AMI Duplexer for SCADA Systems™

MODEL SDAW - WALL-MOUNT VERSION

AMI

ETHERMETER

MODEL SDAW
AMI DUPLEXER

ENCODER-TYPE
WATER METER

MADE IN USA

RoHS Compliant

AWWA C707-05 COMPLIANT

2 YEAR WARRANTY
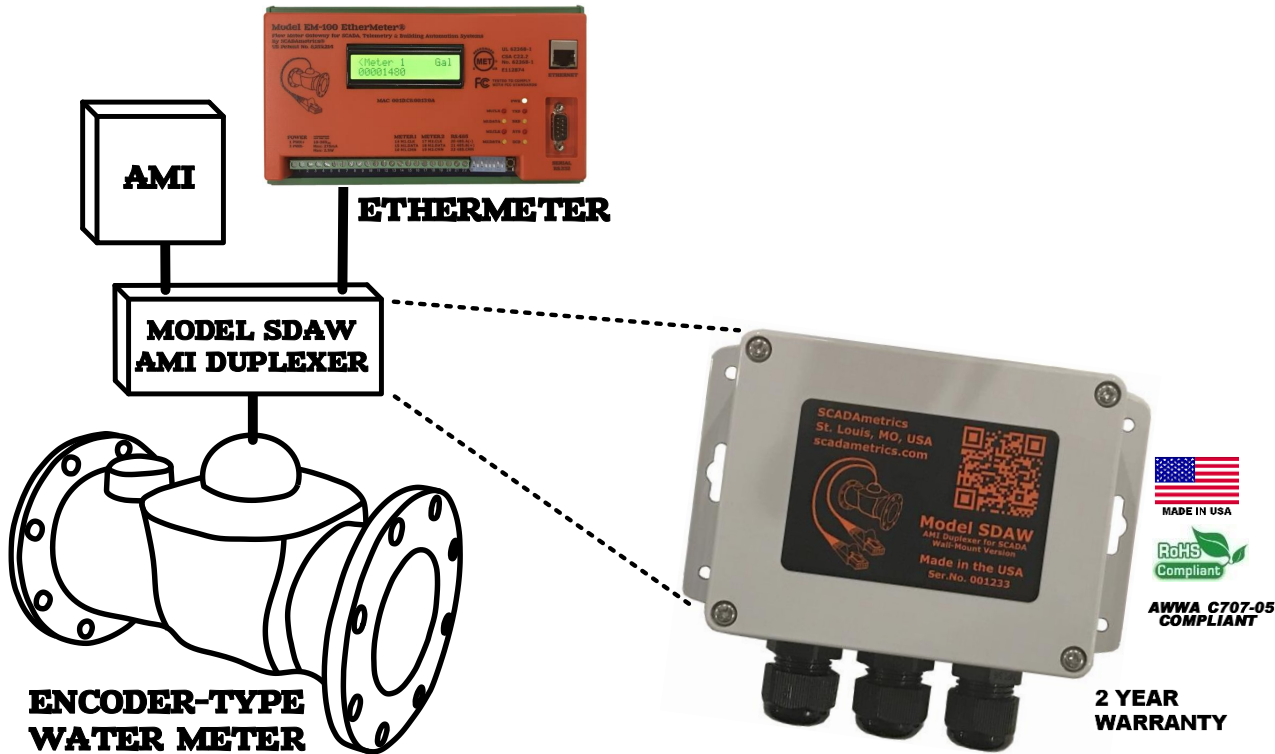
Revenue-Grade Water Meter Accuracy: Now Available to the Utility's Billing Department and SCADA System Simultaneously...

You have an AMI-capable water meter, and you are quite satisfied with its ability to transmit revenue-grade readings into your AMI system – but in certain situations, wouldn't it be useful if you could collect those same revenue-grade readings into your SCADA system, as well?

The **Model SDAW "AMI Duplexer for SCADA Systems – Wall-Mount Version"** was designed for that exact purpose!

The **AMI Duplexer** enables the splitting of AMI signals from every major AMI-capable water meter to every major AMI/AMR/Visual endpoint in the industry – including those from **Sensus**, **Neptune**, **Metron-Farnier**, **Kemp-Meek**, **Aclara**, **Mueller**, **Kamstrup**, **Badger**, **Master Meter**, **RG3**, **Zenner**, **Itron**, **Elster-AMCO**, **McCrometer**, and many others!

The **SDAW** is housed within a weather-resistant, polycarbonate NEMA-4X enclosure suitable for outdoor installations. The SDAW is **not** rated for submersion.
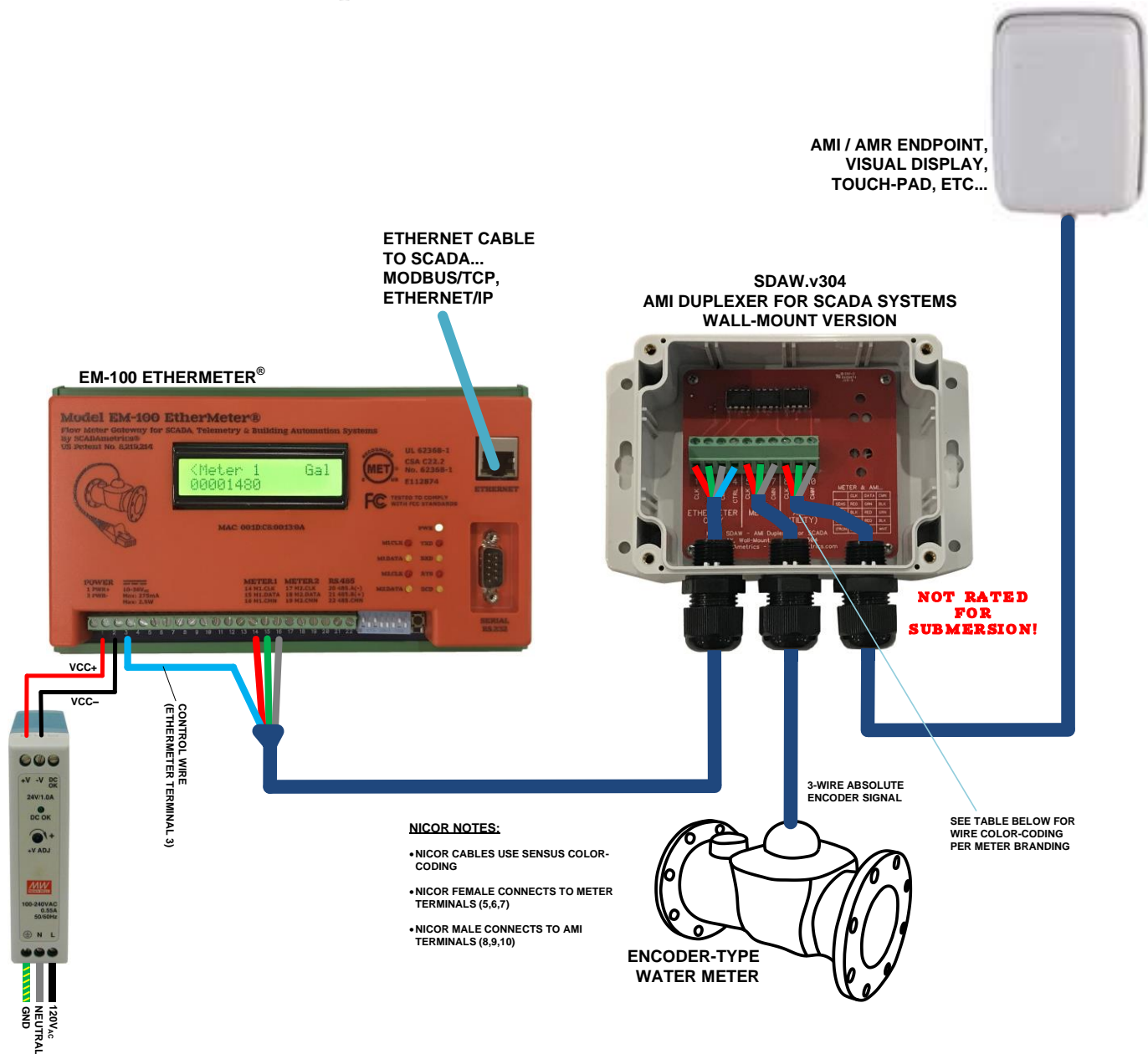
The **AMI Duplexer** maintains all the popular functionality contained within our retired **Radio-Read Filter** which led to its widespread acceptance at major water utilities throughout the United States and Canada – PLUS the additions of an attractive, compact din-rail case and a convenient removable terminal block.

It is important to note that the models **SDAW and SDA "AMI Duplexer for SCADA Systems"** are designed to **only** split a meter signal to a SCADAmetrics EtherMeter plus a third-party AMI device. If signal splitting to strictly non-EtherMeter devices is desired, then the **UDA "Universal Duplexer for AMI"** is the recommended signal splitter.

Are you interested in how SCADAmetrics technology can help you to eliminate pulse-counting errors and split a water meter's encoder signal to both your AMI and SCADA systems? Give us a call! We'll be glad to discuss the details!

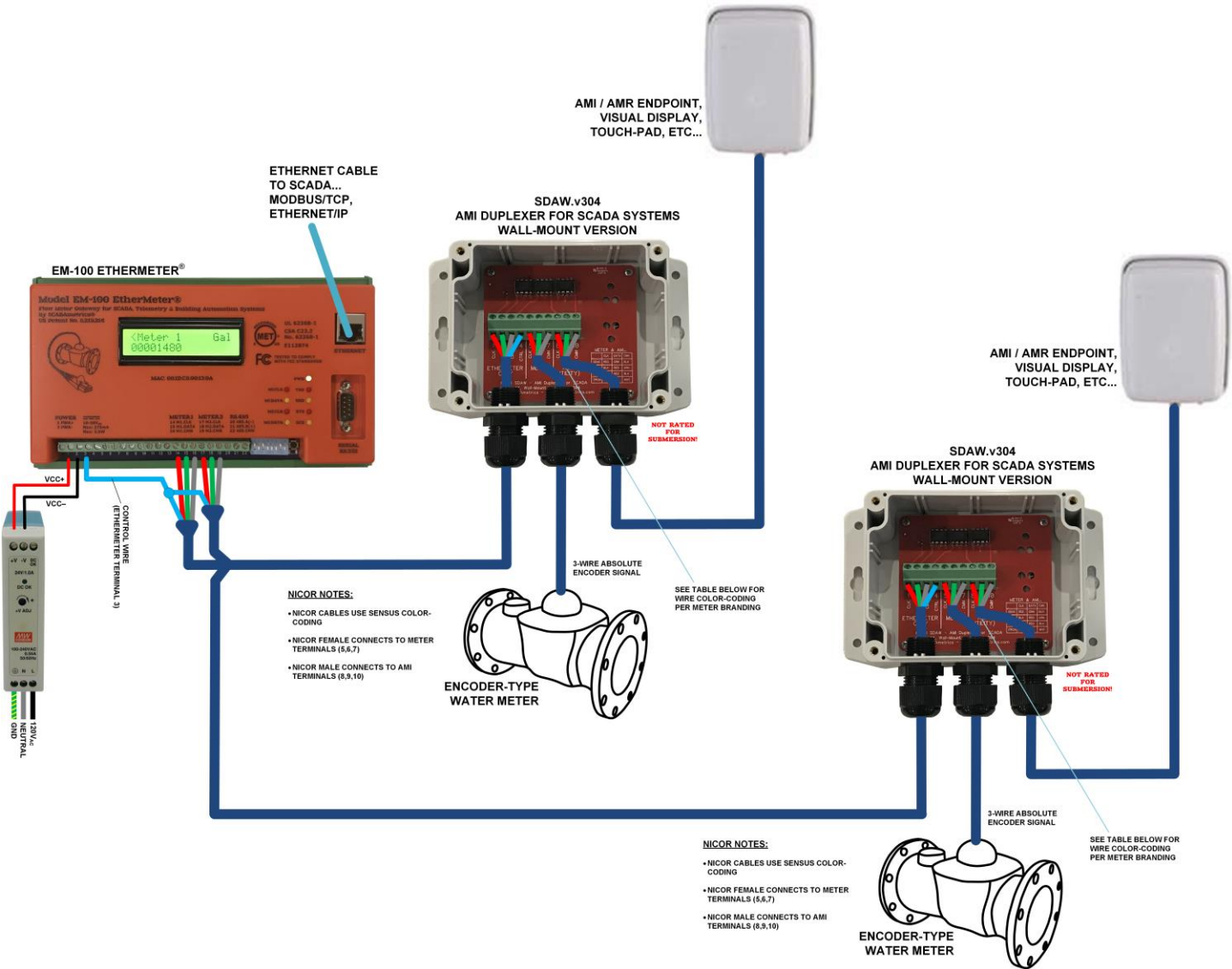**SCADAmetrics**
scadametrics.com
Wildwood, Missouri USA
636.405.7101

Terminal Block Hookup - 1 Meter:

AMI / AMR ENDPOINT,
VISUAL DISPLAY,
TOUCH-PAD, ETC...

ETHERNET CABLE
TO SCADA...
MODBUS/TCP,
ETHERNET/IP

SDAW.v304
AMI DUPLEXER FOR SCADA SYSTEMS
WALL-MOUNT VERSION

EM-100 ETHERMETER®

Model EM-100 EtherMeter®
Flow Meter Gateway for SCADA Telemetry & Building Automation Systems
by SCADAmetrics®
US Patent No. 8,315,234

<Meter 1   Gal
0001480

MAC 001D:C8:00:13:0A

NOT RATED
FOR
SUBMERSION!

VCC+
VCC–

CONTROL WIRE
(ETHERMETER TERMINAL 3)

3-WIRE ABSOLUTE
ENCODER SIGNAL

SEE TABLE BELOW FOR
WIRE COLOR-CODING
PER METER BRANDING

NICOR NOTES:

- NICOR CABLES USE SENSUS COLOR-CODING
- NICOR FEMALE CONNECTS TO METER TERMINALS (5,6,7)
- NICOR MALE CONNECTS TO AMI TERMINALS (8,9,10)

ENCODER-TYPE
WATER METER

120VAC
NEUTRAL
GND

Terminal	Function	Sensus Color (Badger, Metron-Farnier, Master Meter, Kamstrup, Mueller, Zenner, RG3, Aclara)	Neptune Color	Elster Color
1	EtherMeter/SCADA Clock	Red	Black	Wht|Grn
2	EtherMeter/SCADA Data	Green|White	Red	Red
3	EtherMeter/SCADA Ground	Black	Green	Black
4	EtherMeter/SCADA Control	Blue*	Blue*	Blue*
5	Water Meter Clock	Red	Black	Wht|Grn
6	Water Meter Data	Green|White	Red	Red
7	Water Meter Ground	Black	Green	Black
8	AMI Clock	Red	Black	Wht|Grn
9	AMI Data	Green|White	Red	Red
10	AMI Ground	Black	Green	Black

*Blue is Suggested, But Any Color Wire Can Be Used.

Terminal Block Hookup - 2 Meters:

AMI / AMR ENDPOINT,
VISUAL DISPLAY,
TOUCH-PAD, ETC...

ETHERNET CABLE
TO SCADA...
MODBUS/TCP,
ETHERNET/IP

SDAW.v304
AMI DUPLEXER FOR SCADA SYSTEMS
WALL-MOUNT VERSION

EM-100 ETHERMETER®

Model EM-100 EtherMeter®
Flow Meter Gateway for SCADA, Telemetry & Building Automation Systems
by SCADAmetrics
US Patent No. 8291284

UL 62368-1
CSA C22.2
No. 62368-1
E113874

<Meter 1   Gal
00001480

MAC 0012CE:001200A

POWER   METER1 METER2 RS-485
3 PIN(+)   14 M1.CLK   17 M2.CLK   20 485.B(+)
3 PIN(-)   15 M1.DATA 18 M2.DATA 21 485.A(-)
               16 M1.COM   19 M2.COM   22 485.COM

VCC+

VCC−

CONTROL WIRE
(ETHERMETER TERMINAL 3)

+V -V DC
OK

24V/1.0A

DC OK

+V ADJ

100-240VAC
0.55A
50/60Hz

H L

120VAC
NEUTRAL
GND

NICOR NOTES:
- NICOR CABLES USE SENSUS COLOR-CODING
- NICOR FEMALE CONNECTS TO METER TERMINALS (5,6,7)
- NICOR MALE CONNECTS TO AMI TERMINALS (8,9,10)

3-WIRE ABSOLUTE
ENCODER SIGNAL

SEE TABLE BELOW FOR
WIRE COLOR-CODING
PER METER BRANDING

NOT RATED
FOR
SUBMERSION!

ENCODER-TYPE
WATER METER

AMI / AMR ENDPOINT,
VISUAL DISPLAY,
TOUCH-PAD, ETC...

SDAW.v304
AMI DUPLEXER FOR SCADA SYSTEMS
WALL-MOUNT VERSION

NOT RATED
FOR
SUBMERSION!

NICOR NOTES:
- NICOR CABLES USE SENSUS COLOR-CODING
- NICOR FEMALE CONNECTS TO METER TERMINALS (5,6,7)
- NICOR MALE CONNECTS TO AMI TERMINALS (8,9,10)

3-WIRE ABSOLUTE
ENCODER SIGNAL

SEE TABLE BELOW FOR
WIRE COLOR-CODING
PER METER BRANDING

ENCODER-TYPE
WATER METER

Specifications:

Dimensions:	5.6875" x 4.875" x 2.25"
Weight:	10.4 Ounces
Temperature:	-40C to 85C (-40°F to 185°F)
Relative Humidity:	5% to 95%, Non-Condensing
Enclosure Rating:	NEMA-4X, Not Rated for Submersion
Environmental:	ROHS-Compliant, Lead-Free
Meter Interface:	AWWA C707-05
External Power/Battery:	None Required
Manufacturing Location:	USA
Warranty:	2 Years (see www.scadametrics.com for details)

Engineering Dimensions:

5.6875"

4.875"

2.250"
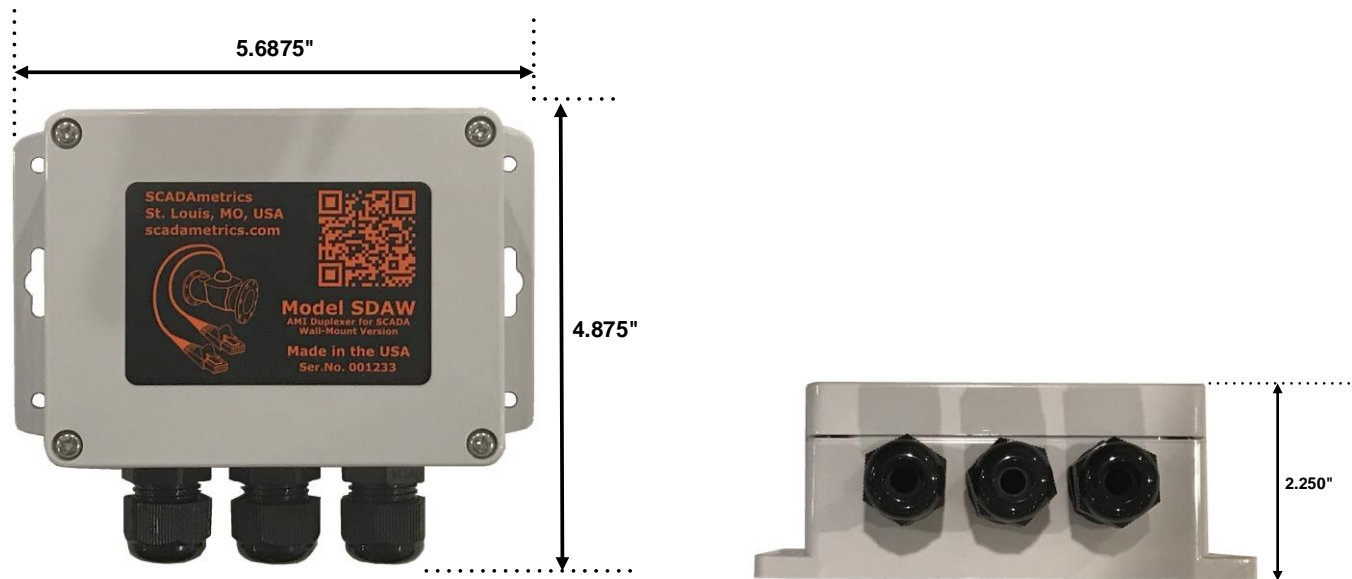
Model SDAW, "SCADA Duplexer, Wall-Mount-Version" – Nicor Connector Option

In order to even further simplify installation and to minimize wiring errors, SCADAmetrics is pleased to offer a Nicor Connector Option (additional cost) that is useful wherever the utility-owned water meters and AMR endpoints are also outfitted with industry-standard Nicor connectors.

Notes:

1. With the exceptions of Neptune Technology Group and Elster-AMCO (Honeywell), most meter manufacturers follow the Sensus wire color-coding scheme.

2. SDA Meter Terminal Block Hookup (Terminals 5,6,7): Apply the color-coding that pertains to the manufacturer of the Water Meter.

3. SDA AMI/AMR Terminal Block Hookup (Terminals 8,9,10): Apply the color-coding that pertains to the manufacturer of the AMI/AMR Endpoint.

4. SDA SCADA Terminal Block Hookup (Terminals 1,2,3): Apply the color-coding that pertains to the manufacturer of the Water Meter.

5. SDA Control Terminal Block Hookup (Terminal 4): Connect this terminal to EtherMeter.Terminal.3

6. EtherMeter Terminal Block Hookup: When using channel.1, connect to Terminals 14,15,16. When using channel.2, connect to Terminals 17,18,19.

7. Alternative color-coding: manufacturers occasionally substitute a WHITE wire for a GREEN wire.

8. If the EtherMeter experiences reading faults to the flow meter, via the SDA, then connect all three (3) meter signal common (CMN) wires together at SDAW Terminal.3