

Specification
for
General purpose AC Servo
Long Distance Encoder cable

Type SC-ENE4CBL□M-H-MTH

MITSUBISHI ELECTRIC
SYSTEM & SERVICE CO.,LTD

Note

| Revision | | | | | | | | Drawn | Check | Design | Approved |
|----------|--|--|--|--|--|--|--|-----------------|-------------------|-------------------|---------------------|
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| | | | | | | | | | | | |
| Send to | | | | | | | | Date | | Dwg | |
| | | | | | | | | 22 Mar.,2016 | | X903703D50052-E86 | |
| | | | | | | | | Order | | | |
| | | | | | | | | | | | |

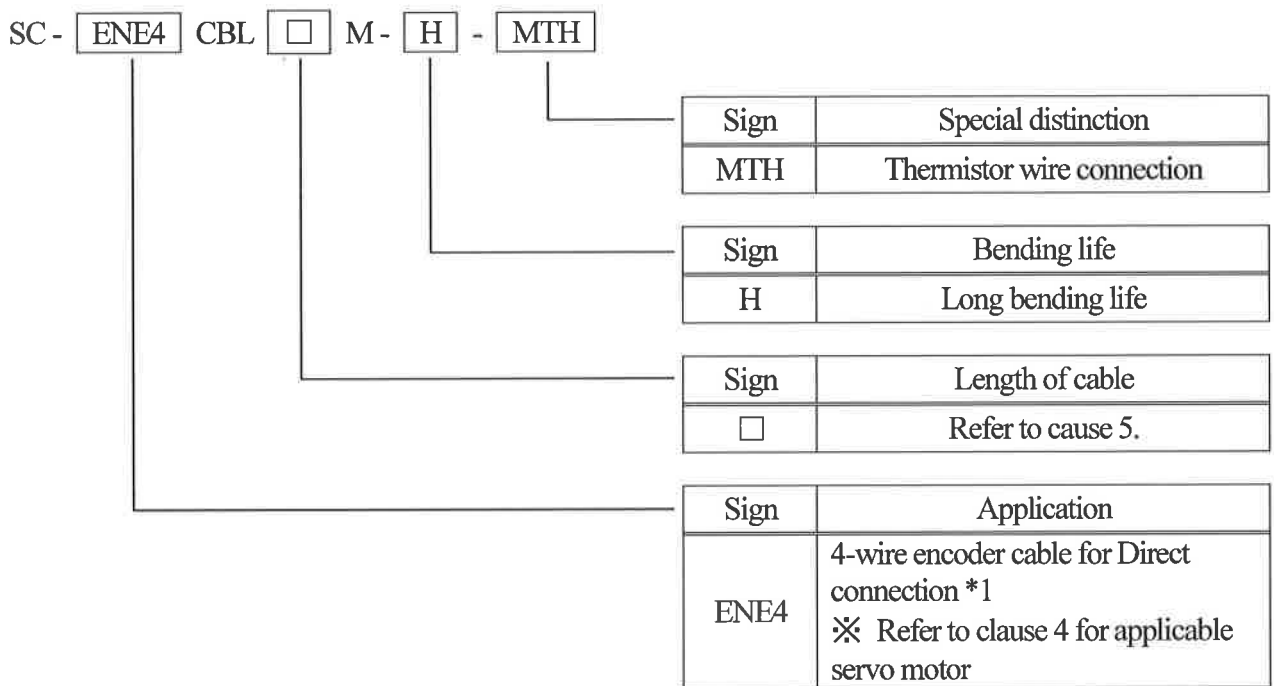
1. SCOPE

This specification covers the requirements for the General purpose AC Servo Long Distance Encoder cable type SC-ENE4CBL□M-H-MTH.

※ This cable doesn't include the toxic substances in RoHS (Lead, Mercury, Cadmium, Hexavalent Chromium, PBDE, PBB).

※ UL's Wiring Harnesses Traceability program provides traceability for this cable.

2. CABLE TYPE



*1 This cable is available in 4-wire type. Parameter setting is required to use the 4-wire type encoder cable. Refer to "SERVO AMPLIFIER INSTRUCTION MANUAL issued by Mitsubishi Electric Corporation" for more details.

3. APPLICABLE STANDARDS

UL758 AWM STYLE 20276 (wire part)

4. APPLICABLE SERVO MOTOR

HG-JR601, 801, 12K1, 15K1, 20K1, 25K1, 30K1, 37K1

6014, 8014, 12K14, 15K14, 20K14, 25K14, 30K14, 37K14

701M, 11K1M, 15K1M, 22K1M, 30K1M, 37K1M

701M4, 11K1M4, 15K1M4, 22K1M4, 30K1M4, 37K1M4, 45K1M4, 55K1M4 motor

5. LENGTH OF CABLE

1 to 85m

Specified by 1m unit (1~50m) / Specified by 5m unit (55~85m)

6. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-ENE4CBL□M-H-MTH ×××××××

※ □ is a figure from 1 to 85.

※ ××××××× are the serial number for seven digits.

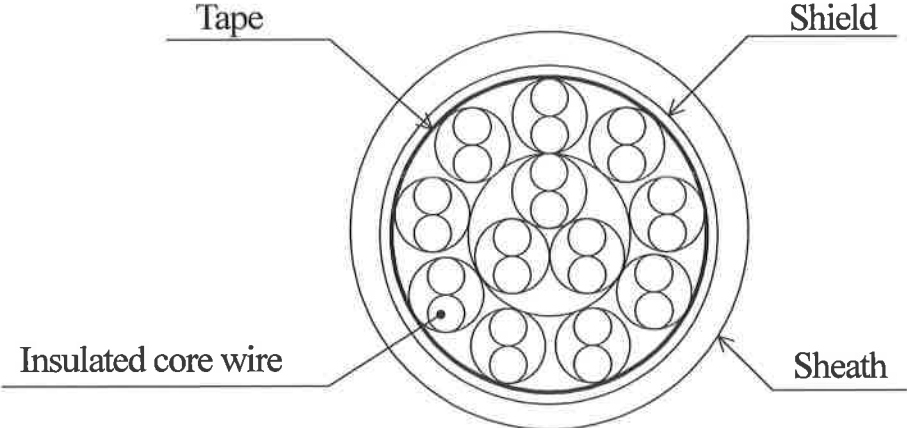
7. STRUCTURE AND CHARACTERISTICS

| Item | | Unit | Specification |
|-----------------------------|-----------------------------------|----------------|---|
| Structure | | — | AWG25×12P |
| Conductor | Conductor size | — | AWG25 |
| | Outer diameter | mm | Approx. 0.58 |
| Insulation | Material | — | ETFE |
| | Outer diameter | mm | Approx. 0.88 |
| Twisted pair | Number of insulated core wire | — | 2C |
| | Outer diameter | mm | 1.8 |
| Twisted | Number of pairs (central layer) | — | 3P |
| | Number of pairs (the first layer) | — | 9P |
| Shield | Material | — | Tin coated copper braid |
| Sheath | Material | — | Flame resisting PVC |
| | Color | — | Black |
| Overall diameter | | mm | Approx. 8.9 |
| Electrical characteristics | Insulation resistance | MΩ · km | Over 100 |
| | Withstand voltage | V for 1 minute | AC500 |
| Operating temperature range | | °C | -10~+60 (without condensation) |
| Minimum Radius Bend | | mm | Over 55 |
| Bending Life | | — | Over one million times* ¹ (Radius Bend 55mm) |
| Flame Retardant | | — | UL1581 VW-1 |
| Connector | Servo amplifier side | Type | 3M Japan 36210-0100PL (Receptacle) 36310-3200-008 (Shell kit) |
| | | IP rating | IP20* ² |
| | Servo motor side | Type | DDK D/MS3106A20-29S (D190) (Plug) CE02-20BS-S-D (Back shell) CE3057-12A-3-D (Cable crump) |
| | | IP rating | IP67* ² |

*1 It is a test outcome, and not a guaranteed value. (The performance is different according to customer's environment.)

*2 The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/servo motor. If the IP rating of the servo amplifier/servo motor differs from that of these connectors, overall IP rating depends on the lowest of all.

8. STRUCTURAL DRAWING



9. OUTLINE DRAWING

[Unit : mm]

