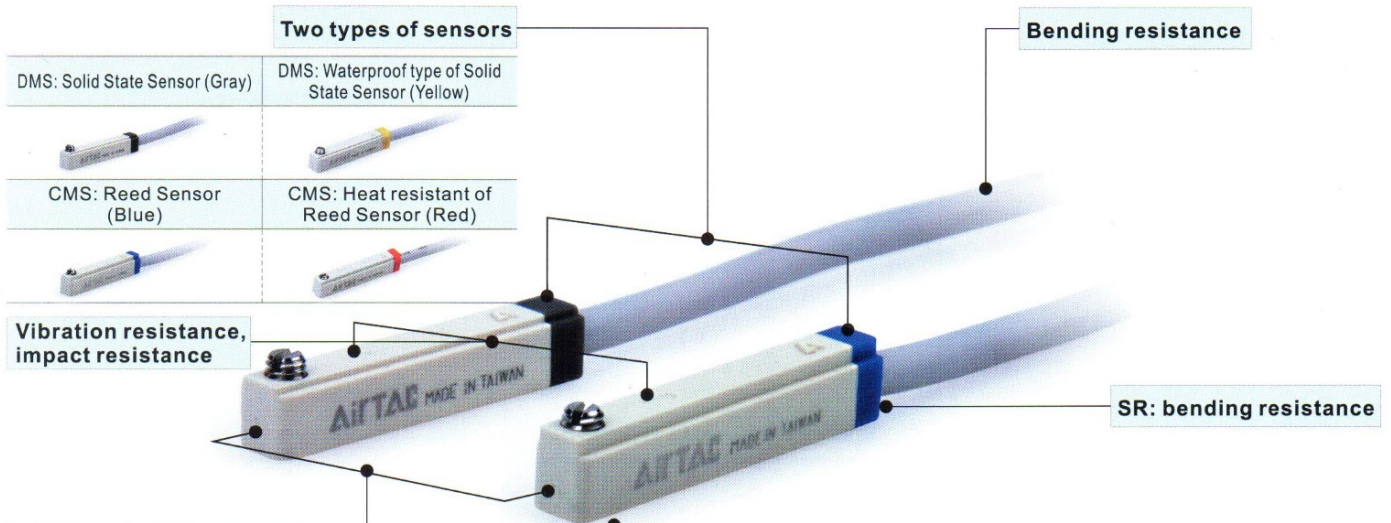


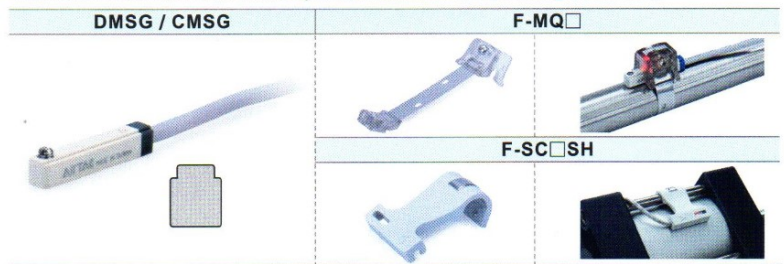


Compendium of DMS\CMS Series



Two kinds of accessories

DMSG/CMSG, Each size of the cylinder has its corresponding accessory.



[Note1] GS type is the mini type of G type, and it can be used for short stroke cylinder.

[Note2] HS type is the mini type of H type, and it can be used for short stroke cylinder.

DMS Specifications

| Item | DMS | | |
|-----------------------|--|----------------|-----|
| | 2-wire | NPN | PNP |
| Model | 2-wire | NPN | PNP |
| Power supply voltage | 10V ~ 28V DC | 5V ~ 30V DC | |
| Switching current | 2.5mA ~ 100mA | 30V/200mA Max. | |
| Contact capacity | 2.8W Max. | 6.0W Max. | |
| Current consumption | 3mA Max. | 5mA Max. | |
| Internal voltage drop | 2.7V Max. | 0.7V Max. | |
| Leakage current | 0.05mA Max. | 0.01mA Max. | |
| Switching frequency | 1000Hz | | |
| Impact resistance | 50G | | |
| Circuit protection | Reverse polarity protection Surge protection | | |
| Operating Temp. | -10°C ~ 70°C | | |
| Enclosure | IP64/IP68 | | |
| Standard | CE marking, RoHS | | |

CMS Specifications

| Item | CMS | |
|-----------------------|---------------------|----------------|
| | General | Heat resistant |
| Model | General | Heat resistant |
| Power supply voltage | 5V ~ 240V AC/DC | |
| Switching current | 100mA | |
| Contact capacity | 10W Max. | |
| Current consumption | N/A | |
| Internal voltage drop | 2.5V Max. @100mA DC | N/A |
| Leakage current | N/A | |
| Switching frequency | 200Hz | |
| Impact resistance | 50G | |
| Circuit protection | N/A | |
| Operating Temp. | -10°C ~ 70°C | -10°C ~ 125°C |
| Enclosure | IP64 | |
| Standard | CE marking, RoHS | |

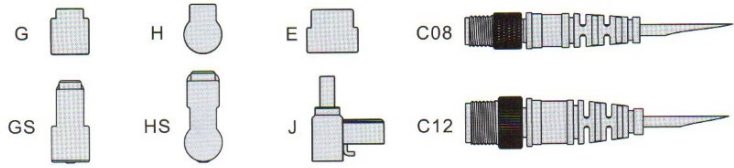


Sensor

DMS、CMS Series

Ordering code for DMS

DMS G - □ 020 - □



| | | | | | | |
|----------------------------|-----------------------------------|----|--------|------------------------------------|--------|---|
| ① Model | DMS: Solid State Sensor | | | | | |
| ② Specifications | G | GS | H | HS | E | J |
| ③ Output type | Blank: 2 wire | | N: NPN | | P: PNP | |
| ④ Lead wire length | 020: 2m 030: 3m 050: 5m | | | | | |
| ⑤ Additional specification | C08: 150mm with M8 plug connector | | | C12: 150mm with M12 plug connector | | |
| | Blank: General type | | | W: Waterproof type IP68 [note1] | | |

[Note 1] There is no waterproof type for C08 & C12.
The sockets of C08 and C12 need additional order. Please check on page23.

Ordering code for CMS

CMS G - 020 - □



| | | | | |
|----------------------------|-----------------------------------|---|------------------------------------|---|
| ① Model | CMS: Reed Sensor | | | |
| ② Specifications | G | H | E | J |
| ③ Lead wire length | 020: 2m 030: 3m 050: 5m | | | |
| ④ Additional specification | C08: 150mm with M8 plug connector | | C12: 150mm with M12 plug connector | |
| | Blank: General type | | H: Heat resistant [note2] | |

[Note 2] There is no heat resistant type for C08 & C12.
The sockets of C08 and C12 need additional order. Please check on page23.

Ordering code for accessories

F - MQ □

Cylinder Accessory



| | | | | | | | | | |
|------------|------------------------|------------|---------------|-----------------------------|------------|---------------|-----------------|------------------------------------|---------------|
| ① Category | F: Accessory | | | | | | | | |
| ② Model | MQ: Cylinder Accessory | | | | | | | | |
| ③ Cylinder | Aluminum alloy | | | Aluminum alloy (Thick type) | | | Stainless steel | | |
| | Code | For series | For bore size | Code | For series | For bore size | Code | For series | For bore size |
| | A20: Φ20mm | MCK | Φ20 | A32T: Φ32mm | TWG | Φ32 | S06: Φ6mm | PB/PBR MI MF MG MA/MAC | Φ6 |
| | A25: Φ25mm | | Φ25 | A40T: Φ40mm | | Φ40 | S08: Φ8mm | | Φ8 |
| | A32: Φ32mm | | Φ32 | A50T: Φ50mm | | Φ50 | S10: Φ10mm | | Φ10 |
| | A40: Φ40mm | MBL | Φ40 | | | S12: Φ12mm | Φ12 | | |
| | A50: Φ50mm | MAL | Φ50 | | | S16: Φ16mm | Φ16 | | |
| | A63: Φ63mm | | Φ63 | | | S20: Φ20mm | Φ20 | | |
| | A80: Φ80mm | | Φ80 | | | S25: Φ25mm | Φ25 | | |
| | | | | | S32: Φ32mm | Φ32 | | | |
| | | | | | S40: Φ40mm | Φ40 | | | |
| | | | | | S50: Φ50mm | Φ50 | | | |
| | | | | | S63: Φ63mm | Φ63 | | | |

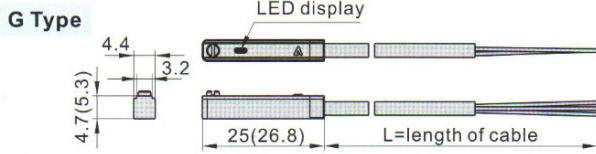
F - SC □ SH

Tie Rod Cylinder Accessory

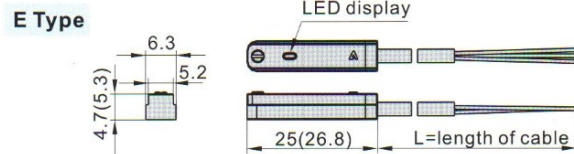


| | | | | |
|------------|--------------------------------|------------|---------------|--|
| ① Category | F: Accessory | | | |
| ② Model | SC: Tie Rod Cylinder Accessory | | | |
| ③ Cylinder | Code | For series | For bore size | |
| | 32 | SC SGC | Φ32, Φ40, Φ50 | |
| | 63 | | Φ63 | |
| | 80 | | Φ80, Φ100 | |
| | 125 | | Φ125 | |
| 160 | Φ160, Φ200 | | | |
| ④ Attached | 250 | | Φ250 | |

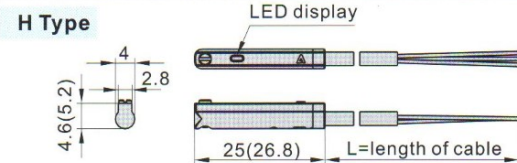
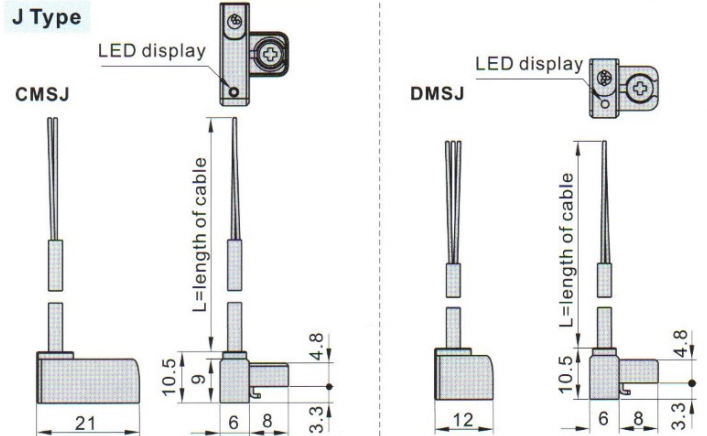
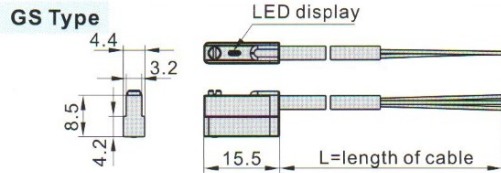
Dimensions



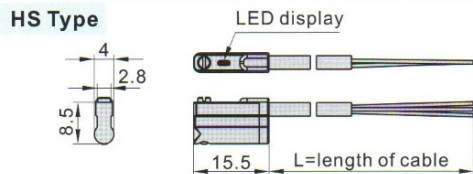
Note: a number in the bracket is the dimension of CMSG.



Note: a number in the bracket is the dimension of CMSE.



Note: a number in the bracket is the dimension of CMSH.

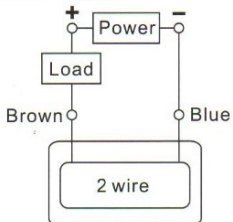


| length of cable specification | length of cable(L) |
|-------------------------------|--------------------|
| 020 Type | 2000mm |
| 030 Type | 3000mm |
| 050 Type | 5000mm |

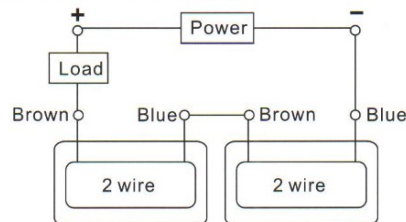
Connection method

2 wire, reed sensor connection

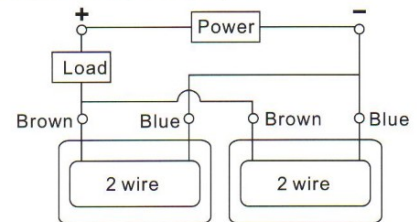
1.General connection



2.Series connection(And)

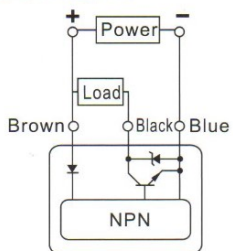


3.Parallel connection(OR)



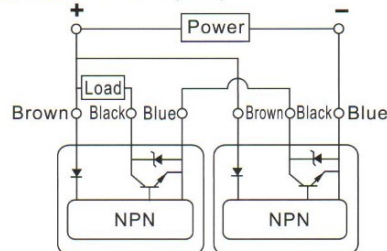
3 wire, solid state NPN connection

1.General connection

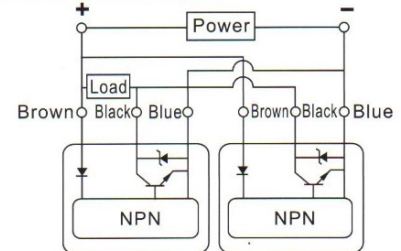


Note: The indicator lights will light up when both auto switches are turned NO.

2.Series connection(And)

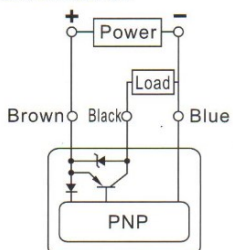


3.Parallel connection(OR)



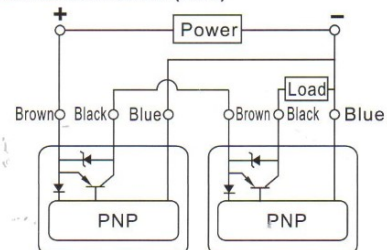
3 wire, solid state PNP connection

1.General connection

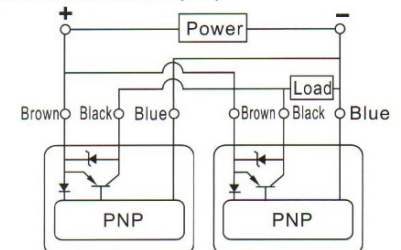


Note: The indicator lights will light up when both auto switches are turned NO.

2.Series connection(And)



3.Parallel connection(OR)



The selection of sensor

| DMSG(S) | CMSG | ACP | | | | | | | | | | ACQITACQ | | | | | | | | | | SDA | | | | | | | | | | | | | |
|---------|------|----------------|----|----|----|----|---------|----|----|----|-----|-----------------------------|----|----|----|----|---------|-----|-----|-----|-----|--|-----|-----|-----|----|----|----|----|----|----|----|----|-----|--|
| | | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 140 | 160 | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | |
| | | TWQ | | | | | TCL\TCM | | | | | QCK | | | | | TWH\TWM | | | | | | | | | | | | | | | | | | |
| | | 20 | 25 | 32 | 40 | 50 | 6 | 10 | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | | |
| | | SAU | | | | | HFZ | | | | | HFY | | | | | HFP | | | | | MD\MK | | | | | | | | | | | | | |
| | | 32 | 40 | 50 | 63 | 80 | 100 | 6 | 10 | 16 | 20 | 25 | 32 | 40 | 6 | 10 | 16 | 20 | 25 | 32 | 10 | 16 | 20 | 25 | 32 | 6 | 10 | 16 | 20 | 25 | 32 | | | | |
| | | TR | | | | | STW | | | | | HFK | | | | | | | | | | | | | | | | | | | | | | | |
| | | 6 | 10 | 16 | 20 | 25 | 32 | 10 | 16 | 20 | 25 | 32 | 10 | 16 | 20 | 25 | 32 | 40 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | Stainless steel | | | | | | | | | | | | | | | | | | | | | | | |
| | | PB\BPR | | | | | MI | | | | | MF | | | | | MG | | | | | MA\MAC | | | | | | | | | | | | | |
| | | 6 | 8 | 10 | 12 | 16 | 8 | 10 | 12 | 16 | 20 | 25 | 32 | 40 | 20 | 25 | 32 | 40 | 20 | 25 | 32 | 40 | 50 | 63 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | | | | |
| | | Aluminum alloy | | | | | | | | | | Aluminum alloy (Thick type) | | | | | | | | | | | | | | | | | | | | | | | |
| | | MAL | | | | | MBL | | | | | MCK | | | | | TWG | | | | | | | | | | | | | | | | | | |
| | | 20 | 25 | 32 | 40 | 20 | 25 | 32 | 50 | 50 | 63 | 25 | 32 | 40 | 50 | 63 | 80 | 32 | 40 | 50 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | SC | | | | | SGC | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 200 | 250 | 125 | 160 | 200 | 250 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | It needs an accessory to mount a sense on a cylinder | | | | | | | | | | | | | |

| DMSJ | CMSJ | ACQITACQ | | | | | | | | | | SDA | | | | | | | | | | TWQ | | | | | QCK | | | | | QDK | | | | | TN | | | | |
|------|------|----------|----|----|----|----|-----|----|----|----|----|-----|----|----|----|----|-----|----|----|----|----|-----|----|----|----|----|-----|----|----|----|----|-----|----|--|--|--|----|--|--|--|--|
| | | 32 | 40 | 50 | 63 | 80 | 100 | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 32 | 40 | 50 | 32 | 40 | 50 | 63 | 20 | 25 | 32 | 40 | 10 | 16 | 20 | 25 | 32 | | | | | | | | |
| | | TWH\TWM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 20 | 25 | 32 | 40 | 50 | 63 | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| DMSH(S) | CMSH | ACQITACQ | | | | | TC | | | | | HFZ | | | | | HFY | | | | | HFP | | | | | HFR | | | | | HFC | | | | | HFT | | | | | | | | | | | | | |
|---------|------|----------|-----|-----|----|----|----------|----|----|-----|-----|----------|----|----|----|----|-----|----|----|----|----|-----|----|----|----|----|-----|---|----|----|----|-----|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | | 125 | 140 | 160 | 6 | 10 | 6 | 10 | 16 | 20 | 25 | 32 | 40 | 6 | 10 | 16 | 20 | 25 | 32 | 40 | 6 | 10 | 16 | 20 | 25 | 32 | 40 | 6 | 10 | 16 | 20 | 25 | 32 | 10 | 16 | 20 | 25 | 32 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 10 | 16 | 20 | 25 | 32 |
| | | QDK | | | | | HLQ\HLQL | | | | | HLS\HLSL | | | | | MU | | | | | HLH | | | | | MPG | | | | | | | | | | | | | | | | | | | | | | | |
| | | 20 | 25 | 32 | 40 | 6 | 8 | 12 | 16 | 20 | 25 | 6 | 8 | 12 | 16 | 20 | 25 | 6 | 8 | 12 | 16 | 20 | 6 | 8 | 12 | 16 | 20 | 6 | 10 | 16 | 20 | 6 | 8 | 10 | 12 | 16 | | | | | | | | | | | | | | |
| | | HRQ | | | | | | | | | | HFK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 2 | 3 | 7 | 10 | 20 | 30 | 50 | 70 | 100 | 200 | 10 | 16 | 20 | 25 | 32 | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| DMSE | CMSE | SE/BSE | | | | | | | | | | SAI | | | | | | | | | | ACE | | | | | | | | | |
|------|------|--------|----|----|----|----|-----|-----|----|----|----|-----|----|-----|-----|-----|-----|----|----|----|----|-----|----|----|----|----|-----|--|--|--|--|
| | | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 200 | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Replacement

| New | |
|-----------------------|--|
| DMSG / DMSG(S) / CMSG | |
| | |
| DMSG(S)-020 | |
| DMSG(S)-030 | |
| DMSG(S)-050 | |
| DMSG(S)-C08 | |
| DMSG(S)-C12 | |
| DMSG(S)-020-W | |
| DMSG(S)-030-W | |
| DMSG(S)-050-W | |
| DMSG(S)-N020(-W) | |
| DMSG(S)-N030(-W) | |
| DMSG(S)-N050(-W) | |
| DMSG(S)-NC08 | |
| DMSG(S)-NC12 | |
| DMSG(S)-P020(-W) | |
| DMSG(S)-P030(-W) | |
| DMSG(S)-P050(-W) | |
| DMSG(S)-PC08 | |
| DMSG(S)-PC12 | |
| CMSG-020 | |
| CMSG-030 | |
| CMSG-050 | |
| CMSG-C08 | |
| CMSG-C12 | |
| CMSG-020-H | |
| CMSG-030-H | |
| CMSG-050-H | |
| - | |
| - | |

Ordering code

| Previous | |
|------------------------------|--|
| DS1-G / CS1-G | |
| | |
| DS1G020 | |
| DS1G030 | |
| DS1G050 | |
| DS1GC08 | |
| DS1GC12 | |
| - | |
| - | |
| - | |
| DS1GN020(No Waterproof type) | |
| DS1GN030(No Waterproof type) | |
| DS1GN050(No Waterproof type) | |
| DS1GNC08 | |
| DS1GNC12 | |
| DS1GP020(No Waterproof type) | |
| DS1GP030(No Waterproof type) | |
| DS1GP050(No Waterproof type) | |
| DS1GPC08 | |
| DS1GPC12 | |
| CS1G020 | |
| CS1G030 | |
| CS1G050 | |
| CS1GC08 | |
| CS1GC12 | |
| CS1G020HT | |
| CS1G030HT | |
| CS1G050HT | |
| CS1GC08HT | |
| CS1GC12HT | |

| New | |
|---------------|--|
| DMSJ / CMSJ | |
| | |
| DMSJ-020 | |
| DMSJ-030 | |
| DMSJ-050 | |
| DMSJ-C08 | |
| DMSJ-C12 | |
| DMSJ-020-W | |
| DMSJ-030-W | |
| DMSJ-050-W | |
| DMSJ-N020(-W) | |
| DMSJ-N030(-W) | |
| DMSJ-N050(-W) | |
| DMSJ-NC08 | |
| DMSJ-NC12 | |
| DMSJ-P020(-W) | |
| DMSJ-P030(-W) | |
| DMSJ-P050(-W) | |
| DMSJ-PC08 | |
| DMSJ-PC12 | |
| CMSJ-020 | |
| CMSJ-030 | |
| CMSJ-050 | |
| CMSJ-C08 | |
| CMSJ-C12 | |
| CMSJ-020-H | |
| CMSJ-030-H | |
| CMSJ-050-H | |
| - | |
| - | |

| Previous | |
|------------------------------|--|
| DS1-J / CS1-J | |
| | |
| DS1J020 | |
| DS1J030 | |
| DS1J050 | |
| DS1JC08 | |
| DS1JC12 | |
| - | |
| - | |
| - | |
| DS1JN020(No Waterproof type) | |
| DS1JN030(No Waterproof type) | |
| DS1JN050(No Waterproof type) | |
| DS1JNC08 | |
| DS1JNC12 | |
| DS1JP020(No Waterproof type) | |
| DS1JP030(No Waterproof type) | |
| DS1JP050(No Waterproof type) | |
| DS1JPC08 | |
| DS1JPC12 | |
| CS1J020 | |
| CS1J030 | |
| CS1J050 | |
| CS1JC08 | |
| CS1JC12 | |
| CS1J020HT | |
| CS1J030HT | |
| CS1J050HT | |
| CS1JC08HT | |
| CS1JC12HT | |

| New | |
|---------------|--|
| DMSE / CMSE | |
| | |
| DMSE-020 | |
| DMSE-030 | |
| DMSE-050 | |
| DMSE-C08 | |
| DMSE-C12 | |
| DMSE-020-W | |
| DMSE-030-W | |
| DMSE-050-W | |
| DMSE-N020(-W) | |
| DMSE-N030(-W) | |
| DMSE-N050(-W) | |
| DMSE-NC08 | |
| DMSE-NC12 | |
| DMSE-P020(-W) | |
| DMSE-P030(-W) | |
| DMSE-P050(-W) | |
| DMSE-PC08 | |
| DMSE-PC12 | |
| CMSE-020 | |
| CMSE-030 | |
| CMSE-050 | |
| CMSE-C08 | |
| CMSE-C12 | |
| CMSE-020-H | |
| CMSE-030-H | |
| CMSE-050-H | |
| - | |
| - | |

Ordering code

| Previous | |
|------------------------------|--|
| DS1-E / CS1-E | |
| | |
| DS1E020 | |
| DS1E030 | |
| DS1E050 | |
| DS1EC08 | |
| DS1EC12 | |
| - | |
| - | |
| - | |
| DS1EN020(No Waterproof type) | |
| DS1EN030(No Waterproof type) | |
| DS1EN050(No Waterproof type) | |
| DS1ENC08 | |
| DS1ENC12 | |
| DS1EP020(No Waterproof type) | |
| DS1EP030(No Waterproof type) | |
| DS1EP050(No Waterproof type) | |
| DS1EPC08 | |
| DS1EPC12 | |
| CS1E020 | |
| CS1E030 | |
| CS1E050 | |
| CS1EC08 | |
| CS1EC12 | |
| CS1E020HT | |
| CS1E030HT | |
| CS1E050HT | |
| CS1EC08HT | |
| CS1EC12HT | |

| New | |
|---------------------|--|
| DMSH / DMSHS / CMSH | |
| | |
| DMSH(S)-020 | |
| DMSH(S)-030 | |
| DMSH(S)-050 | |
| DMSH(S)-C08 | |
| DMSH(S)-C12 | |
| DMSH(S)-020-W | |
| DMSH(S)-030-W | |
| DMSH(S)-050-W | |
| DMSH(S)-N020(-W) | |
| DMSH(S)-N030(-W) | |
| DMSH(S)-N050(-W) | |
| DMSH(S)-NC08 | |
| DMSH(S)-NC12 | |
| DMSH(S)-P020(-W) | |
| DMSH(S)-P030(-W) | |
| DMSH(S)-P050(-W) | |
| DMSH(S)-PC08 | |
| DMSH(S)-PC12 | |
| CMSH-020 | |
| CMSH-030 | |
| CMSH-050 | |
| CMSH-C08 | |
| CMSH-C12 | |
| CMSH-020-H | |
| CMSH-030-H | |
| CMSH-050-H | |
| - | |
| - | |

| Previous | |
|------------------------------|--|
| DS1-H / CS1-H | |
| | |
| DS1H020 | |
| DS1H030 | |
| DS1H050 | |
| DS1HC08 | |
| DS1HC12 | |
| - | |
| - | |
| - | |
| DS1HN020(No Waterproof type) | |
| DS1HN030(No Waterproof type) | |
| DS1HN050(No Waterproof type) | |
| DS1HNC08 | |
| DS1HNC12 | |
| DS1HP020(No Waterproof type) | |
| DS1HP030(No Waterproof type) | |
| DS1HP050(No Waterproof type) | |
| DS1HPC08 | |
| DS1HPC12 | |
| CS1H020 | |
| CS1H030 | |
| CS1H050 | |
| CS1HC08 | |
| CS1HC12 | |
| CS1H020HT | |
| CS1H030HT | |
| CS1H050HT | |
| CS1HC08HT | |
| CS1HC12HT | |